

Arizona State University

Course Catalog Archive

2009-2010



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For inquiries or questions please contact academic.catalog@asu.edu.

Course Component	Description
Fieldwork (FLD)	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.
Individualized Instruction (IND)	A class in which an individual student is provided an opportunity for original study or investigation in a major or field of specialization on a more autonomous basis. Normally a contract or plan is used and supervised by faculty and/or practitioners.
Integrated Lecture/Lab (LEL)	Integrated lecture/lab is a class that has some lecture and some hands-on components but do not require a separate time like a traditional lab.
Laboratory (LAB)	The hands-on, workshop component of a class usually held in a laboratory. The laboratory time is separate from the lecture although it is often associated to a lecture(s).
Lecture (LEC)	A traditional method of instruction in which students are taught a subject by a member of the faculty.
Practicum (PRA)	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely. Internships and student teaching fit into this category. These classes are often held off campus at a professional location.
Recitation (REC)	Recitations are small interactional meetings that combine formal presentations, review, and interaction between the students and an instructor. These are small interactional meetings and are usually combined with a lecture as the primary component. Recitations are often lead by teaching assistants (TAs) or graduate assistants (GAs) to supplement a lecture. TAs/GAs review the lecture, expand on the concepts, and usually allow for question/answer time.
Research (RSC)	Under the supervision of a faculty member or group of faculty, student conducts research that is expected to lead to a specific project such as dissertation, thesis, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.
Seminar (SEM)	A small class emphasizing discussion, presentations by students, and written research papers.
Studio (STO)	A hands-on workshop component of design and the arts courses.
Thesis (THE)	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.
Discussion (DIS)	Discussions are small interactional meetings that combine formal presentations, review, and interaction between the students and an instructor. They are usually combined with a lecture as the primary component.

Grading Option	Description
AUD	Audit
CNV	Conversion
ELG	Enhanced Learning Grading Basis
GNA	Graded with No Audit
LAW	Law Numeric
OP4	Student Option – P/F/Z or Audit
OP5	Student Option – Honors/High Honors or Audit
OP6	Student Option – Standard Grading or Audit
OPT	Student Option – Standard Grading or Audit
P/F	Pass/Fail
YGB	Y (Satisfactory) Grading Basis
Z1	Standard Grading with Z Option
Z2	Pass/Fail with Z Option
Z3	Continuing registration

Subject Description

AAD	Architectural Administration and Management
ABS	Applied Biological Sciences
ACC	Accountancy
ACO	Applied Computing
ADE	Architectural Design and Technology Studios
AEC	American English and Culture Program
AEP	Applied Ethics and the Professions
AES	Aerospace Studies
AET	Aeronautical Engineering Technology
AFH	African and African American Studies Humanities
AFR	African and African American Studies
AFS	African & African American Studies Social Science
AGB	Agribusiness
AIS	American Indian Studies
ALA	Architecture and Landscape Architecture
ALD	Aging and Lifespan Development
ALT	Alternative Energy Technologies
AME	Arts, Media, and Engineering
AML	Applied Mathematics for the Life & Social Sciences
AMS	American Studies
AMT	Aeronautical Management Technology
ANP	Environmental Analysis and Programming
APA	Asian Pacific American Studies
APH	Architectural Philosophy and History
APL	Applied Linguistics
APM	Applied Mathematics
ARA	Art Auxiliary
ARB	Arabic
ARD	Art
ARE	Art Education
ARP	Architecture Professional Studies
ARS	Art History
ART	Art
AS	BUSINESS LAW
ASB	Anthropology (Social and Behavioral)
ASC	Applied Science Core
ASE	Analysis and Systems
ASM	Anthropology (Science and Mathematics)
AST	Astronomy
ASU	ASU
ATC	Air Traffic Control
ATE	Architecture and Landscape Architecture
AVC	Architectural Communication
BCH	Biochemistry
BCS	Serbo-Croatian
BDE	Biological Design
BE	Business Education

BIO	Biology
BIS	Bachelor of Interdisciplinary Studies
BLE	Bilingual Education
BME	Bioengineering
BMI	Biomedical Informatics
BUA	Business Administration
BUE	Business Education
BUS	Business
CBS	Computational Biosciences
CCS	Chicana and Chicano Studies
CDE	Child Development
CED	Counselor Education
CEE	Civil and Environmental Engineering
CET	Computer Engineering Technology
CFA	Herberger College of the Arts
CHE	Chemical Engineering
CHI	Chinese
CHM	Chemistry
CHP	Community Health Practice
CIM	Concrete Industry Management
CIS	Computer Information Systems
CLS	Clinical Laboratory Sciences/Medical Technology
CMA	Communication
CMN	Communication Studies
COE	College of Education
COM	Communication
CON	Construction
CPI	Computing & Informatics
CPP	College of Public Programs
CPY	Counseling Psychology
CRD	Community Resources and Development
CRJ	Criminology and Criminal Justice
CSE	Computer Science and Engineering
CSS	Chicana and Chicano Studies Social Science
CST	Computing Studies
DAH	Dance History
DAN	Dance
DCE	Dance
DCI	Curriculum and Instruction
DNC	Dance
DNP	Doctor of Nursing Practice
DSC	Design
EAC	Early Childhood East
ECD	Early Childhood Education
ECE	Engineering Core
ECN	Economics
ECT	Early Childhood Teaching and Leadership
EDA	Education Administration and Supervision

EDB	Elementary Education Program
EDC	Education (Polytechnic Programs)
EDP	Educational Psychology
EDT	Educational Technology
EED	Elementary Education
EEE	Electrical Engineering
EET	Electronics Engineering Technology
EGR	Engineering
ELL	English as a Second Language
ELS	Environmental Life Sciences
ENE	Engineering Education
ENG	English
ENH	English/Humanities
EPA	Education Policy Analysis
EPD	Environmental Design and Planning
ESS	Environmental Social Science
EST	Electronic Systems Technology
ETH	Ethnic Studies
ETM	Environmental Technology Management
EXW	Exercise and Wellness
FAS	Family Studies
FIN	Finance
FLA	Foreign Languages
FMP	Film and Media Production
FMS	Film and Media Studies
FRE	French
FSA	Fire Service Administration
FSE	Fulton School of Engineering
FSM	Fire Service Management
GB	Business Law
GCU	Cultural Geography
GER	German
GIT	Graphic Information Technology
GLB	Global Business
GLG	Geological Sciences
GPH	Physical Geography
GRA	Graphic Design
GRD	Graduate Education
GRK	Ancient Greek
GTD	Global Technology and Development
HCR	Health Care Related
HEB	Hebrew
HED	Higher and Postsecondary Education
HES	Health Science
HHE	Healthcare and Healing Environments
HHS	Human Health Studies
HIN	Hindi Studies
HIS	History

HON	Honors
HPS	History and Philosophy of Science
HSD	Human and Social Dimensions Science and Technology
HSM	Health Sector Management
HST	History
HTY	History
HUD	Housing and Urban Development
HUM	Humanities
IA	Integrative Studies
IAP	Interdisciplinary Arts and Performance
IAS	Integrative Studies
IBC	Integrated Behavioral Care
IBS	International Business Studies
IDN	Indonesian
IED	Indian Education
IEE	Industrial Engineering
IMD	Instructional Media
IND	Industrial Design
INT	Interior Design
IPO	International Programs Overseas
ITA	Italian
JAC	Joint Admission Continuous Enrollment
JHR	Social Justice and Human Rights
JMC	Journalism and Mass Communication
JPN	Japanese
JUS	Justice Studies
KE	Kinetics Engineering
KIN	Kinesiology
KOR	Korean
LAA	Landscape Architectural Administration
LAP	Landscape Architecture Professional Studies
LAT	Latin
LAW	Law
LDE	Landscape Architectural Design&Technology Studies
LES	Legal and Ethical Studies
LIA	Liberal Arts and Sciences
LIM	Leadership in International Management
LIN	Linguistics
LIS	Library Science
LNP	Landscape Analysis and Programming
LPH	Landscape Architectural Philosophy and History
LSC	Life Sciences
LTC	Landscape Architectural Technology
LWU	Law (Undergraduate)
MA	Mathematics
MAE	Mechanical and Aerospace Engineering
MAK	Macedonian
MAS	Masters of Arts in Interdisciplinary Studies

MAT	Mathematics
MBB	Molecular Biosciences/Biotechnology
MCB	Molecular and Cellular Biology
MCE	Multicultural Education
MCN	Mass Communication
MCO	Mass Communication
MET	Mechanical & Manufacturing Engineering Technology
MGT	Management
MHI	Master of Healthcare Innovation
MHL	Music History/Literature
MIC	Microbiology
MIS	Military Science
MKT	Marketing
MLS	Master of Liberal Studies
MSC	Music
MSE	Materials Science and Engineering
MTC	Music Theory and Composition
MTE	Mathematics Education
MU	MUSIC
MUE	Music Education
MUP	Music Performance
MUS	Music
NAN	Nanoscience
NLM	Nonprofit Leadership and Management
NTR	Nutrition
NUR	Nursing
OMT	Operations Management Technology
OPM	Operations and Production Management
PAF	Public Affairs
PGM	Professional Golf Management
PGS	Psychology (Social and Behavioral)
PGV	Public Policy and Government
PHI	Philosophy
PHL	Philosophy
PHS	Physical Sciences
PHY	Physics
PLA	Landscape Architecture
PLB	Plant Biology
PLC	Polish Languages and Culture
PLS	Political Science
POL	Political Science
POR	Portuguese
POS	Political Science
PPE	Physical Education East
PRM	Parks and Recreation Management
PSY	Psychology
PUB	Scholarly Publishing
PUP	Urban and Environmental Planning

QBA	Quantitative Business Analysis
RDG	Reading Education
REA	Real Estate
REC	Recreation Management and Tourism
RED	Real Estate Development
REL	Religious Studies
ROM	Romanian
RTM	Recreation and Tourism Management
RUS	Russian
SAS	School of Applied Arts and Sciences
SBS	Social and Behavioral Sciences
SCM	Supply Chain Management
SCN	Science Education
SDE	Secondary Education East
SED	Secondary Education
SEM	Science and Engineering of Materials
SES	Earth and Space Exploration
SET	Security Engineering Technology
SGS	School of Global Studies
SHS	Speech and Hearing Science
SLC	School of International Letters and Cultures
SLV	Slavic
SOC	Sociology
SOS	School of Sustainability
SPA	Spanish
SPC	Special Education East
SPE	Special Education
SPF	Social and Philosophical Foundations
SSH	Social Science and Health
STP	Statistics and Probability
STS	Science, Technology, and Society
SWG	Social Work (Graduate)
SWU	Social Work (Undergraduate)
TA	Aeronautical Mngmnt Technology
TCL	Transborder Chicana/o and Latina
TDM	Tourism Development and Management
TEL	Teacher Education and Leadership
THA	Thai
THE	Theatre
THP	Theatre Performance and Production
THR	Theatre
TMC	Technology Management Core
TRC	Transportation Systems Certificate - SUBJECT HOLD
TWC	Multimedia Writing and Technical Communication
UET	Microelectronics Engineering Technology
UNI	University
URB	Urban and Metropolitan Studies
USL	University Service Learning

VTN	Vietnamese
WAC	Writing Across the Curriculum
WPC	W.P. Carey School of Business
WSH	Women's Studies Humanities
WST	Women's Studies
XBA	Business Cohort Management
XEE	Extended Education Cohort Management
YDL	Youth Development Leadership

Summer 2009

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AAD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AAD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AAD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AAD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AAD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
AAD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AAD	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AAD	551	Architectural Management I	Design delivery, coordination of construction documents, cost estimating, bidding and negotiations, construction observation, and postconstruction services.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Bldg Des(Facilities Dev/Mgt) Graduate Architecture student
AAD	552	Architectural Management II	Organizational, human performance, and market influences on architecture firms and projects. Readings, case studies, and analysis of managerial problems and solutions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Bldg Des(Facilities Dev/Mgt) or Graduate Architecture student
AAD	555	Architect as Developer	Development building, real estate, construction funding, land acquisition, and the sources for capital.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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AAD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ABS	130	Introduction to Environmental Science	Introduces soil resources, their physical and chemical properties, classification, energy dynamics, and the role they play in environmental quality.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
ABS	207	Applied Plant Taxonomy	Introduces identification of vascular plants emphasizing seed plants. Surveys seed plant families. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	225	Soils	Fundamental properties of soils and their relations to plant growth, nutrition of man and animals, and environmental quality. Both ABS 225 and ABS 226 must be taken to secure General Studies SQ credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
ABS	226	Soils Laboratory	Selected exercises to broaden the background and understanding of basic soil principles. Both ABS 225 and ABS 226 must be taken to secure General Studies SQ credit.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
ABS	260	Fundamentals of Urban Horticulture	Principles and practices of horticulture, emphasizing development, growth, and propagation of horticultural plants and environmental factors that affect these processes. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
ABS	270	Sustainable Biological Systems	Ecological foundations of sustainable biological systems, anthropogenic impacts on ecosystem structure and function, and ecological risk assessment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	274	Introduction to Wildlife Management	Managing wildlife in the Southwest, including life histories of small game, fur bearers, big game, and selected nongame specials. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	301	Technology and Biology	Demonstrations of a broad range of innovative technologies in molecular biology, cellular and organismal biology, horticulture, and wildlife and restoration ecology. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	302	Ethical and Policy Issues in Biology	Policy environment and ethics in the practice of biology. Covers ethical reasoning, policy formulation, and regulatory agencies with examples from biotechnology and the environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	311	Applied Cellular Biology	Overview of the biology of the cell; emphasizes structure and function of biomolecules within the cell.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	312	Structure and Function	Surveys structural and functional attributes of plant and animals of particular importance in the applied biological sciences. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	350	Applied Statistics	Statistical methods with applications in the biological sciences and natural resource management. Uses computers and the Internet.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
ABS	355	Vertebrate Zoology	Classification, anatomy, and physiology of the vertebrates.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	360	Southwest Home Gardening	Multimedia course for nonmajors surveying contemporary topics in Southwest home horticulture, including landscaping, flower and vegetable gardening, citiculture, interiorscaping, and others.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	362	Landscape Plants and Design	Identification, design, and use of plants in urban landscapes. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	363	Landscape and Turf Irrigation	Design, management, and maintenance of landscape and turf irrigation systems. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	364	Urban Forestry	Care, maintenance, and valuation of the urban forest, including public and private landscape codes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	367	Urban Parks	Overview of the management and maintenance of private and public parks, urban greenspaces, and recreational areas. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	368	Plant Propagation	Theory and application of sexual and asexual propagation techniques. Considers plant materials used both for urban horticulture and ecological restoration applications. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	370	Ecology	Interactions between organisms and their environments; structure and dynamics of populations, communities, ecosystems, and landscapes, with emphasis on vegetation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	372	Ecology: Ecosystems and Landscapes	Structure and function of ecosystems, interactions of pattern and process in landscapes	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	375	Conservation Biology	Principles of conservation biology, management of threatened species and ecosystems, biodiversity patterns; emphasizes issues in the Southwest. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		

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ABS	376	Wildlife Ecology	Examines ecological principles underlying wildlife population dynamics with emphasis on physiology, genetics, nutrition, and habitat factors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	378	Wildlife Nutrition	Principles of nutrient metabolism in wildlife species; emphasizes understanding the interaction of wildlife with their environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	380	Restoration and Wildlife Plants	Important wildland plants, including invasive and endangered species, wildlife food species, and species used for ecosystem restoration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	381	Natural Resources Policy	Policies and regulations affecting management of natural resources, with emphases on wildlife and ecological restoration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	401	Intermediate Statistics	Analysis of variance, multiple comparisons, multiple regression.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	402	Vegetation and Wildlife Measurement	Vegetation inventory, sampling, monitoring, and evaluation. Methods of estimating wildlife populations, activity, and home ranges.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	425	Soil Classification and Management	Principles of soil genesis, morphology, and classification. Presents management and conservation practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	430	Watershed Management	Hydrologic, physical, biological, and ecological principles applied to watershed management. Impact of ecosystem manipulations on water yield and quality.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	433	Riparian and Wetland Ecology	Functions and components of riparian and wetland ecosystems and the management of these systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	434	Soil Ecology	Soils viewed in an ecosystem context, soil-plant relationships, nutrient budgets, and abiotic factors that influence soil processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	435	Applied Systems Ecology	Simulation modeling as a tool to study ecological processes and human impact on ecosystems and organisms.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	440	Ecological Restoration Techniques	Techniques for ecological restoration, riparian and wetland restoration, and monitoring restoration success.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	441	Ecological Restoration Practicum	Field experience in the evaluation and monitoring of implemented ecological restoration projects. fee	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ABS	460	Organic Gardening	Applies principles and practices of organic gardening in the low desert, including environmental impacts of modern food production. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	462	Greenhouse/Nursery Management	Greenhouse structures, environment, and nursery operations. Includes irrigation, nutrition, and other principles relative to production of nursery crops. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	463	Golf and Sports Turf Management	Selection, establishment, and maintenance of turf grasses bred specifically for golf and sports facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	465	Senior Enterprise Project	Selection and completion of an urban horticulture project with faculty advisor approval related to the field of study.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	470	Mammalogy	Classification and biology of mammals, emphasizes North America.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	471	Ornithology	Classification and biology of birds, emphasizing North America. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	475	Habitat Management for Small Wildlife	Habitat management considerations and practices for small game and nongame wildlife species in North America. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	476	Big Game Habitat Management	Habitat management considerations and practices for big game wildlife species in North America. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	480	Ecosystem Management and Planning	Principles of ecosystem management, with emphasis on economic and policy constraints on the planning process. Risk assessment and management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	L	
ABS	481	Riparian and Wetland Restoration	Principles and problems in the restoration of degraded riparian and wetland ecosystems. Construction of wetlands.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	482	Ecology and Planning for Restoration	Ecological principles and resource planning processes applied to the restoration of degraded landscapes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	483	Restoration Planning Practicum	Field experience in ecological restoration techniques, selection of mitigation techniques, and implementation planning. Fee.	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	485	GIS in Natural Resources	Principles of Geographic Information Systems (GIS) utilized in natural resource management. Use of computers for spatial analysis of natural resources.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	486	Introduction to Remote Sensing	Remote sensing technologies in natural resource management using computerized data from aerial photography and satellite imagery. Not for graduate credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ABS	489	Undergraduate Research	Undergraduate research under the supervision of an applied biological sciences faculty member.	N	RSC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ABS	490	Applied Biological Sciences Seminar	Current literature and significant developments related to applications of the biological sciences. May be repeated for credit.	N	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ABS	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-6		
ABS	493	Honors Thesis		N	THE	N	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-6	L	Pre-requisites: Must be an Honors student
ABS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-7		
ABS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ABS	540	Plant Responses to Environmental Stresses	Reaction of plants to environmental stresses: aerial pollutants, fire, herbivores, floods, mechanical treatments, pesticides, and soil amendments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	550	Vegetation Dynamics	Dynamics of vegetation linking physiological, population, and community ecology. Collection and analysis of vegetation data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	551	Advanced Environmental Analysis	Advanced statistical procedures and experimental design for the biological sciences. Techniques for analyzing data that do not meet statistical assumptions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	553	Riparian Ecology	Review of recent literature, developments, and methods related to riparian ecology. Applies soil and landscape ecology to riparian systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	560	Dynamic Spatial Modeling	Simulation modeling of landscapes, animal populations, and ecological processes in space and time. May use modeling tools on computer clusters.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	570	Advanced Animal Nutrition	Metabolic and physiological interactions of nutrients in wild and domesticated animals consuming natural feeds.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	586	Remote Sensing in Environmental Resources	Principles and application of remote sensing technologies in natural resource management using computerized data from aerial photography and satellite imagery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ACC	231	Uses of Accounting Information I	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Not open to Pre-BIS or Interdisciplinary Studies students; CIS 105, 220 or 236 with C or better
ACC	241	Uses of Accounting Information II	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: ACC 231, ACC 261 or ACC 303 with C or better

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ACC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-3		
ACC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	231	Uses of Accounting Information I	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Not open to Pre-BIS or Interdisciplinary Studies students; CIS 105, 220 or 236 with C or better
ACC	241	Uses of Accounting Information II	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: ACC 231, ACC 261 or ACC 303 with C or better
ACC	261	Honors Fundamentals of Financial Accounting	Covers basic financial accounting concepts and applications. Develops an understanding of the environment in which financial reporting choices are made.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Must be an Honors student; Must have completed CIS 105 or CIS 220 with a grade of C or greater or be currently enrolled
ACC	271	Honors Fundamentals of Managerial Accounting	Covers basic managerial accounting concepts and applications.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Must be an Honors student; Must have completed ACC 231, ACC 261 or ACC 303 with a grade of C or greater
ACC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	315	Financial Accounting and Reporting	Accounting theory and practice related to uses of financial statements by external decision makers.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey BS or BA student (not open to Accountancy students); or non-bus student with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and 56 earned hrs; ACC 231 and ACC 241 with C or better
ACC	316	Mgmt Uses of Accounting	Uses of accounting information for managerial decision making, budgeting, and control.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey BS or BA student (not open to Accountancy students); or non-bus student with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and 56 earned hrs; ACC 241 with C or better
ACC	326	External Financial Reporting I	Theory, U.S. standards, and practice applicable to financial statements, revenue recognition, and assets.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student OR be pursuing an Accountancy or Prof Accountancy certificate
ACC	327	External Financial Reporting II	Theory, U.S. standards, and practice applicable to equities, cash flow statement, earnings per share, leases, pensions, and other essential topics.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: School of Global Management and Leadership Accountancy student; ACC 326 with C or better
ACC	336	Cost Management and Control	Concepts and principles for product costing, planning and control, and internal decision making.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate
ACC	340	External Reporting I	Financial accounting theory and practice related to external reporting.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 241, and ECN 221 with a grade of C or better. Pre- or co-requisite: FIN 300.
ACC	346	Information Systems Management	Information requirements and transaction processing for integrated accounting systems emphasizing database systems analysis and design, controls, and computer processing.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS or a Global Management student with Professional status
ACC	350	Internal Reporting	Internal reporting systems for planning, control, and decision making.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 241, and ECN 221 with a grade of C or better.
ACC	356	Income Tax Accounting	Public policy concepts and rules of federal income tax for all taxpayers. Individual tax returns and use of tax software.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate AND ACC 326 with C or better
ACC	361	Accounting Technology	Use and understanding of a computerized accounting package and other software for accounting applications.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate AND ACC 326 and 336 and 346 with C or better
ACC	361	Accounting Technology	Use and understanding of a computerized accounting package and other software for accounting applications.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		
ACC	382	Accounting and Financial Analysis	Introduces nonbusiness majors to financial accounting concepts related to operating, financing, investing, and ethical decisions.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Non-Accountancy student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
ACC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	410	Contemporary Financial Reporting	Topics include financial statements, roles and effects of accounting information in society, policy setting, managers' choice of accounting techniques. Cannot be used for major credit in Accountancy.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Business/Financial Mgt BS student AND have completed with a C or better FIN 300 or 301 or be currently enrolled or not be pursuing an Accountancy or Professional Accountancy certificate
ACC	426	Advanced Reporting: Consolidation, International, and Not-for-Profit Topics	Consolidated financial statements, not-for-profit accounting, and international accounting standards and topics including foreign currency transactions and translation.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326.
ACC	430	Taxes and Business Decisions	Federal income taxation of sole proprietors, partnerships, corporations, fiduciaries, and individuals with an emphasis on tax consequences of business and investment decisions.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 340 and LES 305 with C or better
ACC	436	Advanced Topics in Cost Management	Issues in contemporary manufacturing environments. Topics include cost estimation, activity-based management, just-in-time inventories, budgeting, and variances.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326, 331 or 336 or be currently enrolled
ACC	440	External Reporting II	Continuation of ACC 340 with emphasis on the recognition, research, and resolution of financial reporting issues.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; must have completed ACC 340 with a grade of C or greater or be currently enrolled

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ACC	444	Enterprise Process Analysis and Design	Analysis and design of efficient and effective business processes. Emphasizes taking advantage of new information technologies to improve managerial decision making. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Computer Info Systems BS student; ACC 241 and ECN 221 with a grade of C or better.
ACC	450	Principles of Auditing	Standards and procedures in auditing. Planning, evidence gathering and accumulation, and reporting. Ethical and legal considerations. fee	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 440 and 444 with C or better
ACC	456	Advanced Taxation	Advanced problems in business and fiduciary income tax. Formation, operation, and liquidation of corporation and partnerships. Use of research software.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must have completed ACC 351 or 356 AND ACC 326 with a grade of C or better
ACC	476	External Auditing	Theory and standards underlying the attestation process. Topics include evidence gathering, analysis, reporting, and development of professional judgement skills.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student OR Accountancy or Professional Accountancy Certificate; ACC 322 or 327 with C or better; ACC 346 or 347 with C or better
ACC	477	Internal Auditing	Contemporary issues and practices of internal auditing. Standards and process of management/operation audits.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326 or ACC 346 or 347.
ACC	478	Governmental and Not-for-Profit Accounting	Accounting and reporting systems for governmental entities, healthcare organizations, colleges and universities, and other nonprofit organizations.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 321 or 326 or be currently enrolled
ACC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	School of Accountancy	1-6		
ACC	493	Honors Thesis		N	THE	N	Z1	W.P. Carey School of Business	School of Accountancy	1-6	L	Pre-requisites: Must be an Honors student
ACC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Accountancy BS student
ACC	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-6		
ACC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-7		Pre-requisite: Accountancy BS, Finance BS or Economics BS student
ACC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-3		Pre-requisite: Accountancy BS student
ACC	502	Financial Accounting	Contemporary financial accounting and reporting systems; emphasizes the interpretation and evaluation of a company's external financial reports.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	2-4		Pre-requisite: MBA student
ACC	503	Managerial Accounting	Managerial accounting concepts and procedures for internal reporting applied to the decision making activities of the professional managers.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	2-4		Pre-requisite: MBA student
ACC	511	Taxes and Business Strategy	Economic implications of selected management decisions involving application of federal income tax laws. Recognition of tax hazards and tax savings.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	525	Accounting Theory	Examines GAAP and the broader implications of financial accounting in a market economy while balancing the varied interests of diverse stakeholders.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: must be in the Accountancy & Appl Leadership graduate plan.
ACC	529	Fraud Accounting	Surveys a variety of topics, including types of fraud, the prevention and detection of fraud, and fraud investigations.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	536	Advanced Topics in Cost Management	Emphasizes cost management topics for manufacturing, merchandising, and service industries while adopting the perspective of the user of cost management information.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	561	Auditing Through the Computer	Presents general IT audit concepts, terms, standards, practices, and current tools and techniques.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	567	Financial Models in Accounting Systems	Development and application of financial models by accountants. Analysis of decision support systems as financial modeling environments.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisites: Specific Business Graduate students only
ACC	571	Taxation of Corporations and Shareholders	Tax aspects of the formation, operation, reorganization, and liquidation of corporations and the impact on shareholders.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	573	Taxation of Pass-Through Entities	Tax aspects of the definition, formation, operation, liquidation, and termination of a partnership. Emphasizes tax planning.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	575	Family Tax Planning and Wealth Transfer Taxation	Tax treatment of wealth transfers at death and during lifetime, with emphasis on tax planning.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	577	Internal Auditing	Examines the vocabulary, concepts, logic, principles, processes, and techniques of auditing.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: must be in the Accountancy & Appl Leadership graduate plan.
ACC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	582	Information Security of Interorganizational Systems	Function and responsibility of the information security officer. Advanced topics in security methods and technology.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		

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ACC	585	Performance Measurement and Advanced Managerial Accounting	Applies quantitative techniques to accounting problems.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Business Graduate student
ACC	586	Shareholder Value Creation and Financial Statement Analysis	Develops skills necessary to exploit financial reporting information in a business environment and appreciation of reporting issues faced by management.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisites: Specific Graduate Business students only
ACC	588	Professional Accounting Research	Applies the technical knowledge of accounting theory and principles developed in other academic courses through the use of "real life" case studies, where such knowledge and professional judgment is applied in resolving advanced accounting problems and issues.	N	RSC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: W. P. Carey Master of Accountancy student
ACC	589	Multijurisdictional Tax II	Addresses the U.S. taxation of U.S. individuals and businesses that do business outside the U.S. as well as the U.S. taxation of foreign persons and tax treaties, allocation of income, foreign tax credits, and transfer pricing. Emphasizes planning related to some of the tax issues that commonly arise in cross-border businesses.	N	RSC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: W. P. Carey Master of Taxation student
ACC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Specific Business Graduate majors
ACC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Specific Business Graduate majors
ACC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	596	Accounting and Leadership Capstone Project	Case-based course dealing with the pragmatics of managing risk in a variety of business settings, including public accounting, consulting, and industry.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		

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ACC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Business Administration (Accountancy) PHD student
ACC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-15		
ACC	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	School of Accountancy	1-15		
ACO	100	Overview of Applied Computing	Internet and HTML, XML, databases, networks and distributed processing, digital media and graphic design. Opportunities, professionalism, and ethics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
ACO	101	Introduction to Computer Science	Concepts of problem solving, structured and object-oriented programming in Java, fundamental algorithms, computer system concepts. Social and ethical responsibilities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: MAT117 or higher with C or better
ACO	102	Principles of Computer Science	Issues and concepts throughout computer science, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Java programming. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: ACO 101 with C or better
ACO	201	Data Structures and Algorithms	Static and dynamic data structures, recursive and iterative sorting and searching, object-oriented design and programming, software design models and implementation/testing strategies, professional responsibilities. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: ACO 102 and MAT 210 with C or better
ACO	210	Introduction to Systems Programming	Introduces operating systems as resource managers, processes, threads, memory allocation, file systems, protection, system calls, application program interfaces. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: ACO 201 with C or better
ACO	220	Introduction to Database Systems	Introduces database management systems concepts. Entity-relationship and relational data models. Database design. Relational algebra, calculus, and SQL query languages. Query optimization. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: ACO 201 and MAT 243 with C or better
ACO	320	Database Systems and Transaction Processing	Relational database normalization theory, stored procedures, triggers, and call-level interface. Data-centric XML. Transaction processing in centralized and distributed databases. Security. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 220 with C or better
ACO	330	Computer Networks	Network architecture and protocols, flow and congestion control, switching and routing, link-layer technologies, medium access control, physical layer basics, quality-of-service, security. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 102 with C or better
ACO	331	Network Design	Fundamental network design principles, internetworking design, network architectures, network management, traffic analysis, security management, case study and hands-on experiments. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 330 with C or better
ACO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	420	Object Databases	Object-oriented conceptual modeling, object-oriented databases, object-relational databases, applications. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	421	Data Mining and Warehousing	Introduces data mining from a database perspective, including classification, clustering, and association rules. Data warehousing methodologies. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	422	XML and Databases	XML data model, schema specification and validation, querying, storage, indexing, and current research topics. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	430	Wireless Networks	Wireless transmission fundamentals, multiple access techniques, error detection and control, cellular concepts and systems, wireless LAN, performance analysis, recent advances. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210, ACO 330 and STP 300 with C or better
ACO	431	Network Security	Digital threats and attacks, cryptography, confidentiality, authentication protocols, message integrity, security in network applications, intrusion detection, malicious software countermeasures, firewalls. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210, ACO 330 and MAT 243 with C or better
ACO	432	Distributed Systems	Distributed system models, distributed programming technique, clock synchronization, distributed snapshot, distributed mutual exclusion, concurrency control, fault tolerance, security, recent advances. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210 and ACO 330 with C or better
ACO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ACO	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6	L	Pre-requisites: Must be an Honors student
ACO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-7		
ACO	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
ADE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ADE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	321	Architectural Studio I	Introductory building design problems. Emphasizes design process, communication methods, aesthetics, construction, and technology. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be Architectural Studies student
ADE	322	Architectural Studio II	Site and building design problems. Emphasizes programmatic and environmental determinants and building in natural and urban contexts. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must have completed ADE 321 with a grade of C or better or be currently enrolled; must be an Architectural Studies student
ADE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	421	Architectural Studio III	Topical design problems of intermediate complexity, including interdisciplinary problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be also enrolling in ANP 431 and ARP 484; must have completed ADE 322 with a grade of C or greater or be currently enrolled; must be an Architectural Studies student
ADE	422	Architectural Studio IV	Topical design problems of advanced complexity, including interdisciplinary problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be an Architectural Studies student; Must have completed ADE 421 with a grade of C or greater or be currently enrolled; Must have completed ARP 484 with a grade of Y or be currently enrolled
ADE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ADE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ADE	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
ADE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ADE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ADE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

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ADE	510	Foundation Architectural Studio	Fundamentals of architectural design, methodology, visualization, and representation. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		
ADE	511	Core Architectural Studio I	Applies design fundamentals in architectural problems, including construction, technology, programmatic and environmental determinants. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Must be Master of Architecture student; must have completed ADE 510 with a grade of C or greater or be currently enrolled
ADE	512	Core Architectural Studio II	Applies architectural design fundamentals to increasingly complex problems, including specific sites and activities. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Must be Master of Architecture student; must have completed ADE 511 with a grade of C or greater or be currently enrolled
ADE	521	Advanced Architectural Studio I	Design problems emphasizing theory, aesthetics, and tectonics as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be Master of Architecture student; Co-requisites: ATE 553 and ATE 563
ADE	522	Advanced Architectural Studio II	Design problems emphasizing the comprehensive integration of building systems and technologies as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be Master of Architecture student; Must have completed ADE 521 with a grade of C or greater or be currently enrolled; Co-requisites: APH 505 and ATE 556
ADE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	621	Advanced Architectural Studio III	Design problems emphasizing the urban context, planning issues, and urban design theory as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be Master of Architecture student; must have completed ADE 522 with a grade of C or greater; Co-requisite: APH 515 OR Must be Bldg Des(Energy Perform/Bldgs) MS student
ADE	622	Advanced Architectural Studio IV	Individual, student-initiated project reflecting a culminating synthesis of architectural ideas. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be Master of Architecture student; Must have completed ADE 621 with a grade of C or greater or be currently enrolled; Co-requisite: AAD 552
ADE	661	Bioclimatic Design Studio	Sustainable architectural and site synthesis at a variety of scales emphasizing bioclimatic criteria and the use of passive and low-energy systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must either be Master of Architecture or Bldg Des(Energy Perform/Bldgs) MS student
ADE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ADE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AEC	10-D	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	10-M	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	10-M	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-D	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-M	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-M	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23-D	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23-M	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	30	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31-D	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31-M	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	41-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	41-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	42	Basic 1 Grammar		N	LEC	N	GNA	EE - CONV	Arizona State University	0.		
AEC	42	Basic 1 Grammar		N	LEC	N	GNA	EE - CONV	Arizona State University	0.		
AEC	50-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	50-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	51-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	51-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	60-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	60-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	61-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	61-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate Toefl		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate Toefl		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business Across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business Across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	70-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	70-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	71-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	71-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	72-D	Intermediate 2 Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	72-M	Intermediate 2 Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	75	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	75-D	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	75-M	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76-D	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76-M	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	77	Idioms		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	77-D	Idioms		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	77-M	Idioms		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	80-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	80-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	81-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	81-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82-D	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82-M	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	83	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	83-D	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	83-M	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	84	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	84-D	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	84-M	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	90-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	90-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	91-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	91-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	20	Listening/Speaking		N	LEC	N	AUD	University College	NC American English and Culture Program	0.		
AEC	20-D	Listening/Speaking		N	LEC	N	AUD	University College	NC American English and Culture Program	0.		
AEC	20-M	Listening/Speaking		N	LEC	N	AUD	University College	NC American English and Culture Program	0.		
AEC	22	Special Programs Training		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	22	Special Programs Training		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	24	Special Programs Field-Based Learning		N	LEC	N	OPT	University College	NC American English and Culture Program	3.		
AEC	24	Special Programs Field-Based Learning		N	LEC	N	OPT	University College	NC American English and Culture Program	3.		
AEC	25	Special Programs English for Specific Purposes		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	25	Special Programs English for Specific Purposes		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	26	Special Programs Project Work		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	26	Special Programs Project Work		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	27	Special Programs Current Issues and Topics		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	27	Special Programs Current Issues and Topics		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	28	Special Programs Survival English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	28	Special Programs Survival English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	32	Evening English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	32	Evening English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	33	Evening English ST: Language Test Preparation		Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	33	Evening English ST: Language Test Preparation		Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	34	Evening English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	34	Evening English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	35	Weekend English ST: Business English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	35	Weekend English ST: Business English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	36	Weekend English ST: Academic English		N	LEC	Y	GNA	University College	NC American English and Culture Program	3-9		
AEC	36	Weekend English ST: Academic English		N	LEC	Y	GNA	University College	NC American English and Culture Program	3-9		
AEC	37	Weekend English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	37	Weekend English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	38	Weekend English ST: Language Test Preparation		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	38	Weekend English ST: Language Test Preparation		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	39	Weekend English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	39	Weekend English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	40	Basic 1 Listening/Speaking	On completing the Basic 1 Listening/Speaking course, a student will be able to (1) follow directions and comprehend main ideas and supporting details of short, simple passages and conversations spoken slowly; and (2) speak informally to express basic needs, habits and descriptions in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	41	Basic 1 Reading/Writing	On completing the Basic 1 Reading/Writing course, a student will be able to (1) recognize main ideas and find supporting details in selected reading passages of a few pages; and (2) produce a guided writing with a personal point of view, demonstrating level-appropriate control of grammar, word forms, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	41	Basic 1 Reading/Writing	On completing the Basic 1 Reading/Writing course, a student will be able to (1) recognize main ideas and find supporting details in selected reading passages of a few pages; and (2) produce a guided writing with a personal point of view, demonstrating level-appropriate control of grammar, word forms, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	42	Basic 1 Grammar	This course covers helping verbs, pronouns, adjectives, count/non-count nouns, and tenses (present, present progressive and simple past).	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	42	Basic 1 Grammar	This course covers helping verbs, pronouns, adjectives, count/non-count nouns, and tenses (present, present progressive and simple past).	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	50	Basic 2 Listening/Speaking	On completing the Basic 2 Listening/Speaking course, a student will be able to follow instructions, directions, and comprehend the main ideas and supporting details of 1-3 minute announcements and conversations with controlled speech and delivery; and (2) speak informally in basic social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	50	Basic 2 Listening/Speaking	On completing the Basic 2 Listening/Speaking course, a student will be able to follow instructions, directions, and comprehend the main ideas and supporting details of 1-3 minute announcements and conversations with controlled speech and delivery; and (2) speak informally in basic social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	51	Basic 2 Reading/Writing	On completing the Basic 2 Reading/Writing course, a student will be able to (1) recognize main ideas, find supporting details, and recognize the organizational pattern in short and page-length reading passages; and (2) produce a composition, based on a model, with a personal point of view, demonstrating level-appropriate control of grammar, word form, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	51	Basic 2 Reading/Writing	On completing the Basic 2 Reading/Writing course, a student will be able to (1) recognize main ideas, find supporting details, and recognize the organizational pattern in short and page-length reading passages; and (2) produce a composition, based on a model, with a personal point of view, demonstrating level-appropriate control of grammar, word form, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	52	Basic 2 Grammar	Learn grammar for everyday writing and speaking ; present, progressive and future tenses, irregular verbs in the past tense, modal verbs, pronouns, order of adjectives, and comparisons.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	52	Basic 2 Grammar	Learn grammar for everyday writing and speaking ; present, progressive and future tenses, irregular verbs in the past tense, modal verbs, pronouns, order of adjectives, and comparisons.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	53	Basic Communication Special Topic	Learn to communicate effectively at the basic level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	53	Basic Communication Special Topic	Learn to communicate effectively at the basic level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	60	Intermediate 1 Listening/Speaking	On completing the Intermediate 1 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 1-5 minute listening passages, conversations, instructions, and directions with controlled speech and delivery; and (2) speak informally in common social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	60	Intermediate 1 Listening/Speaking	On completing the Intermediate 1 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 1-5 minute listening passages, conversations, instructions, and directions with controlled speech and delivery; and (2) speak informally in common social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	61	Intermediate 1 Reading/Writing	On completing the Intermediate 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and find supporting details in selected reading passages of a few pages; and (2) produce an organized composition, with a personal or an objective point of view, demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	61	Intermediate 1 Reading/Writing	On completing the Intermediate 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and find supporting details in selected reading passages of a few pages; and (2) produce an organized composition, with a personal or an objective point of view, demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

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AEC	62	Intermediate 1 Grammar	Improve grammar for everyday writing and conversation ; present perfect and present perfect continuous and future tenses, noun clauses, and grammar to cover frequency, duration, possibility, and necessity.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	62	Intermediate 1 Grammar	Improve grammar for everyday writing and conversation ; present perfect and present perfect continuous and future tenses, noun clauses, and grammar to cover frequency, duration, possibility, and necessity.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	70	Intermediate 2 Listening/Speaking	On completing the Intermediate 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 5-10 minute general topic listening passages with modified speech and delivery; and (2) speak formally and informally on a variety of general topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	70	Intermediate 2 Listening/Speaking	On completing the Intermediate 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 5-10 minute general topic listening passages with modified speech and delivery; and (2) speak formally and informally on a variety of general topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	71	Intermediate 2 Reading/Writing	On completing the Intermediate 2 Reading/Writing course, a student will be able to recognize the main ideas and supporting details and distinguish between fact and opinion in a reading passage of several pages; and (2) produce a composition, based on a writing task, with an objective point of view demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	71	Intermediate 2 Reading/Writing	On completing the Intermediate 2 Reading/Writing course, a student will be able to recognize the main ideas and supporting details and distinguish between fact and opinion in a reading passage of several pages; and (2) produce a composition, based on a writing task, with an objective point of view demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	72	Intermediate 2 Grammar	Focus on an overview of all the tenses. This course also covers passive voice and sequence of tenses with adverbial clauses.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	72	Intermediate 2 Grammar	Focus on an overview of all the tenses. This course also covers passive voice and sequence of tenses with adverbial clauses.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	73	Intermediate Communication Special Topic	Learn to communicate effectively at the intermediate level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	73	Intermediate Communication Special Topic	Learn to communicate effectively at the intermediate level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	80	Advanced 1 Listening/Speaking	On completing the Advanced 1 Listening/Speaking course, a student will be able comprehend the main ideas and supporting details of brief academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	80	Advanced 1 Listening/Speaking	On completing the Advanced 1 Listening/Speaking course, a student will be able comprehend the main ideas and supporting details of brief academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	81	Advanced 1 Reading/Writing	On completing the Advanced 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details and determine logical inferences in selected general reading passages of several pages; and (2) produce a composition, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

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AEC	81	Advanced 1 Reading/Writing	On completing the Advanced 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details and determine logical inferences in selected general reading passages of several pages; and (2) produce a composition, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	90	Advanced 2 Listening/Speaking	On completing the Advanced 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of complex but abbreviated academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	90	Advanced 2 Listening/Speaking	On completing the Advanced 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of complex but abbreviated academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	91	Advanced 2 Reading/Writing	On completing the Advanced 2 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details, and determine logical inferences in authentic and selected academic and general reading passages of several passages; and (2) produce a well-developed essay, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	91	Advanced 2 Reading/Writing	On completing the Advanced 2 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details, and determine logical inferences in authentic and selected academic and general reading passages of several passages; and (2) produce a well-developed essay, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	92	Advanced Grammar	This course covers complex sentence structure, participial phrases, reduced adjective clauses and appositives, infinitives and gerunds, hypothetical conditionals, and the subjunctive.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	92	Advanced Grammar	This course covers complex sentence structure, participial phrases, reduced adjective clauses and appositives, infinitives and gerunds, hypothetical conditionals, and the subjunctive.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	93	Advanced Communication Special Topic	Learn to communicate effectively at the advanced level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	93	Advanced Communication Special Topic	Learn to communicate effectively at the advanced level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	94	Business English Special Topic	Learn to communicate effectively in a variety of business situations and develop English skills necessary for success in today's business world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	94	Business English Special Topic	Learn to communicate effectively in a variety of business situations and develop English skills necessary for success in today's business world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	95	American Culture Studies Special Topic	Learn about American culture and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	95	American Culture Studies Special Topic	Learn about American culture and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	96	Academic English Studies Special Topic	Learn the Academic English necessary for success at an American university or college.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	96	Academic English Studies Special Topic	Learn the Academic English necessary for success at an American university or college.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	97	TOEFL Special Topic	Improve test-taking strategies for specific areas of the iBT (Internet-Based test) TOEFL and the Institutional (paper and pencil) TOEFL. This is an elective course that meets six hours per week. This course also includes FREE Institutional TOEFL Test while this form of the TOEFL is still available.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3-6		
AEC	97	TOEFL Special Topic	Improve test-taking strategies for specific areas of the iBT (Internet-Based test) TOEFL and the Institutional (paper and pencil) TOEFL. This is an elective course that meets six hours per week. This course also includes FREE Institutional TOEFL Test while this form of the TOEFL is still available.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3-6		

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AEC	X98	ESL Credit Course Special Topic	These courses are introductions to the university environment and to volunteerism in the community. A student will have opportunities to interact and to be exposed various aspects of American culture. These AECP elective courses can also be taken for 3 ASU credits which may be applied to a degree program.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X98	ESL Credit Course Special Topic	These courses are introductions to the university environment and to volunteerism in the community. A student will have opportunities to interact and to be exposed various aspects of American culture. These AECP elective courses can also be taken for 3 ASU credits which may be applied to a degree program.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X99	International Teaching Assistants Training	The ITA training Seminar is a no-fee course offered to international students who are candidates for a teaching assistantship. The seminar is a non-credit semester long course which addresses language improvement, teaching skills, and cross-cultural training.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X99	International Teaching Assistants Training	The ITA training Seminar is a no-fee course offered to international students who are candidates for a teaching assistantship. The seminar is a non-credit semester long course which addresses language improvement, teaching skills, and cross-cultural training.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AES	101	Air Force Today I	Introduces U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	102	Leadership Lab	Emphasizes common Air Force customs and courtesies, drill and ceremonies, health and physical fitness through group participation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	103	Air Force Today II	Continuation of AES 101. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	104	Leadership Lab	Continuation of AES 102 with more in-depth emphasis on learning the environment of an Air Force officer.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
AES	201	The Evolution of USAF Air and Space Power I	Further preparation of the AFROTC candidate. Topics include: Air Force heritage and leaders, communication skills, ethics, leadership, quality Air Force, and values.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	202	Leadership Lab	Application of advanced drill and ceremonies, issuing commands, knowing flag etiquette, and developing, directing, and evaluating skills to lead others.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	203	The Evolution of USAF Air and Space Power II	Continuation of AES 201. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	204	Leadership Lab	Continuation of AES 202 with emphasis on preparation for field training.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-4		
AES	301	Air Force Leadership Studies I	Study of communication skills, leadership and quality management fundamentals, leadership ethics, and professional knowledge required of an Air Force officer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	302	Leadership Lab	Advanced leadership experiences applying leadership and management principles to motivate and enhance the performance of other cadets.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	303	Air Force Leadership Studies II	Continuation of AES 301. Topics include: communication skills, ethics, leadership, professional knowledge, and quality management required of an Air Force officer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	304	Leadership Lab	Continuation of AES 302 with emphasis on planning the military activities of the cadet corps and applying advanced leadership methods.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	401	National Security Affairs	Examines advanced ethics, Air Force doctrine, national security process, and regional studies. Special topics include: civilian control of the military, military justice, and officership.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	402	Leadership Lab	Advanced leadership experience demonstrating learned skills in planning and controlling the military activities of the corps.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	403	Preparation for Active Duty II	Continuation of AES 401. Topics include: civilian control of the military, doctrine, ethics, military justice, the national security process, and officership.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.		
AES	404	Leadership Lab	Continuation of AES 402 with emphasis on preparation for transition from civilian to military life.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-7		

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AES	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	N	Z1	Liberal Arts and Sciences	Department of Aerospace Studies	1-3		
AES	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Aerospace Studies	1-12		
AET	191	First-Year Seminar		Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
AET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	210	Measurements and Testing	Measurement systems, components, system response, and the characteristics of experimental data.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 112 or PHY 131 with D or better
AET	215	Aircraft Systems	Principles and design features of aircraft structures, systems, and materials.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
AET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	300	Aircraft Design I	Applied aerodynamics, standard atmosphere, speed measurement, infinite and finite wings, airplane performance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: D or greater in AET215 and CON221or ECE210 or ETC211 or MET211
AET	310	Instrumentation	Measurement systems, components, system response, and the characteristics of experimental data. Methods of collecting and analyzing data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MAT 261, MAT 271 or MAT 274 with D or better; AET 210 or EET 208 with D or better
AET	312	Applied Engineering Mechanics: Dynamics	Masses; motion kinematics; dynamics of machinery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: APM 271, MAT 261 or MAT 271 with D or better; CON 221, ETC 211, ECE 210, MAE 212 or MET 211 with D or better
AET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	396	Aerospace Professional Orientation	Career focus for Aeronautical Engineering Technology students. Familiarization with the aerospace industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisite: Junior or higher academic level
AET	415	Gas Dynamics and Propulsion	Introduces compressible flow, internal and external flow, and aerothermodynamic analysis of propulsion systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MAE 371 or MET 434 with D or better OR Technology and Innovation or Fulton Engineering BS or non-degree graduate student with D or better in MAE 371 OR Technology and Innovation MS/MSTECH or Fulton Engineering MS/MSE/PHD students
AET	417	Aerospace Structures	Analysis and design of aircraft and aerospace structures. Shear flow. Semimonocoque structures. Effects of dynamic loading.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 313 (or ECE 313) with D or better; AET 312 (or ECE 312) with D or better; AET 300 with D or better OR College of Technology and Innovation MS or MSTECH or Fulton Engineering graduate students
AET	420	Experimental Aerodynamics and Wind Tunnels	Experimental applied aerodynamics related to aeronautical and mechanical design. Wind tunnel design and testing. Low speed flows.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: AET 300 with D or better; MET434 with D or better
AET	432	Applied Heat Transfer	Heat transfer by conduction, convection, and radiation. Applies heat transfer to engineering design problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
AET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Technology and Innovation BS student; Minimum cumulative GPA of 3.00; Minimum Junior standing
AET	487	Aircraft Design II	Basic aerodynamics and airplane performance analysis methods applied to practical design project.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisite: AET 300 with D or better; Senior academic level OR Technology and Innovation MS/MSTECH or Fulton Engineering MS/MSE/PHD students
AET	492	Honors Directed Study		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6		
AET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
AET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Manufacturing Engineering Technology students; Minimum cumulative GPA of 2.00
AET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Manufacturing Engineering Technology students; Minimum cumulative GPA of 2.00

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
AET	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	524	Application of Heat Transfer	Energy conservation, steady-state and transient conduction, convection transfer, free and forced convection Reynolds analogy, blackbody and environmental radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
AET	525	Advanced Propulsion	Mechanics and thermodynamics of propulsion systems. Solid, liquid propellant rocket design performance. Electrical nuclear propulsion systems. Space missions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 434 or AET 415 with D or better; Technology Innovation or Fulton Engineering students; Senior or higher academic level
AET	560	Numerical Methods in Engineering Technology	Analyzes problems in physical sciences, models physical problems, perturbation techniques, curvefitting, data analysis, numerical solutions, ordinary and partial differential equations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Technology Innovation or Fulton Engineering students; Senior or higher academic level
AET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		
AET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
AFH	202	Art of Africa, Oceania, and the Americas	History of art of Africa, Oceania, and the New World. Meets non-Western art history requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & H & G	
AFH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	300	Precolonial Africa	Surveys social, economic, political, cultural, and economic institutions and civilizations of Africa before European colonialism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	303	African and African American Art	Anthropological perspective of African and African American visual art traditions from the past to 1970.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	305	The Global History of the Trans-Atlantic Slave Trade	Origins, development, abolition, and impact of Atlantic slave trade as a global economic enterprise and great human tragedy; slavery experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	318	African and African Diaspora Women Writers	Intersection of race, class, gender, and ethnicity in black women's fiction from the United States, the Caribbean, and Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	319	Black Experience in Latin America	Examines several aspects of the experience of Africans in the Latin America diaspora; comparisons with United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		

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AFH	331	Studies in African American Women Writers of Pre-Harlem Renaissance	Focuses on novels, short stories, essays, speeches, and dramas that gave voices to African American woman in pre-Harlem Renaissance era. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	
AFH	335	Survey of African Literatures	Intersection of colonialism, race, class, gender, nationalism, postcoloniality, social transformation, and ethnicity in African writers' fiction and literary production.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees. Fee (hybrid/Internet).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
AFH	353	African American Literature: Beginnings through the Harlem Renaissance	Historical survey of African American literary traditions and cultural contexts from slavery through the 1930s.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	
AFH	354	African American Literature: Harlem Renaissance to the Present	Historical survey of African American literary traditions and cultural contexts from the 1920s to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
AFH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	459	Studies in African American/Caribbean Literatures	Studies in African American or Caribbean literatures according to genre, period, theory, or selected authors. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	
AFH	465	Harlem Renaissance: a Cultural History: 1877-1945	Socio-political, historical contexts and worldwide ramifications of the cultural productions (theater, music, visual arts, and literature) of the Harlem Renaissance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	492	Honors Directed Study		N	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFH	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
AFH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	191	First Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
AFR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	210	Introduction to African American Studies	Examines the political, historical, and cultural origins of African American studies as an academic discipline.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	317	Genes, Race and Society	Examines history of biological and social constructions of race in western society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFR	375	Race, Gender and Sport	Interdisciplinary examination of the social concepts of race and gender and their economic impact on sports in America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
AFR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	428	Critical Race Theory	Examines ways in which race has been historically utilized, constructed, and contested in American civil society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	429	African American Studies Theory and Methods	Examines social and behavioral science theories and methodological procedures pertaining to African Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	460	Race, Gender and Media	Reading seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		

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AFR	490	Field Studies in the Diaspora	Introduces methods and principles of research applied to Black communities within and outside Arizona. Involves working with field officer and faculty.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
AFR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-7		
AFR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	508	Colonial Rule and the African Experience	Impact of European colonial rule on the shaping of African consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	525	Foundations of Caribbean Studies	Broad interdisciplinary understanding of the Caribbean that surveys the region's history, politics, economy, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	526	Selected Topics in Caribbean Politics	In-depth understanding of the impact of selected topics on the political economy and social infrastructure of the Caribbean.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		

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AFR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
AFR	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
AFS	200	Introduction to African and African Diaspora Studies	Introduces the study of African and African-descended peoples; theory, themes, and perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	202	Ethnic Relations in the United States	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFS	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	301	Race and Racism in Africa/African Diaspora	Construction of race, racism, and race relations in Africa/African Diaspora; practices of agency to challenge ethnicity, racism, and racial oppression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	304	Islands of Globalization: Caribbean Political Economy	Impact of globalization on the economic, political, and social condition of the islands and mainland countries of the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	310	African/African American Psychology	Historical and contemporary overview of the development of African/Black psychology and African American frame of reference.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	312	Contemporary African and African Diaspora Women	Explores recent literary, theoretical, and methodological themes concerning the study of African/African Diaspora women and the phenomena of modernization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		

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AFS	320	Africa: Politics, Environment, and Development	Uses African experience to understand the consequences of human environment relationships, wealth and power differentials, and individual and global citizenship.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	327	Human Rights in Africa	Comparative study of human rights focusing on colonial and post-colonial Africa from historical and contemporary perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	332	Life and Death in Ancient Egypt	Reveals ancient Egyptian life through recent research in archaeology and physical anthropology on cemeteries, tombs, and the dead themselves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisite: ASB 222
AFS	340	The Making of Modern Africa	Events and processes leading to the colonization of Africa and subsequent changes in African societies under colonial rule and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	345	The Making of the Caribbean Society	Historical socioeconomic and political factors and institutions creating the wider Caribbean from the 15th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	355	Democracy and Civil Society in Africa	Examines contending perspectives on the state and civil society and democratic struggles using sub-Saharan Africa and case study.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	360	Black Families in the Diaspora: U.S. and Caribbean	Comparative study of historical and current themes in the structure and internal dynamics of African Diaspora families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	363	African American History to 1865	The African American in American history, thought, and culture from slavery to 1865.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFS	364	African American History Since 1865	The African American in American history, thought, and culture from 1865 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C & H	
AFS	366	African Archaeology: Precolonial Urban Culture	Overview of African civilization from the last 10,000 years up to 1850 via archaeological, documentary, and oral data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	370	Family, Ethnic, and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
AFS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	415	Black Political Thought and the Limits of Liberal Democracy	Black political and social thought; conflict between liberal democratic ideals and structures of domination and exploration from African Diaspora perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	466	Peoples and Cultures of Africa	Surveys African peoples and their cultures, external contact, and changes. Meets non-Western requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	480	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
AGB	420	Food Marketing	Food processing, packaging, distribution, market research, new food research and development, and social implications.	N	LEC	N	OPT	Morrison Sch of Agribusiness	Morrison School of Management and Agribusiness	3.		
AGB	420	Food Marketing	Food processing, packaging, distribution, market research, new food research and development, and social implications.	N	LEC	N	OPT	Morrison Sch of Agribusiness	Morrison School of Management and Agribusiness	3.		
AGB	100	Introduction to Agribusiness	Overview of agribusiness industries and career opportunities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	161	Computer Applications for Agribusiness Industries	Uses and integrates word processing, spreadsheets, and databases as tools for managing an agribusiness firm.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
AGB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	271	Veterinary Medicine Today	Introduces the role of the veterinarian as related to the fields of food supply and veterinary medicine.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AGB	321	Agribusiness Marketing II	Examines the food marketing system with emphasis on the marketing institutions, arrangements, and methods for basic commodities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	333	Agribusiness Finance II	Introduces financial markets and institutions. Interest rate determination, money and banking, equity markets, farm credit system, vendor financing.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	340	Food Processing	Introduces processed food quality assurance, statistical sampling, and inspection procedures.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	360	Agribusiness Statistics	Statistical methods with applications in agribusiness and resource management.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
AGB	364	Agribusiness Technologies I	Biotechnology and other methods used in the production, processing, and distribution of food.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	365	Agribusiness Technologies II	Examines methods of managing diverse crop and livestock enterprises with emphasis on growth, development, marketing, and loss prevention.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	372	Introduction to Veterinary Practice Management Module I	Initial offering of a three-module program that is an overview of the operation of a veterinary practice.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	373	Veterinary Practice Management Module II: Human Resources	Intermediate course of a three-module program covering human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	374	Veterinary Practice Management Module III: Finance and Marketing	Final course of a three-module program covering financial and marketing issues faced by veterinary practice managers.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	410	Agribusiness Management II	Principles of human resource management in agribusiness firms.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	411	Agricultural Cooperatives	Organization, operation, and management of agricultural cooperatives.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	414	Agribusiness Analysis	Analysis of agribusiness firm decisions in the ecological, economic, social, and political environments. Special emphasis on ethical issues surrounding food production and consumption.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	L	
AGB	422	Consumer Behavior	Applies behavioral concepts in analyzing consumer food purchases and their implications for marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	424	Agribusiness Sales	Principles and techniques of selling and merchandising in the agricultural and food industries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	425	Agricultural Marketing Channels	Operational stages of agricultural commodities in normal distribution systems and implementation of marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	429	Marketing Research	Examines the marketing research process and its role in facilitating agribusiness decisions. Emphasizes problem identification, survey design, and data analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	431	Intermediate Agribusiness Financial Management	Comprehensive treatment of topics in financial management of agribusiness: capital structure, dividend policy, asset valuation, mergers and acquisitions, risk management.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	433	Intermediate Agribusiness Financial Markets	Role and function of agribusiness in U.S. financial system. Topics include rural banking, farm credit system, monetary policy, and federal reserve.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	434	Agricultural Risk Management and Insurance	Strategies to manage agricultural price and business risk: derivatives, insurance, self-insurance, and public policy.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	435	Agricultural Commodities	Trading on futures markets. Emphasis on the hedging practices with grains and meats. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	436	Entrepreneurship and Financial Management of E-Commerce	Uses lectures, case studies, and business plans to highlight challenges of starting and running a small business.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	440	Food Safety	Control, prevention, and prediction of microbial and chemical food-borne diseases.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	442	Food and Industrial Microbiology	Food- and industrial-related microorganisms; deterioration and preservation of industrial commodities. Lecture, lab.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	4.		
AGB	445	Food Retailing	Food retail management. Discusses trends, problems, and functions of food retail managers within various retail institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	450	International Agricultural Development	Transition of developing countries from subsistence to modern agriculture. Emphasis placed on implications for U.S. agribusiness working abroad.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	G	
AGB	451	Management Science	Focuses on the construction, solution, and interpretation of quantitative models used for management decision making in agribusiness firms.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
AGB	452	International Agricultural Policy	Use of international trade theory to analyze the effects of government policies, trade agreements, and exchange rates on agribusiness.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	454	International Trade	International practices in trading of agribusiness, technology, and resource products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		

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AGB	455	Resource Management	Explores differences between societal and individual valuations of natural resources; considers public policy versus market-based solutions to environmental concerns.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	SB	
AGB	460	Agribusiness Management Systems	Development and use of decision support systems for agribusiness management and marketing.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	465	Organic Farming Technologies	Organic farming methods, including certification, soil fertility, planting, integrated pest management, irrigation, cover crops, rotations, and marketing farm products.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	470	Comparative Nutrition	Effects of nutrition on animal systems and metabolic functions.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	481	Applied Microeconomics	Emphasizes application of the theory of the firm, theory of exchange, and consumer theory.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-6		
AGB	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-6	L	Pre-requisites: Must be an Honors student
AGB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-7		
AGB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-3		
AGB	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	511	Advanced Agribusiness Management	Analysis of organization behavior, change, and resource requirements within agribusiness systems.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	513	Advanced Cooperatives	Advanced study of cooperatives and other nongovernmental organizations (NGO) focusing on management and proposal preparation for international agencies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	514	Advanced Agribusiness Analysis	Vertical integration and differentiation in food and agricultural industries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	528	Advanced Agribusiness Marketing	Theory and analysis of marketing farm commodities, risks, and the effect of future trading on cash prices.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	529	Advanced Agribusiness Marketing Channels	Analyzes agribusiness market channel systems. Formulation of marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	532	Advanced Agribusiness Finance	Financial management of agribusiness firms; agribusiness financial analysis, investment analysis, agricultural risk management, and introduction to agricultural financial intermediaries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	535	Commodity Analysis	Analysis of commodity markets.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	540	Advanced Food Science	Chemical and physical nature of processed foods. Emphasizes food product development.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	550	International Agricultural Development	Transition of developing countries from subsistence to modern agriculture. Emphasis placed on implications for U.S. agribusiness working abroad.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	552	International Agricultural Policy	Uses international trade theory to analyze the effects of government policies, trade agreements, and exchange rates on agribusiness.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	554	Advanced International Trade	Advanced international practices in trading of agribusiness, technology, and resource products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	560	Advanced Agribusiness Management Systems	Development and use of decision support systems for agribusiness management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	561	Applied Econometrics	Uses model building, hypothesis testing, and empirical analysis in solving agribusiness problems.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	570	Managerial Economics for Agribusiness	Concepts in micro- and macroeconomics applied to agribusiness management environments: price formation, market structure, information economics, fiscal and monetary policy.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		

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AGB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	581	Advanced Agribusiness Policy	Policy-making history, structure, and process.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	589	Agribusiness Capstone	Strategic management of organizations focusing on developing value-creating strategies in dynamic environments.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
AGB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	701	Advanced Agribusiness I	Advanced topics include demand analysis, empirical industrial organization, welfare economics, agricultural policy, international trade, and consumer behavior.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	702	Advanced Agribusiness II	Topics include macromarketing, marketing research, futures and options markets, derivatives, risk management, financial innovation, and forecasting.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	703	Agribusiness Research Methods	Survey course in current research methods in economics, marketing, finance, and management as applied to agribusiness topics. May be repeated for credit.	N	SEM	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-15		
AGB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-15		
AIS	180	Introduction to American Indian Studies	Introduces the study of American Indian justice issues from an interdisciplinary perspective. Primary topics include sovereignty, law, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	
AIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	280	American Indian Sovereignty and the Courts	Examines the sovereign status of American Indians and legal relationships between the tribes and the U.S. government.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	H & C	

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AIS	285	Federal Indian Policy	Examines the sovereign status of American Indians and legal relationships between the tribes and the U.S. government.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	H & C	
AIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	370	American Indian Languages and Cultures	Emphasizes understanding of Indian language families and the relationship of oral traditions to culture.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	Pre-requisite: AIS 180 with C or better
AIS	380	Contemporary Issues of American Indian Nations	Surveys legal, socioeconomic, political, and educational state of contemporary reservation and urban Indians.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	
AIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	420	American Indian Studies Research Methods	Surveys diverse research methods, including statistical, historical, interpretative, and narrative approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	L	Pre-requisite: AIS 180 with C or better
AIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-12		
AIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-7		
AIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-3		
AIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-12		
AIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
ALA	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H & G	
ALA	102	Architecture, Landscape Architecture, and Society	Examines interrelationship between society and the landscape with emphasis on human involvement in shaping the landscape.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	G	
ALA	121	Design Fundamentals I	Development of visual literacy. Introduces drawing and graphic representation as methods of seeing and problem solving.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be an Undergraduate in the College of Design
ALA	122	Design Fundamentals II	Exercises in basic design, stressing creative problem-solving methods, principles of composition, and aesthetic evaluation. Development of vocabulary for environmental design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be: Pre-Landscape Architecture, Landscape Architecture BSLA or Pre-Architectural Studies; Must have completed either ADE 120, ALA 120 or PLA 161 with a grade of C or greater or be currently enrolled; Co-requisite: ALA 223
ALA	124	Design Fundamentals II Lecture	Theory and applications of basic design principles, history and theory of how architecture and landscape architecture design is impacted by basic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Must be Pre-Architectural Studies student; Co-requisite: ALA 221 OR Must be Pre-Landscape Architecture student
ALA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ALA	200	Introduction to Architecture	Surveys issues and polemics affecting current architectural theory and practice.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & G	
ALA	225	Design Fundamentals III	Applies design fundamentals with an emphasis on architectural and landscape architectural issues.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Pre-Architectural Studies student; must have completed ALA 221 with a grade of C or greater or be currently enrolled; Co-requisite: ALA 224 OR Must be Pre-Landscape Architecture student and Co-requisite: ATE 353
ALA	227	Design Fundamentals III Lecture	History and theory of design fundamentals with an emphasis on architectural and landscape architectural design issues.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Must be Pre-Architectural Studies student; Co-requisite: ALA 222 OR Must be Pre-Landscape Architecture student
ALA	235	Introduction to Computer Modeling	Fundamentals of computer operation, geographic information systems, geometric modeling of 3-D forms and rendering of light, mathematical modeling of processes using spreadsheets.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	CS	Pre-requisites: Must be either Pre-Architectural Studies or Pre-Landscape Architecture student
ALA	240	Architectural and Landscape Architectural Construction	Materials and methods of construction. Aesthetic, code, and cost considerations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Pre-Architectural Studies or Pre-Landscape Architecture student; Co-requisites: ALA 222 and ALA 224

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ALA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ALD	101	Introduction to Aging Issues	Introduces students to general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in midlife and beyond, living options, caregiving, and retirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	101	Introduction to Aging Issues	Introduces students to general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in midlife and beyond, living options, caregiving, and retirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-3		
ALD	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	202	Field Placement I	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	P/F	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	202	Field Placement I	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	P/F	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	203	Field Placement II	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202
ALD	203	Field Placement II	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202
ALD	204	Field Placement III	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	P/F	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202; ALD 203
ALD	204	Field Placement III	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	P/F	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202; ALD 203
ALD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	301	Research Methods in Aging	Examines social science approaches to the study of aging. Includes particular methodological issues that must be considered when studying older adults.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	303	Aging, Lifespan Development, and the Family	Explores aging and its effects on family members, as well as how families with aging members are affected by societal issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	303	Aging, Lifespan Development, and the Family	Explores aging and its effects on family members, as well as how families with aging members are affected by societal issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	404	Sexuality in Mid-Life and Beyond	Examines issues of sexuality in the middle and older adult years. Includes physical changes, myths and stereotypes, gender issues, and relationships issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	404	Sexuality in Mid-Life and Beyond	Examines issues of sexuality in the middle and older adult years. Includes physical changes, myths and stereotypes, gender issues, and relationships issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	420	Health Issues and Older Adults	Examines biological, social, and behavioral aspects of health in the later years. Considers the organization and delivery of care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	420	Health Issues and Older Adults	Examines biological, social, and behavioral aspects of health in the later years. Considers the organization and delivery of care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	431	Caregiving for Older Adults	Examines theory and practice of caregiving for the senior population.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better or currently enrolled
ALD	431	Caregiving for Older Adults	Examines theory and practice of caregiving for the senior population.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better or currently enrolled
ALD	440	Social Policy and Aging	Examines the historical, socio-political, and economic issues that are specific to older Americans. Includes federal, state, and local policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better
ALD	440	Social Policy and Aging	Examines the historical, socio-political, and economic issues that are specific to older Americans. Includes federal, state, and local policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better
ALD	460	Alzheimer's and Related Dementias	Familiarization with Alzheimer's disease and related dementias from a caregiver's perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	460	Alzheimer's and Related Dementias	Familiarization with Alzheimer's disease and related dementias from a caregiver's perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	472	Women, Aging, and the Life Course	Focuses on issues affecting women as they age, including media messages, cultural differences, economic issues, and relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		

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ALD	472	Women, Aging, and the Life Course	Focuses on issues affecting women as they age, including media messages, cultural differences, economic issues, and relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-6	L	Pre-requisites: Must be an Honors student
ALD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-7		
ALD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-3		
ALD	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	505	Perspectives on Aging and the Life Course	Overview of general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in mid-life and beyond, living options, caregiving, and retirement. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	505	Perspectives on Aging and the Life Course	Overview of general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in mid-life and beyond, living options, caregiving, and retirement. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	520	Health Aspects of Aging Adults	Examines biological, social, and behavioral aspects of health in the later years, and the organization and delivery of care. Includes an emphasis on wellness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	520	Health Aspects of Aging Adults	Examines biological, social, and behavioral aspects of health in the later years, and the organization and delivery of care. Includes an emphasis on wellness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	525	Mental Health in Midlife and Beyond	Focuses on the psychological, emotional, and cognitive changes as individuals age. Includes assessment and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	525	Mental Health in Midlife and Beyond	Focuses on the psychological, emotional, and cognitive changes as individuals age. Includes assessment and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	531	Caregiving Issues for Families and Professionals	Examines the issues of caregiving by family members, in-home aids, and professionals in care facilities. Focuses on issues related to providing care to older adults in a variety of settings. Includes social policy toward caregiving, caregiver stress and reward, the role of social workers, and cultural concerns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites:ALD 505 with a grade of C or better or currently enrolled or co-enrolled
ALD	531	Caregiving Issues for Families and Professionals	Examines the issues of caregiving by family members, in-home aids, and professionals in care facilities. Focuses on issues related to providing care to older adults in a variety of settings. Includes social policy toward caregiving, caregiver stress and reward, the role of social workers, and cultural concerns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites:ALD 505 with a grade of C or better or currently enrolled or co-enrolled
ALD	535	Physical Activity and Aging	Examines and discusses the theoretical and applied health-related research on physical activity and aging.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	540	Public Policy Issues and Aging	Examines in detail the historical, socio-political, and economic issues that are specific to older Americans at the federal, state, and local levels. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	540	Public Policy Issues and Aging	Examines in detail the historical, socio-political, and economic issues that are specific to older Americans at the federal, state, and local levels. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	545	Elder Abuse and Neglect	Provides a comprehensive review of crimes against older adults. Includes all types of abuse and neglect, as well as prevention, intervention, and public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ALD	545	Elder Abuse and Neglect	Provides a comprehensive review of crimes against older adults. Includes all types of abuse and neglect, as well as prevention, intervention, and public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	560	Dementia	Thorough examination of dementia and dementia syndromes, including Alzheimer's disease. Includes the complexity and diversity of behaviors that define dementia, and implications for planning interventions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	560	Dementia	Thorough examination of dementia and dementia syndromes, including Alzheimer's disease. Includes the complexity and diversity of behaviors that define dementia, and implications for planning interventions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	360	Renewable Energy Technologies: Fundamentals and Integration	Technical fundamentals, economic, and social aspects of renewable energy technologies with emphasis on solar cells, hydrogen economy, and fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		

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ALT	401	Hydrogen Generation, Storage, and Distribution	Overview of primary technologies, economic aspects, and social policy issues related to development of hydrogen systems and hydrogen economy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	405	Power Conditioning	Fundamentals of power electronics; DC-DC converters and DC-AC inverters; battery charge controllers. Lab experience.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for ALT 505, may not enroll in ALT 405
ALT	410	Solar Cells and Module	Basic device physics and engineering of solar cells. Lab experience on fabrication, characterization, and testing of solar cells and module.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	420	Electrochemical Energy Technologies	Thermodynamic and electrochemical principles of fuel cells. Hands-on experience on fabrication and testing of fuel cells; problem solving skills.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	435	Applied Photovoltaics	Overview of solar radiation, operating principles of photovoltaics, qualitative analysis on influencing parameters. market trends, basics of PV systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Students who have credit for ALT 535, may not enroll in ALT 435
ALT	445	Automotive and Stationary Fuel Cell Systems	Practical overview of fuel cell systems for stationary, residential, and transportation applications based on load and duty cycle requirement of specific application.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
ALT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	501	Advanced Renewable Energy: Global Hydrogen Economy	Global, comprehensive evaluation of all renewable energy sources with focus on solar cells, hydrogen, and fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	502	Batteries for Portable Electronics	Theoretical and practical overview of primary, secondary, and lithium batteries. Key performance characteristics, construction materials, typical applications, recycling, and disposal.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	503	Fuel Cells for Portable Electronics	Overview of electrochemistry, portable electronics industry, principles of fuel cells, and prospects for micro fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	505	Power Conditioning	Fundamentals of power electronics, DC-DC converters and DC-AC inverters, battery charge controllers.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Credit is allowed for only ALT 405 or 505
ALT	506	Fuel Cell Integration and Packaging	Practical overview of integration and packaging of fuel cell system, which comprises a fuel processor module, a fuel cell module.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	507	Evaluations of Photovoltaic and Fuel Cell Systems	Field testing, data collection, and evaluation of real-world photovoltaic and fuel cell systems available on campus and data analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	535	Applied Photovoltaics	Term projects, overview of solar radiation, operating principles, qualitative analysis on influencing parameters, market trends, basics of PV systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students with credit in ALT 435, may not enroll in ALT 535
ALT	545	Automotive and Stationary Fuel Cell Systems	Practical overview of fuel cell systems for stationary, residential, and transportation applications based on load and duty cycle requirement of specific applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AME	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-6		
AME	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-6	L	Pre-requisites: Must be an Honors student
AME	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-7		
AME	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-3		
AME	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	590	Reading And Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		

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AME	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-15		
AME	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-15		
AML	100	Introduction to Applied Mathematics for the Life and Social Sciences	Introduces quantitative techniques as applied to problems in the life and social sciences. Includes challenges like understanding the complexities of the human genome or the implications of globalization for infectious disease, human health, and economic stability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
AML	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students. Must have taken 25 or fewer semester hours. Consulting an academic advisor before enrolling is recommended.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
AML	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	406	Directed Reading and Research in Applied Mathematics for the Life and Social Sciences	Collaborative, practice-oriented course where students produce individual or team-initiated research project reports on pertinent topics in the life and social sciences. Students select topics, design, identify and formulate effective research ideas, and then translate them into clear and effective research plans.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Completed at least two from the following: MAT 270, 271, 272; AND STP 226 (or 231 or 420)
AML	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
AML	492	Honors Directed Study		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	493	Honors Thesis		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	497	Honors Colloquium		Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AML	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
AML	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
AML	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	610	Topics in Applied Mathematics for the Life and Social Sciences	Introductory course in applied mathematics for the life and social sciences, combined with the first semester of a two-semester course in mathematical biology. Provides a solid introduction to the modeling of biological and social processes as well as to some of the mathematical approaches involved in their analysis and simulation.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
AML	611	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	612	Applied Mathematics for the Life and Social Sciences Modeling Seminar	Presents and applies mathematical modeling principles and techniques for representing the structure and operation of complex life and social systems and processes. Helps students identify potential problems in the life and social sciences and the corresponding mathematical and statistical methods that can be used for their study.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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AML	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AMS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
AMS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	301	Introduction to American Studies	Introduces the interdisciplinary study of American culture, emphasizing critical reading and writing skills.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
AMS	310	History of American Systems to 1865	First of a two-part survey of political, legal, and economic institutions, placed in the context of the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	311	History of American Systems Since 1865	Second in a two-part survey of political, legal, and economic institutions, placed in the context of a dynamic industrialist capitalist society, from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	314	Military Studies	Topics in the history of the American military.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	316	American Religious Systems	Topics in American religion; may include Hispanic missions of the Southwest. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	320	American Cultural History I	First of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	

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AMS	321	American Cultural History II	Second of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	322	Studies in American Literature	Topics in American literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	323	Studies in American Art and Architecture	Topics in the visual arts and material culture. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	326	Popular Culture	Topics in American popular culture, including theories of popular culture; the history and analysis of mass media, including television, film, and the music industry; and vernacular art and the folk tradition.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	327	Regional Cultures	Examines the concept of regionalism and regional cultures in America with a special emphasis on the Southwest/Borderlands.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	330	Introduction to American Lives	Examines American society through the study of autobiography and ethnography.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
AMS	332	Studies in Race and Ethnicity	Topics relating to issues of race and ethnicity in American life. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	334	The American Class System	Studies in social classes and their function within American society. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	335	American Biography	Topics in biographies of individuals, comparative biographies, the art of biography, and the function of autobiography.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	342	Writing about American Culture	Teaches methods of writing cultural criticism, emphasizing the essay form.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	344	Creative Writing	Emphasizes the study and practice of creative nonfiction. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	345	Reporting	Fundamentals of news gathering, interviewing, and in-depth reporting.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	346	Editing	Theory and practice of editing.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	351	Technical Writing	Computer-based instruction in writing documents for online, oral, and print formats, focusing on audience-centered rhetoric.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	412	Studies in American Politics & Law	Topics in American political and legal systems, including social movements in the United States and women and the law. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	414	Military Studies	Topics in the history of the American military. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	417	Religious Traditions of the American Southwest	Examines the sacred traditions that have evolved within the North American Southwest context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	422	Studies in American Literature	Topics in American literature, including contemporary American comic fiction, literature of the American South, literature of American wars, Hispanic chronicles of the Southwest, literature of la Chicana, and American rhetoric. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	428	Chicano Cultures in the Southwest	Examines and explores Chicana and Chicano culture as place and sentiment. The physical place and space and the sentiment related to Chicanas and Chicanos.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
AMS	429	Interdisciplinary Topics	Senior-level seminar that examines issues relevant to two or more American cultures' fields. Topics may include Southwest/border Hispanic folklore, Southwestern corridors, American art and the city, and the West of the imagination. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	431	Gender Studies	Topics relating to issues of gender in American life. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	432	Studies in Race and Ethnicity	Topics relating to issues of race and ethnicity in American life. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	490	Writing Certificate Portfolio	Preparing a portfolio demonstrating advanced writing skills. Limited to and required of students in the Writing Certificate Program.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		
AMS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		

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AMS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
AMS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		Pre-requisites: ENG 101 or 105 with C or better; AMS 301 with C or better
AMS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMT	100	Flight Operations and Safety I	Supervised private pilot flight training and flight safety briefings and recurrent aviation subjects appropriate for private pilots. Requires continuous enrollment until completion of FAA Private Pilot Certificate. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	2.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND must have C or greater in AMT 182 and AMT 220 OR Corequisite: AMT220 and AMT182
AMT	101	Introduction to Aeronautical Management Technology	Facilitates entry into aeronautical management technology programs. Emphasizes General Catalog; major and concentration requirements, registration, careers, and Polytechnic campus resources. Introduces various learning styles and strategies that assist students in becoming successful learners. Emphasizes time management techniques and academic integrity.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		
AMT	182	Private Pilot Ground School	Ground school preparation for Private Pilot Certificate. Aerodynamics, navigation, performance, and regulations.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
AMT	200	Flight Operations and Safety II	Supervised commercial instrument flight training, safety briefings, and recurrent aviation subjects as appropriate for commercial and instrument pilots. Requires continuous enrollment until completion of FAA Commercial Pilot Certificate with Instrument Rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	201	Air Traffic Control	Ground and air operations; weather services communications and routing; flight plans, IFR operations, departures and arrivals; and airport conditions and emergencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Aero Mngt Tech (Prof Flight) OR Aero Mgmt Tech (AWS Mgmt) OR Air Traffic Management student
AMT	214	Commercial/Instrument Ground School I	Ground school leading to FAA Instrument Pilot Rating/Commercial Pilot Certificate (part 1 of 2). 10 hours ground trainer included.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Aero Mngt Tech (Prof Flight) student; AMT182, AMT220 and AMT101 with C or better
AMT	220	Aviation Meteorology	Evaluation, analysis, and interpretation of atmospheric phenomena. Low- and high-altitude weather from the pilot's viewpoint.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	280	Aerospace Structures, Materials and Systems	Basic aerodynamics, incompressible/compressible airflow, wind tunnel testing, wing theory; analysis of aircraft structures; properties and applications of materials, and aircraft systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	4.		Prerequisite: Must have earned a D or better in PHY 111, and PHY 113
AMT	287	Aircraft Powerplants	Theory and performance analysis of gas turbine and reciprocating aircraft engines. Engine accessories, systems, and environmental control.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	4.		Prerequisite: Must have earned D or greater or currently enrolled in PHY 111 or PHY 121 OR Corequisite: PHY111 or PHY121
AMT	300	Flight Operations and Safety III	Supervised instructor flight training, safety briefings, and appropriate recurrent aviation subjects. Requires continuous enrollment until completion of FAA Flight Instructor Certificate with Instrument Instructor Rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	308	Air Transportation	Studies the historical and international development of air transportation and its social, political, and economic impact upon global interrelationships.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	Pre-requisite: Total earned hours must be greater than or equal to 50
AMT	322	Commercial/Instrument Ground School II	Ground school leading to FAA Instrument Pilot Rating/Commercial Pilot Certificate (part 2 of 2). 10 hours ground trainer included.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater or currently enrolled in AMT100, AMT182 and AMT214
AMT	350	Aircraft Design and Logistics Management	Fundamental aircraft design principles, including performance factors associated with mission profiles and the identification of basic logistical support requirements. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a C or greater in AMT280 and AMT287 or be currently enrolled OR Corequisites: AMT287

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AMT	370	Air Freight Operations	Air freight operations in National Aviation System; ramp operations, loading, weight and balance, and administration of airside and groundside operations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	382	Air Navigation	Theory and application of modern advanced navigation and flight instrument systems. Introduces crew resource management in multiplace cockpits.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater in AMT200 or AMT322 or be currently enrolled
AMT	385	Flight Instructor Ground School	Ground school in preparation for the FAA Flight Instructor Certificate.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	387	Multiengine Pilot Ground School	Ground school preparation for the FAA Multiengine Rating.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Prerequisite: Must be a Technology Science BS student AND have a C or greater in AMT200 or be currently enrolled OR Corequisite: AMT200
AMT	391	Multiengine Instructor Ground School	Ground school preparation for the FAA Multiengine Flight Instructor Rating. Integrated lecture/lab.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	2.		Pre-requisite: Technology Science BS student
AMT	392	Flight Instructor Instrument Ground School	Ground school preparation for the FAA Instrument Flight Instructor Rating.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must be Technology Science BS student AND earned C or greater or currently enrolled in AMT 200 and AMT 385
AMT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
AMT	396	Aviation Professional	Career focus for management and flight students, including internships, writing, interviews, and employment search in aviation industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Pre-requisite: Technology Science BS or BAS student; Minimum 50 hours
AMT	400	Flight Operations and Safety IV	Multiengine and crew training, safety briefings, and appropriate recurrent aviation subjects. Requires continuous enrollment until completion of multiengine rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	401	Multiengine Instructor Rating	Normal and emergency flight operations. Instruction techniques and procedures for light multiengine land, airplane. CFIAME Rating required for course completion.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		
AMT	408	National Aviation Policy	Examines aviation and airspace policies and policy process, including agencies involved in formulation, implementation, and evaluation of aviation policy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must have a C or greater in AMT 308 or be currently enrolled
AMT	410	Aviation Safety and Human Factors	Aviation accident prevention, human factors, life support, fire prevention, accident investigation, and crash survivability. Development and analysis of aviation safety programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Total earned hours must be greater than or equal to 50
AMT	412	Air Transportation Research	Surveys practical research methodology in use in the air transportation industry. Topics include planning and design considerations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		
AMT	442	Aviation Law/Regulations	Aviation within context of U.S. Common Law system. Public law, administrative rule making, sovereignty, enforcement, and case law analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Total earned hours must be greater than or equal to 50
AMT	444	Airport Management and Planning	Orientation to administration and management of modern public airports, including overview of planning, funding, and development of airport facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Minimum Junior standing
AMT	482	Airline Instrument Procedures	Advanced instrument flight using airline instrument procedures and airline crew and cockpit resource management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater in AMT200 or 322 or currently enrolled AND earned a C or greater in AMT 382 or be currently enrolled
AMT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
AMT	486	Regional Jet Aircraft Systems	Regional jet airline aircraft systems and flight procedures. Includes theoretical education for regional jet commercial passenger aircraft.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must be Technology Science BS student AND earned a C or greater in AMT300 and AMT382 or be currently enrolled AND must have a C or greater in AMT 482 or be currently enrolled or Corequisite: AMT482
AMT	488	Regional Jet Aircraft Systems II	Regional jet systems, with emphasis on air navigation systems, including Flight Management System (FMS), Selective Calling (SELCAL), and flight profiles.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	489	Airline Administration	Administrative organizations, economics of airline administration, operational structure, and relationship with federal government agencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Academic level must equal Junior or greater AND must have a C or greater in AMT 308 or be currently enrolled
AMT	490	Regional Jet Operations Capstone	Regional jet aircraft operations and flight procedures. Includes theoretical education for RJ aircraft, FTD and full-motion simulator time.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND must have a C or greater in AMT400 and AMT482 or currently enrolled AND AMT300 or AMT486 or be currently enrolled
AMT	491	Aviation Management Capstone	Integrated group project with industry partner to address current problems in either air carrier or airport management focus area.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Academic Level greater than or equal to Senior
AMT	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-6	L	Pre-requisites: Must be an Honors student
AMT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Prerequisite: University Cumulative GPA is greater than or equal to 2.25
AMT	496	Airline Aircraft Systems Capstone	Commercial airline aircraft systems and flight procedures. Includes theoretical education for large, commercial passenger aircraft.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		

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AMT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		
AMT	520	Airline Pricing and Yield Management	Airline economics at the operating level; historical and current operational strategies; demand, traffic, price, yield, revenues, and costs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	521	Air Transportation Regulation	Reviews evolutionary history of government regulations. Explores alternatives for economic, safety, social, and administrative regulatory reform in air transportation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	522	Aviation Law	Examines the U.S. legal system with a focus on the aviation perspective, administrative agencies, FAA enforcement, and case law.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	523	Intermodal Transportation Management	Systems theory applied to intermodal transportation networks. Surveys air and ground transportation infrastructure, institutional frameworks, and intermediaries promoting connections between modes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	524	Airport Management and Operations	Overview of planning, funding, and development of airport facilities; legal and ethical considerations associated with airport management operations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	525	Airport Planning and Design	Completion of various phases of airport master planning process. Provides guidance for logical and timely development of airports. Project work groups assigned.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	526	Aviation Labor Relations	Investigates labor-management relations in the aviation industry, including laws, unionism, collective bargaining, public sector relationships, grievance procedures, and conflict.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	527	Airline Management Strategies	Since deregulation, airlines have undergone profound changes through mergers, consolidation, and acquisition. In-depth look at airline management strategies for the 21st century.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	528	International Aviation	Major issues of international aviation, historical review of institutional framework. Bilateral route agreements, freedom versus sovereignty, current legal and political arrangements.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	529	Fixed-Base Operations Management	Examines FBO role in the national aviation system. Organization of flight line operations, aircraft maintenance, and administration for multiple aircraft types.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	532	Managing Diversity in Aviation	Examines group identity and cognitive styles, cross-cultural issues, language and diversity, and effects of aviation culture on management of diversity.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	541	Aviation Physiology	Surveys human physiology and human performance principles related to modern aircraft and aircraft systems operating in multiple environments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	542	Human Factors in Automation	Examines human factors issues associated with automation. Includes impact of automation design, workload, stress, and system complexity on human operators.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	545	Human Factors in Aviation	Overview of human role in aviation. Issues, problems of unsafe acts and attitudes in human behavior. Human engineering capabilities and limitations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	546	Crew Resource Management/Line-Oriented Flight Training	Evaluates in-depth, multicrew coordination issues for commercial aviation pilots. Stresses importance of critical thinking, decision making, integrated resource utilization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	549	Applied Human Factors Research	Aviation human factors research principles applied and tested in operational settings. Group projects assigned in conjunction with industry partners.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student

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AMT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
ANP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ANP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	475	Computer Programming in Architecture	Computer programming for architectural problems and applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ANP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ANP	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
ANP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ANP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ANP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Must be one of the following students: Bldg Des(Energy Perform/Bldgs) MS, Bldg Des(Facilities Dev/Mgt) MS or Bld Design (Knowledge/Compng) MS
ANP	530	Computer Graphics in Architecture	Fundamentals of computer graphics programming in architecture, including graphics hardware, device-independent packages, 2- and 3-D transformations, and data structures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be MS Building Design Knowledge and Computing student
ANP	561	Architectural Information Processing Systems	Applies information processing systems to architectural problems. Analyzes computing tools with respect to assumptions and theories.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Design Studies BA or Bld Design (Knowledge/Compng) MS student
ANP	563	Methods in Architectural Design Computation	Concepts and models for research in computer-aided architectural design with an emphasis on computational methods and a system framework.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be Bld Design (Knowledge/Compng) MS student

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ANP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design (Knowledge/Compng) MS student
ANP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design (Knowledge/Compng) MS student
ANP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	DIS	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1		
ANP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design Knowledge and Computing MS student; ANP 592 with a grade of Y
ANP	681	Project Development	Defines and elaborates on major ideas for implementation in ADE 622 in relation to contemporary theory and practice.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3		Pre-requisite: Master of Architecture student
ANP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design Knowledge and Computing MS student
APA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisite: Freshman status
APA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	200	Introduction to Asian Pacific American Studies	Examines historical and contemporary issues facing Asian Americans and Pacific Islanders in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3	(HU or SB) & C	
APA	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3	C	
APA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	310	Asian Pacific American Arts and Cultures	Explores Asian Pacific American cultural expression in art, literature, film, theatre, dance, and music.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3	HU & C	
APA	315	Asian Pacific American Literature	Explores the literary history, critical reception, and major theories in Asian Pacific American poetry, fiction, and prose.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3	HU & C	
APA	330	Asian Pacific American Genders and Sexualities	Explores gender and sexuality issues as they relate to Asian Pacific American experiences, including interracial relationships, stereotypes, feminism, queer theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3	SB & C	
APA	340	Asian Pacific Americans and Media	Analyzes social construction of Asian Pacific American media images and resistance to those images in various historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3	HU & C	
APA	345	Asian Pacific Americans and Film	Examines representations of Asian Pacific Americans in narrative, popular, experimental, and documentary film.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3	HU & C & H	
APA	360	Asian Pacific American Experience	Historical and contemporary experiences of Asian Pacific American racial/ethnic groups in the United States.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3	(HU or SB) & C	
APA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		

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APA	450	Asian Pacific American Contemporary Issues	Focus on issues shaping Asian Pacific American communities, including immigration, politics, education, health, family, gender, youth, interracial relations, and other contemporary topics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
APA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
APA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
APA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
APA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
APH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
APH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	300	World Architecture I/Western Cultures	Historical and contemporary built environments of Western civilizations: Mediterranean, Europe, and the Americas as manifestations of cultural history and responses to environmental determinants.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2-3	HU & H & G	Pre-requisite: May not be Pre-Architectural Studies or Architectural Studies BSD student
APH	305	Contemporary Architecture	Europe and America from the foundations of the modern movement to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	Pre-requisites: College of Design students
APH	313	History of Architecture I	Surveys the monuments, buildings, and cities of Europe and Africa from the earliest human settlements to the present day.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & G & H	Pre-requisite: Juniors and Seniors only
APH	314	History of Architecture II	Surveys the monuments, buildings, and cities of Asia and the Americas from the earliest human settlements to the present day.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & G & H	
APH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	411	History of Landscape Architecture	Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	
APH	414	History of the City	The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & H	
APH	421	First Concepts: What is... The Writing, Philosophy, and Culture of Architecture	Examines the major writings and concepts that surround the history of architecture. Focuses on (but not exclusively) work in the 20th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: APH 313, & APH 314 with a grade of D or better or currently enrolled
APH	441	Ancient Arch	Architecture of the ancient Mediterranean world with selective emphasis on major historical complexes and monumental sites.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
APH	446	20th-Century Architecture I	Architecture in Europe and America from the foundations of the modern movement to the culmination of the international style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
APH	447	20th-Century Architecture II	Developments in architecture since the international style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
APH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
APH	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
APH	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student

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APH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
APH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
APH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
APH	505	Foundation Theory Seminar	Foundation of conceptual architectural inquiry, stressing the reciprocal and interdependent relationship between design and theory.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student; Co-requisites: ADE 522; ATE 556
APH	509	Foundation Seminar	Historical, technical, theoretical, environmental, and professional issues in architecture.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture; Co-requisite: ADE 510
APH	511	Energy Environment Theory	Solar and other energy sources in designed and natural environments; architectural, urban, and regional implications of strategies using other renewable resources.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
APH	515	Current Issues and Topics	Critical examination of current architectural issues, topics, and discourse.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must have completed APH 505 with a grade of C or better; Co-requisite: ADE 621
APH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	581	Contemporary Urban Design	Explores contemporary city and urban design issues related to contemporary cities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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APH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APL	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Applied Linguistics Ph.D. student
APL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Applied Linguistics Ph.D. student
APL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1		
APL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
APL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	601	Introduction to Applied Linguistics	Overview of the field of applied linguistics. Applies linguistic knowledge to the resolution of language-related issues facing multilingual societies (e.g., second language acquisition and ultimate attainment, literacy, language assessment, bilingualism, heritage and indigenous languages, language attitudes, language planning and policy, language and politics, world Englishes).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3		
APL	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		

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APL	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		
APL	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		
APM	265	Mathematics of Change I	The mathematics of differential calculus applied to engineering and science. Emphasizes numerical techniques, contextual scientific interpretation, and modeling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
APM	266	Mathematics of Change II	The mathematics of multivariable change applied to engineering and science. Emphasizes numerical techniques and modeling complex systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: APM 265 or MAT 265 with C or better
APM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
APM	301	Introductory Statistics	Probability, distributions, statistical hypothesis testing, t-tests, basic correlation, and regression.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
APM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
APM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-7		
APM	523	Optimization	Linear programming, unconstrained nonlinear minimization, line search algorithms, conjugate gradients, quasi-Newton methods, constrained nonlinear optimization, gradient projection, and penalty methods. Completion of courses in Applied Linear Algebra and Computational Methods is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	561	Nonlinear Analysis of PDEs in Fluids	Sobolev spaces; incompressible Euler and Navier-Stokes equations; weak and strong solutions; attractors and the connection with turbulence; geophysical applications. Completion of a course in Differential Equations II is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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APM	575	Perturbation Methods in Applied Mathematics	Regular and singular perturbation methods for ordinary and partial differential equations, Boundary layer theory, matched asymptotic expansions, multiple-scale, homogenization, and WKB methods. Application to nonlinear oscillations, bifurcation and stability problems. Completion of a course in Differential Equations II or Partial Differential Equations in Engineering is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: APM 502 or MAE 502; Credit is allowed for only APM 575 or MAE 505
AR	461	Adv Ceramics I		Y	LEC	Y	CNV	Herberger College of the Arts	School of Art	3.		
ARA	110	Sculpture Safety	Introduces safety and environmental health in the sculpture studios. Pre- or corequisite for all sculpture classes.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Art	1.		
ARA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	195	Art in My World	Basic concepts and fundamental questions that provide insights into art making and that affect one's understanding and appreciation of art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARA	202	Understanding Photographs	Slide lecture course in understanding photography as a fine art form.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	311	Art Appreciation and Human Development	Foundations of art for children and young adults. Emphasizes learning, development, and understanding art in historical and cultural contexts. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: Non-ART student; ENG 101; ENG 102; Minimum Junior standing
ARA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	460	Gallery Exhibitions	Practical experience in all phases of department gallery operations and preparation of gallery publications.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARA	488	Understanding Art	Understanding art as an emergent cultural phenomenon with an emphasis on a critical examination of conceptual issues in art. Writing required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L or HU	Pre-requisites: ARS 101; ARS 102
ARA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		
ARA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARA	460	Gallery Exhibitions	Practical experience in all phases of department gallery operations and preparation of gallery publications.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

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ARA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ARA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARB	101	Elementary Arabic I	Reading, writing, speaking, and understanding basic Arabic. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ARB	102	Elementary Arabic II	Reading, writing, speaking, and understanding basic Arabic. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ARB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Maximum 24 earned hours
ARB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	201	Intermediate Arabic I	Review of Arabic grammar with emphasis on the development of the skills of listening comprehension, reading, speaking, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ARB	202	Intermediate Arabic II	Review of Arabic grammar with emphasis on the development of the skills of listening comprehension, reading, speaking, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ARB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	311	Advanced Arabic Skills I	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	321	Arabic Conversation I	Emphasizes spoken Arabic and conversation skills. Simultaneously develops communicative skills, vocabulary, and cultural awareness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	331	Arabic/Islamic Culture and Literature	General introduction to the Middle East that synthesizes cultural, social, and literary information. Focuses on the experiences of ordinary Middle Eastern people to convey a grassroots sense of the Middle East.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	335	Arabic Culture and Islam	Develops awareness of Arabic culture and Islam. Covers a variety of cultural topics, including family, status of women, food, music, and Islam.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
ARB	341	Quran Text and Women	Addresses Muslim women scholars' argument that it is not the religion but the patriarchal interpretation of the Quran that have kept Muslim women oppressed.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	351	Classical Arabic Literature	Provides a survey in classical Arabic literature. Focuses on the development of classical Arabic poetry and prose since their interceptions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	411	Advanced Arabic Skills II	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	421	Arabic Conversation II	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ARB	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
ARB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
ARB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ARB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ARB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARD	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ARD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
ARE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARE	250	Teaching Inquiry in Art	Using inquiry to investigate artwork and to teach others to make and understand art. Introduces viewpoints for art understanding.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ARS 101, ARS 102, and 6 hours (2 classes) from ART 111, 112, 113 or 115 with a C or better or currently enrolled
ARE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	301	Studio Art and Human Development	Study of human development in studio art from early childhood to adult years.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	370	Teaching Visual Culture	Explores issues and applications of everyday aesthetics that contain powerful technological, social, and economic factors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	440	Disciplines of Art Education	Explorations in art education's disciplines, history, and people's artmaking development at diverse age levels and abilities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	482	Teaching Art Processes	Art traditions of the 20th century as a basis for studio and art history instruction. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Fine Arts Art student
ARE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	486	Art Education: Strategies and Applications	Implementation and evaluation of art instruction for K-12 population. Includes teaching of Saturday classes in the Children's Art Workshop. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-Requisites: Must be an Art student and must have completed ARE482 with a grade of B or greater or be currently enrolled
ARE	493	Honors Thesis		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Pre-requisites: Must be an Honors student
ARE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	496	Methods and Assessment of Learning in Art	Individual or group research on the assessment of art learning incorporating theory and practice. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be an Art student; ARE 250 with a C or better; Art portfolio completed
ARE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisites: Minimum 90 hours

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARE	510	Visual Culture Research	Research on instruction of everyday aesthetics and related issues that contain powerful technological, social, and economic factors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	520	Issues in Teaching Inquiry in Art	Issues in teaching and learning through inquiry about artworks using print and electronic reproductions and information.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	525	Research on Art Instruction	Research methods and assessment of learning in art. Pilot studies on the effects of instruction on learning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	530	Issues in Teaching Studio Art	Critical examination of issues concerning teaching multicultural art to different populations of students. Historical and philosophical foundations reviewed. Recommended to be taken before ARE 535.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	535	Research on Teaching Studio Art	Review of empirical and historical research methods, learning theory, and assessment of learning in studio art, including developmental studies and their limitations. Pilot studies on the effects of instruction upon learning. Recommended to be taken after ARE 530.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	540	Teaching Art in Cultural Contexts	Relationship of multicultural perspectives to teaching/learning art criticism, aesthetics, studio art, and art history.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Art	1-12		
ARE	610	Issues and Trends in Art Education	Doctoral-level investigation of historical and contemporary issues related to teaching and research in art education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	611	Curriculum Development in Art Education	Doctoral-level inquiry into the philosophical, psychological, and sociological foundations of curriculum development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Art	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ARP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ARP	451	Architecture Field Studies	Organized field study of architecture in specified national and international locations. Credit/no credit. May be repeated for credit with director approval.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ARP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Must be Architectural Studies BSD student; Must have completed ADE 322 with a grade of C or greater; Co-requisite: ADE 421
ARP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ARP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ARP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ARP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	SEM	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Must be Master of Architecture student
ARP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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ARP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Master of Architecture student
ARS	100	Introduction to Art	Understanding of art and its relationship to everyday life through painting, sculpture, architecture, and design. No credit for Art majors or non-Art majors who have completed ARS 101 or 102 or 300.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	201	Art of Asia	History of the art of the Asian cultures, with emphasis on China, Japan, and India. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	202	Art of Africa, Oceania, and the Americas	History of art of Africa, Oceania, and the New World. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	250	History of Photography	History of photography from the 19th century to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	250	History of Photography	History of photography from the 19th century to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	300	Introduction to Art	Course content same as ARS 100 but requires a higher level of accomplishment and comprehension. No credit for Art majors or non-Art majors who have completed ARS 100. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	300	Introduction to Art	Course content same as ARS 100 but requires a higher level of accomplishment and comprehension. No credit for Art majors or non-Art majors who have completed ARS 100. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	302	Art/ Africa,Oceania & Americas	Issues in the art of Africa, Oceania, and the Americas related to ritual, gender, transformation of tradition, and encounters with Europeans.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	Pre-requisite: ENG 102, 105, or 108
ARS	302	Art/ Africa,Oceania & Americas	Issues in the art of Africa, Oceania, and the Americas related to ritual, gender, transformation of tradition, and encounters with Europeans.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	310	The Renaissance in Tuscany	Course taught in Florence, Italy. History of arts in Tuscany with focus on city of Florence from 14th through 16th centuries. Completion of ARS 101 and 102 suggested.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARS	340	Art in America	American art from colonial times through the Second World War. Not available to students who have completed ARS 542.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	362	Pre-Columbian Art I	Architecture, sculpture, ceramics, painting, and other arts of Mesoamerica before European contact. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	400	History of Printmaking	History of the print as an art form and its relation to other modes and forms of artistic expression.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	402	Art of Ancient Egypt	Aesthetic, philosophical, and cultural basis of Egyptian art from pre-Dynastic period through New Kingdom. Emphasis on sculpture and architectural monuments. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	404	Greek Art	History of art, architecture of Aegean civilizations (Cycladic, Minoan, Mycenaean) and of Greece to end of Hellenistic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	406	Roman Art	Art and architecture of Etruria, the Roman Republic, and the Roman Empire.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	410	Early Christian and Byzantine Art	Art and architecture of the early church and the Byzantine Empire from the 4th to the 15th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	412	Early Medieval Art	Painting, sculpture, architecture, and the minor arts from Migration, Carolingian, and Ottonian periods considered within religious, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	414	Romanesque Art	Sculpture, painting, architecture, and minor arts in western Europe, ca. 1030-1200, considered within religious, economic, and social contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	416	Gothic Art	Painting, sculpture, and architecture in western Europe during the Gothic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	417	Late Gothic Art in Central Europe	Sculpture, painting, and architecture of the late-Gothic style, ca. 1350-1525, considered within religious, social, economic, and political contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	418	German Renaissance and Reformation Art	Graphics, painting, sculpture, and architecture, ca. 1450-1550. Reformation themes and Renaissance style considered within religious, political, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	422	Italian High Renaissance Art and Mannerism	History of Italian art during the 16th century, including the achievements and influence of Leonardo da Vinci, Raphael, and Michelangelo.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	424	Italian Baroque Art	Italian painting, sculpture, and architecture of the 17th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	426	Art of the 17th Century in Northern Europe	Baroque painting, sculpture, and architecture in Flanders, the Netherlands, France, and England.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	428	Art of the 18th Century	History of painting, sculpture, architecture, graphic arts, and the decorative arts from 1700 to the French Revolution (1789).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	430	Art of Spain and its Colonies	Architecture, painting, and sculpture from 1500 to 1800. Colonial focus on central Mexico and the American Southwest.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	432	19th-Century French Art and Culture	History of painting, graphic arts, sculpture, and architecture, 1800 to 1900 in France in its political, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	434	Art and Visual Culture of 19th Century	History of European art (all media) from French Revolution to Paris World Fair of 1900.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	435	The Pre-Raphaelites	Visual and literary works by Victorian Pre-Raphaelites as works in themselves and through relations between images and texts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-or Co-requisites:ARS 102, ENG 221, or HST 202 (with D or better if completed)
ARS	436	The Artist, War, and Revolution (Versailles to Vietnam)	Critical study of artistic responses to war and revolution in Europe and United States from French Revolution to Vietnam conflict.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	437	British Culture and Empire	Examines British imperial culture in art and literature, 1870-1914, and postcolonial theory.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:A grade of B or better in one course in ARS, ENG, or HST at 200 level or higher
ARS	438	Art of the 20th Century I	Developments and directions in art between 1900 and World War II.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101 and ARS 102 with D or better or currently enrolled
ARS	439	Art of the 20th Century II	Art since World War II, with consideration of new concepts and experimentation with media and modes of presentation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101, ARS 102 and ARS 438 with D or better or currently enrolled
ARS	442	Critical Issues in American Painting	Explores themes and social issues in American art with a critical study of American painting from the 18th century to 1850.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	451	20th Century Photography	Personalities, processes, images, and ideas in photography from 1914 to present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	458	Critical Theories in the Visual Arts	Examines current critical theories through their application to all visual arts. May include new historicism, Marxism, deconstruction, post-structuralism, semiotics, Lacanian psychoanalysis, feminism, postmodernism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	459	Writing Art Criticism	Traditional and contemporary approaches to the criticism of art. Students write critical essays. Latter half of the semester stresses the criticism of contemporary art in various media.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ARS 458
ARS	460	Art Now	Critical overview of major issues and controversies of the last 10 years within the global, national, and local art scene.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ARS 439
ARS	465	Native North American Art	Native American art forms of the United States and Canada from prehistoric times to the present. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better

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ARS	466	Native American Art of the Southwest	American Indian art in the southwestern states from its origins to the present day. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	
ARS	468	Art of the Arctic and Northwest Coast	Art associated with ceremony, shamanism, and daily life in the Arctic and on the Northwest Coast. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	469	Mexican Art	Art of Mexico and related Central American cultures from the prehistoric to the contemporary schools. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	469	Mexican Art	Art of Mexico and related Central American cultures from the prehistoric to the contemporary schools. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	472	Art of China	Study of major forms in Chinese art: ritual bronze, sculpture, ceramic, calligraphy, painting, and architecture. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	473	Art of Japan	Japanese art from the Joman period to the present. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	475	Chinese Painting	From Ku K'ai-chin to Ch'i Pai-shih. Major artists, styles, and movements in Chinese painting. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	480	Research Methods	Methodology and resource material for art historical research. Techniques of scholarly and critical writing and evaluation of bibliographic sources.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	485	Women in the Visual Arts	Historical study of art by women in various media; related social, political, educational issues; representation of women in art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ARS	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Pre-requisites: Must be an Honors student
ARS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisite: Minimum 90 hours
ARS	501	Methodologies and Art History	History of the discipline and an exploration of various methodologies, critical theory, and bibliographies used by art historians.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	502	Critical Studies in Egyptian Art	Egyptian art from pre-Dynastic to New Kingdom periods. Focus on aesthetic, philosophical, and cultural contexts. Research paper and readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	504	Critical Approaches to Greek Art	Art and architecture of Aegean civilizations (Cycladic, Minoan, Mycenaean) and of Greece to end of Hellenistic period. Research paper and readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:Must be a Graduate Student
ARS	506	Critical Studies in Roman Art	Art and architecture of Etruria, the Roman Republic, and the Roman Empire. Research paper and/or supplemental readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	514	Critical Approaches to Romanesque Art	Sculpture, painting, architecture, and the minor arts in western Europe, ca. 1030-1200, considered within religious, economic, and social contexts. Requires research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	516	Critical Approaches to Gothic Art	Architecture, sculpture, painting, and the minor arts in western Europe, ca. 1150-1350, considered within religious, social, and economic contexts. Requires research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	517	Critical Approaches to Late Gothic Art	Art of the late-Gothic style, ca. 1350-1525, considered within religious, social, economic, and political contexts. Requires research or reading project.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	522	Sixteenth-Century Italian Art	Critical study of painting, sculpture, and architecture in 16th-century Italy in its religious and historical context.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	528	Eighteenth-Century Art in Europe	Critical study of European art from the late Baroque to the early years of Neoclassicism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	530	Art of Spain and New Spain	Critical study of architecture, painting, and sculpture from 1500 to 1800.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student.Students who have credit for ARS 430, may not enroll in ARS5430
ARS	532	Art, Politics, and Patronage, 1770-1850	Critical analyses of political events in Europe. Examines issues of patronage, art as propaganda. Impact of war and revolution on visual arts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	534	Studies in Modern European Art, 1850-1914	Critical study of visual arts using primary source material from mid-19th century to WWI within philosophical, socioeconomic, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student

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ARS	542	Critical Issues in American Painting	Explores themes and social issues in American art with a critical study of American painting from the 18th century to 1850.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	562	Art of Ancient Mesoamerica	Critical study of art and architecture of Mexico and Maya areas before Spanish contact.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	565	Native Art of North America	Critical examination of Native American art within culture, prehistory to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	574	Studies in Japanese Art	Critical examination of the nature and history of Japanese art, its rich heritage and its indebtedness to foreign sources.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	575	Approaches to Chinese Painting	Critical history of Chinese painting from Eastern Chou to 1911. Emphasis on masters, regional developments, and conceptual underpinnings.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	585	Women in the Visual Arts	Historical study of art by women in various media; related social, political, educational issues; representation of women in art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Art	1-12		
ARS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		
ARS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-15		

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ARS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		
ARS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Art	1-15		
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	102-W	Art of the Western World II	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARS	438-W	Art of the 20th Century I	Developments and directions in art between 1900 and World War II.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ARS	439	Art of the 20th Century II	Art since World War II, with consideration of new concepts and experimentation with media and modes of presentation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
ARS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ARS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	453	Experimental Printmaking	Alternative techniques and methods to traditional approaches to printmaking. May be repeated for credit. Fee.	N	STO	Y	OPT	Herberger College of the Arts	School of Art	3.		
ART	111	Drawing I	Fundamental, technical, and perceptual skills using common drawing media and their application to pictorial organization. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	112	2-D Design	Fundamentals of pictorial design. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	112	2-D Design	Fundamentals of pictorial design. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	113	Color	Principles of color theory as related to the visual arts. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	113	Color	Principles of color theory as related to the visual arts. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:Must be Pre-Art and be in one of 25 ART plans.
ART	115	3-D Design	Fundamentals of 3-D form. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	115	3-D Design	Fundamentals of 3-D form. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:Must be Pre-Art and be in one of 25 ART plans.
ART	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ART	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	201	Photography I	Development of skills and techniques of black and white photography. Emphasis on camera work and darkroom procedures. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Co-requisite: ART 202
ART	202	Photography I Lab	fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	0.		Co-requisite: ART 201
ART	204	Photography II	Photography as an art medium with additional exploration into personal photographic aesthetics. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Art students; ART 101 or ART 201 with a C or greater or be currently enrolled

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ART	211	Drawing II	Continued development of technical and perceptual skills. Emphasizes materials and pictorial content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Art student; ART 111and ART 112 with a C or better or currently enrolled
ART	214	Life Drawing I	Development of skill and expressiveness in drawing the basic form, construction, and gesture from the human figure. Lab. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 111and ART 112 with a C or better or currently enrolled
ART	223	Painting I	Fundamental concepts and materials of traditional and experimental painting media. Emphasizes preparation of painting supports, composition, and color. Lab. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; ART 111and ART 113 with a C or better or currently enrolled
ART	227	Watercolor I	Fundamental concepts, materials, and techniques of watercolor. Emphasizes problem solving, basic skills, composition, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 111and ART 113 with a C or better or currently enrolled
ART	231	Sculpture I	Explores sculptural forms through concepts related to basic materials. Focus on studio production, safety, aesthetic criticism, and history of sculpture. 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; ART 111 and ART 115 with C or better; Pre- or Corequisite: ARA 110 (with C or better if completed)
ART	253	Introduction to Printmaking	Introduces basic monotype, intaglio, relief, and related techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre- requisites:Art students; ART 113 with C or better or currently enrolled
ART	261	Ceramic Survey	Handforming methods, throwing on the wheel, decorative processes, and glaze application. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; ART 112 and ART 115 with C or better or currently enrolled
ART	272	Metalworking I: Introduction	Emphasizes metal fabrication. Basic techniques of cutting, piercing, forging, soldering, and forming. Not open to seniors. 6 hours a week. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; not open to Seniors; ART 112 and ART 115 with C or better or currently enrolled
ART	274	Wood I	Fundamental woodworking techniques to produce creative functional 3-D objects. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	276	Fibers I	Explores traditional and contemporary materials and basic techniques related to fibers. Embroidery, feltmaking, dyeing, block printing, plaiting, 3-D structures. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; not open to Seniors; ART 112 and ART 115 with C or better or be currently enrolled
ART	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Art students
ART	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	304	Advanced Photography	Interpretation and manipulation of light as a tool in the performance of expressive photography. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; Completed portfolio milestone (if required); ART 204 and (ART 101 or ART 201) with C or better
ART	305	Color Photography I	Applies color transparencies and prints to photographic art. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; Must have completed the portfolio milestone (if required); ART 204 and ART 101 or ART 201 with a C or better
ART	308	Digital Photographic Images I	Scanning, manipulation, refinement, and compositing of photographic images on the computer. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; Completed portfolio milestone (if required); ART 204 and (ART 101 or ART 201) with C or better
ART	311	Drawing III	Emphasizes composition, exploration of drawing media. 6 hours a week. Requires acceptance into the appropriate professional program or instructor approval. Contact your academic advisor in the School of Art for more information.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 211 with C or better
ART	311	Drawing III	Emphasizes composition, exploration of drawing media. 6 hours a week.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	314	Life Drawing II	Drawing from the model with greater reference to structural, graphic, and compositional concerns. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student or completion of portfolio milestone; ART 214 with C or better
ART	314	Life Drawing II	Drawing from the model with greater reference to structural, graphic, and compositional concerns. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be Fine Arts student AND completed ART214 with a C or greater or be currently enrolled
ART	323	Painting II	Development of competency in skills and expression. Assigned problems involve light, space, color, form, and content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student with portfolio; ART 223 with C or better
ART	325	Figure Painting	The human figure clothed and nude as the subject for painting in selected media.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requistes:ART 314 and ART 323 with a grade of D or better
ART	327	Watercolor II	Explorations of personal expression in watercolor. Continued development of watercolor skills using traditional and experimental materials and techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	327	Watercolor II	Explorations of personal expression in watercolor. Continued development of watercolor skills using traditional and experimental materials and techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 227 with C or better
ART	331	Sculpture II	Continuation of ART 231 with an emphasis on metal fabrication as an expressive sculptural process. Techniques in welding, cutting and bending of metals and their aesthetics. 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student with portfolio completed; Pre- or Co-requisite: ARA 110 (with C or better if completed)
ART	332	Sculpture III	Explores diverse media with a focus on mold-making processes. Development of the sculpture portfolio. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART231 AND ART331 AND be an ART student
ART	333	Foundry Casting Methods	Fine art and techniques of metal casting: mold making, foundry safety, finishing techniques, application of patinas, and history of casting. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART231, ART331 and ART332 or be currently enrolled in ART332 and must be an Art student
ART	345	Visualization and Prototyping I	Studio/seminar introduces concepts of computer visualization, modeling, and rapid prototyping in an interdisciplinary manner.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Digital Art OR Intermedia student
ART	346	3-D Computer Imaging and Animation	3-D modeling and animation. Emphasizes concepts and fine arts applications. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.	CS	Prerequisites: Must be an ART student
ART	348	Animation Motion Studies	Principles and applications of 3-D animation for fine arts. Emphasizes animation techniques for expressive effects. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART346 or be currently enrolled in ART346 AND be an ART student

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ART	351	Intaglio I	Introduces concepts and techniques of intaglio processes, including non-acid and acid techniques such as drypoint, line etch, aquatint, photo etching; introduces multiple plate printing ala poupee wiping, chine colle, and basic color. Idea-generating exercises include visual signifiers of identity, democratic multiple, time and space, the disembodied gaze, and reconsidering beauty. Studio 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): ART 253 with C or better
ART	352	Lithography I	Monochromatic and color planographic printmaking utilizing stone and aluminum plate processes. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 with C or better
ART	354	Screen Printing I	Introduces paper, direct, and photographic stencil techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART253 AND be an ART student
ART	355	Photo Process for Printmaking I	Introduces photographic principles and skills for photomechanical printmaking processes, including photosilkscreen, photolitho, and photoetching. 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 with C or better
ART	360	Ceramic Throwing	Design analysis and production of functional pottery. Emphasis on throwing techniques, surface enrichment, and glaze application. 6 hours a week. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 261 with C or better
ART	363	Ceramic Clay-Glaze		N	LEC	N	CNV	Herberger Inst Design & Arts	School of Art	3.		
ART	364	Ceramic Handbuilding I	Search for form using handbuilding techniques. Kiln firing and related problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 with C or better
ART	365	Ceramic Handbuilding II	Continuation of ART 364 with an additional focus on large-scale works, surface treatments, and glaze decoration with related kiln firing applications. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 and ART 364 with C or better
ART	372	Metalworking II	Metal fabrication techniques including surface embellishment. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 with C or better
ART	373	Metalworking III	Compression, die, and stretch forming as applied to hollow form construction. Hot and cold forging techniques as applied to smithing. 6 hours a week. fee	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 with C or better
ART	374	Wood II	Individual and directed problems in wood related to the production of unique functional art objects. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 274 with C or better
ART	376	Woven Structures I	Explores weaver- and loom-controlled structures with an emphasis on formal issues, historic precedence, and contemporary investigations. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 276 with C or better
ART	377	Surface Design	Application of dyes and pigments on cloth exploring techniques, formal issues, and content. Cyanotype, monoprinting, painting on silk, resists, stenciling. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 276 with C or better
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Prerequisites: Must be an ART student
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	401	Nonsilver Photography	Recognition of the inherent characteristics of nonsilver processes and their use in communicating ideas. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:ART 304 with a grade of D or better
ART	403	Senior Photographic Projects	Technical and philosophical refinement of personal aesthetic with various photographic media. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 204 and (ART 101 or ART 201) with C or better
ART	404	Portraiture Photography	Photographing people. Critical discussions and slide lectures on issues in portraiture. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 204 and (ART 101 or ART 201) with C or better
ART	406	Photo Techniques	Camera and darkroom techniques with emphasis on creative control of the black and white print. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student and you must have a C or greater in ART204 AND ART101 or ART201
ART	407	View Camera	View camera and darkroom techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student and you must have a C or greater in ART204 AND ART101 or ART201
ART	408	Digital Photographic Images II	Develops personal aesthetic in digital photography. May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:ART 308 with a grade of D or better
ART	409	Photographic Exhibition	Care of photographic prints, print presentation, and exhibition. Practical experience in gallery operations. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	410	Landscape Photography	Photographing landscapes. Critical discussion and presentations on issues in landscape photography. May be repeated for credit. 6 hours a week.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	411	Drawing IV	Visual and intellectual concepts through problem solving and independent study. Emphasis on the individual creative statement. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 211 and ART 311 with C or better
ART	414	Life Drawing III	Various media and techniques on an advanced level. The human figure as an expressive vehicle in various contexts. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ART 314
ART	414	Life Drawing III	Various media and techniques on an advanced level. The human figure as an expressive vehicle in various contexts. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ART 314
ART	415	Art Anatomy	Study of human anatomical structures as applied to the practice of figure-oriented art. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	4.		Prerequisites: Art student; ART 214 with C or better
ART	423	Painting III	May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 223 and ART 323 with C or better
ART	425	Advanced Figure Painting	The human figure clothed and nude as the subject for painting in selected media. May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 223, ART 323 and ART 314 with C or better

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ART	427	Advanced Watermedia	Continuation of ART 327. Advanced techniques, concepts, and methods with watercolor and other water-based media on paper. 6 hours a week. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	427	Advanced Watermedia	Continuation of ART 327. Advanced techniques, concepts, and methods with watercolor and other water-based media on paper. 6 hours a week. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be Fine Arts student in professional program; must have completed ART227 with a C or greater; completed ART327 with a C or greater or be currently enrolled
ART	431	Special Problems in Sculpture	Development of a personal approach to sculpture. Emphasis on form, individual problems, and related color technology. Professional practices and presentation. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231, ART 331 and 332 with C or better
ART	432	Neon Sculpture	Techniques for creating neon in an art context. Glass tube bending and fabrication. Construction of artworks utilizing light-generating gasses. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	435	Foundry Research Methods	Research in foundry techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	436	Architectural Sculpture	Sculptural concepts as related to architecture and other man-made environments. Scale drawing, models, and relief sculpture. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231, ART 331 and ART 332 with C or better
ART	437	Film Animation	Production of short 16mm films that feature articulated sculptural objects, models, dolls, puppets, and graphics through the use of single-frame filming techniques. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	438	Experimental Systems in Sculpture	Simple electrical and mechanical systems that can be utilized in the context of studio art and installations. Requires active production of studio artworks. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	439	Intermedia Studio	Exploring visual effects by combining traditional and nontraditional methods, techniques, and concepts. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must be an ART student
ART	440	New Media Concepts	Continued experiments with new media and interdisciplinary concerns in art. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Corequisite(s): ART 441
ART	441	Video Art	Utilizing video and audio equipment essential to the production of broadcast quality video art. 2 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1.		Pre-requisite: Art portfolio completed; Co-requisite ART 440
ART	442	Folk/Outsider Art	Explores ideas, attitudes, and art of contemporary self-taught, visionary, and outsider artists. Research and studio practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must be an ART student
ART	443	Intermedia Performance	Experimental, conceptual, and interdisciplinary studio art with emphasis on performance and new media practices. May be repeated once for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Art student
ART	449	Computer Animation and Video	Integrates 3-D fine arts animation with video and compositing. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 346 and ART 348 with C or better
ART	450	Computer Animation and Audio	Integrates audio with 3-D animation for fine arts applications. Includes compositing and effects. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 346, ART 348 and ART 449 with C or better
ART	451	Advanced Intaglio	Gives students the opportunity to further develop their skills with intaglio printmaking techniques. Primary areas of research include image development, multiple plate and color printing. Additional techniques include lift grounds, spit bite aquatint, white ground, and viscosity printing. Develops sharper critical responses, both aesthetically and conceptually, to their own work, as well as the work of other artists. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART 351 with C or better or currently enrolled
ART	452	Advanced Lithography	Continuation of ART 352. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student or Completed the portfolio milestone; ART 253 and ART 352 with C or better
ART	454	Advanced Screen Printing	Continuation of ART 354. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 and ART 354 with C or better
ART	455	Advanced Photo Processes for Printmaking	Continued study of photomechanical techniques and applications to printmaking or photographic processes. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student or Completed the portfolio milestone; ART 253 and ART 355 with C or better
ART	456	Fine Printing and Bookmaking I	Letterpress printing and typography as fine art. Study of history, alphabets, mechanics of hand typesetting, presswork, and various forms of printed matter. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART253
ART	457	Fine Printing and Bookmaking II	Continuation of ART 456. Bookbinding, book design and printing, advanced typography, theory, and presswork. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 and ART 456 with C or better
ART	458	Papermaking	History, theory, demonstrations, sheet forming, collage treatments, and 3-D approaches. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART253
ART	459	Monoprinting	Nonmultiple printed image using a variety of technical approaches. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART student or Completed the portfolio milestone; ART 253 with C or better
ART	460	Ceramic Clay	Research into various clay body formulations, local natural materials, slip glazes, and engobes. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Art student AND you must have a C or greater in ART261 AND ART360 AND ART364(or be currently enrolled in ART360 & ART364) AND
ART	463	Ceramic Glaze	Glaze calculation and formulation using various glaze colors and surfaces. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 261 and ART460 with C or better
ART	466	Special Problems in Ceramics	Emphasis on personal expression within structure of seminars, critiques, and studio work. Professional methods of presentation/documentation of work. 6 hours a week. May be repeated for credit. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 and ART 364 with C or better

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ART	470	Computer Animation Portfolio	Production of videotape and CD 3-D animation portfolios for fine arts and industry integrating animation, video, and audio. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.	CS	Prerequisites: You must be an ART student AND you must have a C or greater in ART346 AND ART348 AND ART449(or be currently enrolled in ART348& ART449) AND
ART	472	Metalworking IV	Forging, forming, and surface metalworking techniques with a focus on personal statements and craftsmanship. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 and ART 372 with C or better
ART	473	Metalworking: Special Problems	Special problems in metalworking related to techniques and individual directions. 6 hours a week. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 and ART 373 with C or better
ART	474	Advanced Wood	Extended experience and advanced techniques in the use of wood to create functional works of art. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 274 and ART 374 with C or better
ART	476	Woven Structures II	Emphasizes personal expressions and continues technical exploration in woven structures. May be repeated for credit. 6 hours a week. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 276 and ART 376 with C or better
ART	477	Printed Textiles	Techniques for screen printing on fabric exploring pattern as a compositional element. Various stencil methods including photographic processes. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 276 and ART 377 with C or better
ART	478	Advanced Surface Design	Emphasis on personal expression with advanced problems in stitch resist, arashi shibori, transfers, indigo, vat and disperse dyes, and pigments. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART276 AND ART377 AND ART447
ART	479	3-D Fibers	Explores traditional and nontraditional 3-D fiber techniques and media. Discussion, research, and critiques augment technical demonstrations. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisite: Art student
ART	492	Honors Directed Study		N	STO	N	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ART	493	Honors Thesis		N	STO	N	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Prerequisites: You must be an Honors student
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Prerequisites: Must be an ART student
ART	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisite: Art student
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		
ART	530	Digital Compositing	Fine arts digital compositing of computer animation, video, and video editing of composites with audio. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	540	Digital Motion Studies	Fine arts digital motion studies using computer animation and video. Studio. Fee. Prerequisite: ART 346 or instructor approval. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	551	Advanced Intaglio	Gives students the opportunity to further develop their skills with intaglio printmaking techniques. Primary areas of research include image development, multiple plate and color printing. Additional techniques include lift grounds, spit bite aquatint, white ground, and viscosity printing. Develops sharper critical responses, both aesthetically and conceptually, to their own work, as well as the work of other artists. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Your total Earned Hours must be greater than or equal to 108 AND Academic Level must be Senior or Post Bac Undergrad OR you must be a Non Degree Grad or in any Grad program
ART	582	Art Research	Independent study research using classroom facilities and supplies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ART	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ART	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Prerequisites: Your total Earned Hours must be greater than or equal to 108 AND Academic Level must be Senior or Post Bac Undergrad OR you must be a Non Degree Grad or in any Grad program
ART	621	Studio Problems	Advanced study. 6 hours a week each section. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ART	682	MFA Exhibition Research	MFA exhibition practicum using classroom facilities and supplies. Can be used in place of ART 680.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	1-6		
ART	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ART	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	111	Drawing I	Fundamental, technical, and perceptual skills using common drawing media and their application to pictorial organization. 6 hours a week.	N	STO	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ART	211	Drawing II	Continued development of technical and perceptual skills. Emphasizes materials and pictorial content. 6 hours a week.	N	STO	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ART	214	Life Drawing I	Development of skill and expressiveness in drawing the basic form, construction, and gesture from the human figure. Lab. 6 hours a week. fee	N	STO	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ART	223	Painting I	Fundamental concepts and materials of traditional and experimental painting media. Emphasizes preparation of painting supports, composition, and color. Lab. 6 hours a week.	N	STO	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ART	227	Watercolor I	Fundamental concepts, materials, and techniques of watercolor. Emphasizes problem solving, basic skills, composition, and color. 6 hours a week. fee	N	STO	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Art student; ART 111and ART 113 with a C or better or currently enrolled
ART	311	Drawing III	Emphasizes composition, exploration of drawing media. 6 hours a week. Requires acceptance into the appropriate professional program or instructor approval. Contact your academic advisor in the School of Art for more information.	N	STO	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must be Fine Arts student in professional program AND completed ART211 with a C or greater or be currently enrolled.
ART	411	Drawing IV	Visual and intellectual concepts through problem solving and independent study. Emphasis on the individual creative statement. 6 hours a week.	N	STO	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: must have completed ART 211 with a C or greater and be enrolled in one of a list of Art plans/majors and have completed ART 311 with a C or greater or be currently enrolled
AS	150	Animal Husbandry		Y	LEC	Y	CNV	Ira A. Fulton Engineering	W. P. Carey School of Business	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASB	100	Introduction to Global Health	Current global health crises, challenges; tools for describing health and disease; ecological, cultural, social, historical, political-economic factors; comparative health systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
ASB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	202	Ethnic Relations/U.S.	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H & C	
ASB	210	Sex, Marriage, and Evolution	Examines the sexual nature and behavior of humans from both a biological and an anthropological point of view.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G	
ASB	222	Buried Cities and Lost Tribes	Archaeology through its most important discoveries: human origins, Pompeii, King Tut, the Holy Land, Southwest Indians, and methods of field archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	223	Buried Civilizations of the Americas	Archaeology through examination of several ancient civilizations of Meso-, South, and North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	230	Beginning Culture Theory	Bridges ASB 102 and upper-division courses; introduces cultural theory and fosters independent thinking, critical analysis, communication, and adaptability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	231	Arch Field Methods	Excavation of archaeological sites and recording and interpretation of data. Includes local field experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	
ASB	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G	
ASB	252	Anthropology of Sports	Cross-cultural examination of symbolic and social dimensions of sports past and present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
ASB	301	Global History of Health	Examines disease and health transitions in broadest context of human history, from primate ancestors to hunter-gatherers, to transcontinental contact, colonialism, industrialization, urbanization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit in SSH 301, you may not enroll in ASB 301
ASB	302	Ethnographic Field Study in Mexico	Fieldwork study of cultural adaptation, Mexican culture, United States-Mexican cultural conflict, ethnographic research methods, and local culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	
ASB	310	Precolonial Africa	Surveys social, economic, political, cultural, and economic institutions and civilizations of Africa before European colonialism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	311	Principles of Social Anthropology	Comparative analysis of domestic groups and economic and political organizations in primitive and peasant societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	314	Comparative Religion	Origins, elements, forms, and symbolism of religion; a comparative survey of religious beliefs and ceremonies; the place of religion in the total culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	319	The North American Indian	Archaeology, ethnology, and linguistic relationship of the Indians of North America. Does not include Middle America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	320	Indians of Arizona	Traditional cultures and the development and nature of contemporary political, economic, and educational conditions among Arizona Indians.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	321	Indians of the Southwest	Cultures of the contemporary Indians of the southwestern United States and their historic antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & H & C	
ASB	322	Peoples of Mesoamerica	Indigenous, mestizo, and national cultures, rural and urban peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	324	Peoples of the Pacific	Peoples and cultures of Oceania focusing particularly on societies of Melanesia, Micronesia, and Polynesia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	325	Peoples of Southeast Asia	Cultural-ecological perspective on the peoples of mainland and insular Southeast Asia. Subsistence modes, social organization, and the impact of modernization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	326	Human Impacts on Ancient Environments	World survey of successful and unsuccessful ancient societies and their impacts on the environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASB	327	Action Anthropology	Explores contemporary issues and problem solving in Cuna, Micronesia, Mayan, and U.S. Latino communities, through applied anthropology and community initiatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	330	Principles of Archaeology	Methods and theories for reconstructing and explaining the lifeways of prehistoric peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	335	Prehistory /Southwest	Anthropological understandings of major cultural processes and events in the prehistory of the American Southwest using evidence from archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H & C	
ASB	337	Pre-Hispanic Civilization of Middle America	Preconquest cultures and civilizations of Mexico. The Aztecs, Mayas, and their predecessors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	338	Archaeology of North America	Origin, spread, and development of the prehistoric Indians of North America up to the historic tribes. Does not include the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	
ASB	350	Anthropology and Art	Art forms of people in relationship to their social and cultural setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	351	Psychological Anthropology	Approaches to the interrelations between the personality system and the sociocultural environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	(HU or SB) & G	
ASB	355	Shamanism, Healing, and Consciousness	World views, practices, and roles of shamans and traditional and contemporary healers; explanatory biopsychological models of consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	HU or SB	
ASB	361	Pleistocene Archaeology	Biosocial evolution in the Pleistocene, emphasizing technological achievements and the relationship between technology and environment in western Europe, sub-Saharan Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	H	
ASB	362	The Neolithic Revolution and its Consequences	Surveys models for the appearance of food production in the Old World, and its consequences for emergent social complexity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	H	
ASB	366	African Archaeology: Precolonial Urban Culture	Overview of African civilization from the last 10,000 years up to 1850 via archaeological, documentary, and oral data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G & H	
ASB	368	Prehistoric and Historic Hunter-Gatherers	Studies known hunting and gathering societies with the goal of developing approaches to understanding past hunting and gathering societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	400	Cultural Factors in International Business	Anthropological perspectives on international business relations; applied principles of cross-cultural communication and management; regional approaches to culture and business.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	402	Visual Anthropology	Explores visual anthropology as a method for social documentation, and as a way to interpret cultural ways of seeing. Brings together anthropology, fine art, and art history students to exchange ideas about how we create, interpret, and communicate visual meanings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	410	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	
ASB	412	History of Anthropology	Historical treatment of the development of the culture concept and its expression in the chief theoretical trends in anthropology between 1860 and 1950.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L or SB	
ASB	416	Economic Anthropology	Economic behavior and the economy in preindustrial societies; description and classification of exchange systems; relations among production, exchange systems, and other societal subsystems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L or SB	
ASB	417	Political Anthropology	Comparative examination of the forms and processes of political organization and activity in primitive, peasant, and complex societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	
ASB	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	430	Social Simulation	Introduces computer simulation and agent-based modeling to study social systems. Credit is allowed for only ASB 430 or CPI 430.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	CS	
ASB	443	Cross-Cultural Studies in Global Health	Direct investigations of society, ecology, and health in international settings.	N	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-6	SB & G	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit for SSH 403, you may not enroll in ASB 443
ASB	452	Community Partnerships for Global Health	Supervised community-based activities relevant to a global perspective on contemporary U.S. health. Addresses community-identified issues using appropriate methodologies.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9	SB	Pre-requisites:SSH 400 or ASB 440 with a grade of D or better, or currently enrolled. If you have credit for SSH 402, you may not sign up for ASB 452
ASB	455	Senior Seminar in Global Health	Students create health solutions, integrating theoretical, methodological, ethical, and experiential learning related to the global health major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	462	Medical Anthropology: Culture and Health	Role of culture in health, illness, and curing; health status, provider relations, and indigenous healing practices in United States ethnic groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	C	

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ASB	463	Political Ecology of the Border	Using a political ecology approach, focuses on the creation of border communities of Southwest North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	464	The Ethnography of Mexican Border Rural Settings	Focuses on the internal characteristics of a selected Mexican rural border towns and villages; analyzes the dynamics of development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	466	Peoples and Cultures of Africa	Surveys African peoples and their cultures, external contact, and changes. Meets non-Western requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G & H	
ASB	471	Introduction to Museums	History, philosophy, and current status of museums. Explores collecting, preservation, exhibition, education, and research activities in different types of museums. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	
ASB	480	Principles of Linguistics	Descriptive and historical linguistics. Surveys theories of human language, emphasizing synchronic linguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	481	Language and Culture	Applies linguistic theories and findings to nonlinguistic aspects of culture; language change; psycholinguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	483	Sociolinguistics and the Ethnography of Communication	Relationships between linguistic and social categories; functional analysis of language use, maintenance, and diversity; interaction between verbal and nonverbal communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	485	U.S.-Mexico Border in Comparative Perspective	Explores the multicultural and social dimensions of communities along the U.S.-Mexico border, emphasizing social organization, migration, culture, and frontier ideology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	489	Doing Research in Anthropology	Research process learned through critical evaluation of literature, hands-on analysis and interpretation of data, and scientific writing Rotating topics. May be repeated for credit.	N	LAB	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Must be an Honors student
ASB	493	Honors Thesis	Honors Thesis	N	RSC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6	L	Pre-requisites: Must be an Honors student
ASB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		Pre-requisites: Must be an Honors student
ASB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
ASB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	DIS	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
ASB	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	501	Applied Medical Anthropology	Overview of anthropology's applications in medicine and its adaptations to U.S. ethnic populations. Requires research project in medical setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	502	Health of Ethnic Minorities	Prevalence of illness, risk factors, health ecology, and medical and indigenous treatments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	503	Advanced Medical Anthropology	Theory in medical anthropology and cross-cultural studies that illustrate particular theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	504	Ethnic Relations	Structural processes of intergroup relations, methods for investigating psychocultural dimensions of ethnicity with focus upon U.S. ethnic groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	506	Gender, Emotions, and Culture	Relationships among gender and emotion across cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	508	Colonial Rule and the African Experience	Impact of European colonial rule on the shaping of African consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	510	Health: Social and Biocultural Theories	Comparative and critical approaches to complexities of health, drawn from anthropology and related fields Focuses on theories that address how social and cultural factors shape human health.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	511	Ethics in Health Social Science Research	Ethics and social justice issues in community-based health research relevant to health social science, including informed consent, community involvement, control, advocacy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASB	512	Social Science Applications in Community Health	Supervised community-based activities relevant to improvement of health through application of social science theory.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9		
ASB	513	Research Design and Proposal Writing in Health Social Science	Research design, piloting, and proposal writing for social scientists conducting health research.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	525	Introduction to Material Culture	Considers how objects embody social relationships and therefore cultural meanings. Seminar explores theories that give insight into social processes such as exchange, consumption, and identity.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	529	Culture and Political Economy	Origin and spread of Western capitalism and its impact on non-Western societies. Utilizes ethnographic and historical case studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	530	Ecological Anthropology	Relations among the population dynamics, social organization, culture, and environment of human populations, with special emphasis on hunter-gatherers and extensive agriculturalists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	531	Anthropology of Development	Theories of development and the human and environmental consequences of development, with particular emphasis on rural Southeast Asia.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	532	Graduate Field Anthropology	Independent research on a specific anthropological problem to be selected by the student in consultation with the staff. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	2-8		
ASB	533	Sustainable Urban Dynamics.	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites:If fyou have received credit for SOS 532, you may not enroll in ASB 533
ASB	536	Ethnohistory of Mesoamerica	Indigenous societies of southern Mexico and Guatemala at Spanish contact and their postconquest transformation. Emphasis on the Aztec Empire.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	537	Topics in Mesoamerican Archaeology	Explores changing organization of pre-Columbian civilizations in Mesoamerica through interpretive issues, such as regional analysis, chiefdoms, urbanism, and exchange.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	540	Scholarly Inquiry in Anthropology	Basic issues and concepts in anthropology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	541	Theory in Sociocultural Anthropology	Basic issues and concepts in sociocultural anthropology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	542	Archaeology of Small-Scale Societies	Approaches to small-scale (i.e., hunter-gatherer and tribal) societies, archaeological method and theory, ethnography, models of human and cultural evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	543	Method and Theory of Archaeology II	Covers concepts of social complexity along with economy, demography, and social dynamics, followed by archaeological research design.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	544	Settlement Patterns	Spatial arrangement of residences, activity sites, and communities over landscape. Emphasizes natural and cultural factors influencing settlement patterns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	546	Pleistocene Prehistory	Development of society and culture in the Old World during the Pleistocene epoch, emphasizing technological change through time and the relationship of people to their environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	547	Issues in Old World Domestication Economies	Archaeological evidence for transitions in Old World subsistence economies from hunting and gathering to dependence on domesticated plants and animals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	549	Chiefdoms	Examines archaeological evidence of chiefdoms, distinguished by hereditary leadership and non-bureaucratized decision-making elite, to illustrate emergence of social complexity, inequality.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	550	Economic Archaeology	Prehistoric economies in hunter-gatherer, tribal, and complex societies. Covers subsistence strategies, craft production and specialization, and exchange.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	551	Prehistoric Diet	Critical review of techniques for recovering dietary information and theoretical models concerned with explaining diet and nutrition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	555	Complex Societies	Examines structural variations in hierarchically organized societies, along with origins, dynamics, and collapse.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	558	Mortuary Practices and Cultural Analysis	Critical overview of theory and methods of reconstructing lifeways of past peoples with ethnographic/archaeological data and a bioarchaeological perspective.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	559	Archaeology and the Ideational Realm	Postprocessual and other views concerning relevance of mental phenomena for understanding sociocultural change. Various approaches to inferring prehistoric meanings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	560	Archaeology of the Social Realm.	Applies social theory to archaeological study of societies of the past. Includes practice theory, hierarchy, space and place, material culture.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	563	Hunter-Gatherer Adaptations	Evolution of prehistoric hunter-gatherer societies in the Old and New Worlds from the most ancient times through protohistoric chiefdoms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASB	567	Southwestern Archaeology	Broad coverage of Southwestern cultural developments focusing on current debates and rigorous use of archaeological data in making cultural inferences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	568	Intrasite Research Strategies	Research issues within a single site context. Topics include quantitative spatial analysis, site definition, sampling, distributional analysis, and substantive interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	571	Museum Principles	History, philosophy, and current status of museums. Explores collecting, preservation, exhibition, education, and research activities in different types of museums.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	572	Museum Collection Management	Principles and practices of acquisition, documentation, care, and use of museum collections; registration, cataloging, and preservation methods; legal and ethical issues. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	573	Museum Administration	Formal organization and management of museums, governance, personnel matters, fund raising and grantsmanship, legal and ethical issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	574	Exhibition Planning and Design	Exhibition philosophies and development; processes of planning, designing, staging, installing, evaluating, and disassembling temporary and long-term exhibits.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	575	Computers and Museums	Basics of museum computer application; hardware and software; fundamentals of database management; issues of research, collections management, and administration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	576	Museum Interpretation	Processes of planning, implementing, documenting, and evaluating educational programs in museums for varied audience--children, adults, and special interest groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	577	Principles of Conservation	Preservation of museum objects: nature of materials, environmental controls, and causes of degradation; recognizing problems, damage, and solutions; proper care of objects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	579	Critical Issues in Museum Studies	Current debates of museum practice from an anthropological perspective. Addresses issues of collection, presentation, authenticity, and authority.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		

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ASB	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASB	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(HU or SB) & G	
ASB	311-W	Principles of Social Anthropology	Comparative analysis of domestic groups and economic and political organizations in primitive and peasant societies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G & H	
ASB	319-W	Indigenous Peoples of North America	Ethnology of the range of Native North American Indian cultural history. Comparative analysis of historical and contemporary issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
ASB	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.

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ASB	340	Migration and Culture	Examines migration and culture embedded in a transnational field of social, economic, and political processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	346	Marriage and Family Diversity	Social, economic, and cultural factors that shape family diversity in relation to generational and gender dynamics within the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	350-W	Anthropology and Art	Art forms of people in relationship to their social and cultural setting.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(HU or SB) & G	
ASB	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
ASB	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
ASB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
ASB	440	Women in the Global Factory	Examines the impact of Third World women's incorporation into the new global division of labor in the late 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	441	Sexuality and Culture	Uses a global, comparative approach to examine the cultural and historical construction of sexualities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	442	Urban Anthropology	Issues in understanding urban culture and social space from interdisciplinary anthropological perspective. May involve fieldwork. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
ASB	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	447	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	493	Honors Thesis	Honors Thesis	N	RSC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
ASB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
ASB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
ASB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

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ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
ASB	202	Ethnic Relations/U.S.	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
ASB	222	Buried Cities and Lost Tribes	Archaeology through its most important discoveries: human origins, Pompeii, King Tut, the Holy Land, Southwest Indians, and methods of field archaeology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
ASB	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
ASB	321	Indians of the Southwest	Cultures of the contemporary Indians of the southwestern United States and their historic antecedents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H & C	
ASB	335	Prehistory /Southwest	Anthropological understandings of major cultural processes and events in the prehistory of the American Southwest using evidence from archaeology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	(HU or SB) & G	
ASC	301	Contextual Uses of Algebra in Technology	Uses algebra to solve real-world technological problems using currently available computer software.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-requisites: Polytechnic BAS student
ASC	302	Contextual Uses of Geometry in Technology	Uses geometrical concepts to solve real-world technological problems using currently available computer software.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ASC	303	Contextual Uses of Trigonometry in Technology	Topics for close examination in selected dramatic and/or nondramatic works. May be repeated for credit when topics vary.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ASC	315	Numeracy in Technology	Contextual uses of mathematics in applied sciences. Emphasizes using mathematical methodologies to solve technology-related problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	
ASC	325	Physical Sciences in Technology	Physical systems and their interrelationships on technology systems. Real-world applications of physical systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
ASC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ASC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ASC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ASE	549	Stat Applicatns Engr		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Arizona State University	3.		
ASE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		Pre-requisites: Must be a non degree undergraduate student with less than or equal to 25 total earned hours
ASE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
ASE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
ASE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6	L	Pre-requisites: Must be an Honors student
ASE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-7		

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ASE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		
ASE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
ASE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
ASE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASM	104	Bones, Stones, and Human Evolution	Physical anthropology and archaeology. Evidence and processes of human evolution and of culture change. Primates. Fossil hominids and their tools. Race, variation, and heredity. Environment and human biology. Prehistoric culture and society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SB or SG	
ASM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ASM	246	Human Origins	History of discoveries and changing interpretations of human evolution. Earliest ancestors to emergence of modern humans. Humanity's place in nature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
ASM	301	Peopling of the World	Reviews all evidence for human dispersal during the last 100,000 years, origins of language, cultures, races, and beginnings of modern humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites:ASM 104 with a grade of D or better
ASM	332	Life and Death in Ancient Egypt	Reveals ancient Egyptian life through recent research in archaeology and physical anthropology on cemeteries, tombs, and the dead themselves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: ASB 222
ASM	338	Anthropological Field Session	Anthropological field techniques, analysis of data, and preparation of field reports. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	2-8		
ASM	341	Human Osteology	Osteology, human paleontology, and osteometry. Description and analysis of archaeological and contemporary human populations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ASM	342	Human Biological Variation	Evolutionary interpretations of biological variation in living human populations, with emphasis on anthropological genetics and adaptation. Nutrition and disease and their relation to genetics and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	
ASM	343	Primatology	Evolution and adaptations of nonhuman primates, emphasizing social behavior. Includes material from fossil evidence and field and lab studies in behavior and biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	344	Fossil Hominids	The fossil evidence for human evolution, emphasizing the concepts and methods for reconstructing the past.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	H	Pre-requisites:ASM 104 with a grade of D or better
ASM	345	Disease and Human Evolution	Interaction of people and pathogens from prehistoric times to the present, with emphasis on disease as an agent of genetic selection.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	348	Social Issues in Human Genetics	Moral and social implications of developments in genetic science, particularly as they affect reproduction, medicine, and evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASM	365	Laboratory Methods in Archaeology	Techniques of artifact analysis. Basic archaeological research techniques; methods of report writing. May be repeated for credit for total of 8 hours.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ASM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	401	Health and Human Biology	Health and biology in contexts of human evolutionary history, biological and cultural variation, lab-based health status assessments, core concepts of human variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ASM	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: Students who have credit for SSH 414, or SOS 414, may not enroll in ASM 414; Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100

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ASM	435	Archaeological Pollen Analysis	Theory, methodology, and practice of pollen analytic techniques. Compares uses in botany, geology, and archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	446	Principles of Human Genetics	Molecular and cellular analysis of the human genome.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	If you have credit for BIO 446, you may not enroll in ASM 446
ASM	448	Geoarchaeology	Geologic context relevant to archaeological research. Topics include sediments, deposition environments, soils, anthropogenic and biogenic deposits, and quaternary chronology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	450	Bioarchaeology	Surveys archaeological and physical anthropological methods and theories for evaluating skeletal and burial remains to reconstruct biocultural adaptation and lifeways.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	452	Dental Anthropology	Human and primate dental morphology, growth, evolution, and genetics. Within- and between-group variation. Dental pathology and behavioral-cultural-dietary factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	
ASM	454	Comparative Primate Anatomy	Functional anatomy of the cranial, dental, and locomotor apparatus of primates, including humans, emphasizing the relation of morphology to behavior and environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ASM	455	Primate Behavior Laboratory	Instruction and practice in methods of observation and analysis of primate behavior. Discusses the relationship between class work on captive animals and field techniques for studying free-ranging groups.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	Pre-requisites:ASM 343 with a grade of D or better
ASM	456	Infectious Disease and Human Evolution	Study of infectious disease and humanity, using evidence from anthropology, history, medicine, and ancient skeletons.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	459	Forensic Anthropology	Applies anthropology, primarily human osteology, to legal questions, including individual identification, crime scenes, forensic reports, police work, and court testimony.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	460	Human Growth and Development: An Evolutionary Perspective	How growth and development influences human variation; stages of human life; evolution through the fossil record; genetic, environmental, and biocultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104 with C or better; ASM 341, ASM 342, ASM 344, ASM 345 or ASM 348
ASM	465	Quantification and Analysis for Anthropologists	Statistical and quantitative strategies for envisioning and exploring archaeological, physical anthropological, bioarchaeological, and socialcultural data. Univariate and bivariate methods. A basic understanding of algebra is necessary to be successful in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	CS	
ASM	472	Archaeological Ceramics	Analysis and identification of pottery wares, types, and varieties. Systems for ceramic classification and cultural interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Must be an Honors student
ASM	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6	L	Pre-requisites: Must be an Honors student
ASM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		Pre-requisites: Must be an Honors student
ASM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
ASM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
ASM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	525	Primate Paleobiology	Seminar-based survey of primate evolution, focusing on comparative biology of the extant primates and the fossil record through the Miocene.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	530	Paleoanthropology	Seminar-based in-depth study of the fossil record of human evolution and its geological, environmental, and phylogenetic contexts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	543	Primateology	Advanced study of nonhuman primate behavioral adaptations, emphasizing comparative sociality, incorporating data on behavior and biology from field and captivity.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		

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ASM	546	Principles of Human Genetics	Examines human molecular genetics from an evolutionary perspective, particularly analysis, current debates, the Human Genome Project, disease, ethics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	548	Geoarchaeology	Geologic context relevant to archaeological research. Topics include sediments, deposition environments, soils, anthropogenic and biogenic deposits, and quaternary chronology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	555	Advanced Human Osteology	Lab and field techniques in dealing with the human skeleton. Emphasizes preparation, identification, radiography, sectioning, microscopy, and data processing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	559	Forensic Anthropology	Applies anthropology, primarily human osteology, to legal questions, including individual identification, crime scenes, forensic reports, police work, and court testimony.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	560	Human Growth and Development: An Evolutionary Perspective	How growth and development influences human variation; stages of human life; evolution through the fossil record; genetic, environmental, and biocultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	565	Quantitative Archaeology	Formal methods of structuring, codifying, and analyzing data for archaeological problems. Designing research to yield data amenable to productive analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	566	Advanced Topics in Quantitative Archaeology	Archaeological issues associated with quantitative analysis, e.g., Bayesian and Monte Carlo approaches, simulation, diversity. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	568	GIS and Spatial Technologies in Anthropological Research	In-depth survey of spatial technologies in anthropological research, including GIS, spatial modeling, remote sensing, and image analysis and classification.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	573	Lithic Analysis	Analysis and interpretation of chipped stone artifacts. Focus on both techniques and underlying concepts and their application to real collections.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	579	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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ASM	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
AST	111	Introduction to Solar Systems Astronomy	History, properties of light, instruments, study of solar system and nearby stars. For nonscience majors. Optional lab (AST 113). Both AST 111 and AST 113 must be taken to secure SQ general studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	112	Introduction to Stars, Galaxies, and Cosmology	Structure and evolution of stars, star clusters, galaxies, cosmology. For nonscience majors. Optional lab (AST 114). Both AST 112 and 114 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	113	Astronomy Laboratory I	Astronomical observations and experiments designed to help the student become familiar with the sky, telescopes, and astronomical measurements. Both AST 111 and 113 or AST 113 and 321 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	Pre-requisites: Must have completed AST 111 or AST 321 with a grade of D or better; or be co-enrolled
AST	114	Astronomy Laboratory II	Similar to AST 113, but material chosen to supplement AST 112 and 322. Fee. Both AST 112 and 114 or AST 114 and 322 must be taken to secure SQ General Studies credit	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	

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AST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
AST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
AST	321	Introduction to Planetary and Stellar Astrophysics	Physical laws; celestial mechanics; properties of planets, the sun, and other stars; formation and evolution of stars and planetary systems. Both AST 113 and 321 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	322	Introduction to Galactic and Extragalactic Astrophysics	Evolved stars, introduction to relativity, galaxies and interstellar matter, structure and dynamics of galaxies, cosmology. Both AST 114 and 322 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	421	Astrophysics I	Selected astrophysical topics, including stellar evolution, star formation, interstellar medium, galactic structure, extragalactic astronomy, high-energy astrophysics, and cosmology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	422	Astrophysics II	Same range of astrophysical topics as for AST 421 but emphasizes different specific topics in a given year.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	492	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		Pre-requisites: Must be an Honors student
AST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6	L	Pre-requisites: Must be an Honors student
AST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
AST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-7		
AST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
AST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	521	Stars and Interstellar Medium I	Radiative transfer, atomic and molecular properties, stellar atmospheres, line profiles, nonlocal thermodynamic equilibrium, interstellar gas and dust, star formation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	522	Stars and Interstellar Medium II	Stellar structure, radiative transport, boundary conditions, equations of state, nuclear reactions, opacity, nucleosynthesis, chemical evolution of the galaxy, stellar evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	523	Stars and Interstellar Medium III	Structure of the interstellar medium, gaseous nebulae, recombination theory, ionization fronts and shock waves, galactic magnetic fields, magnetohydrodynamics, molecular clouds.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	531	Galaxies and Cosmology I	Structure and evolution of the Milky Way, stellar properties, populations and associations/clusters, interstellar medium, dark matter.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	532-M	Galaxies and Cosmology II	Structure of galaxies and the nearby universe, Hubble sequence, kappa-space, stellar populations, active galaxies, galaxy environments.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	533	Galaxies and Cosmology III	Issues in modern cosmology, the distance scale, cosmological parameters, cosmological tests, cosmic background radiation, early universe, galaxy formation and evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	591-M	Seminar		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		

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AST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
AST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
AST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
AST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
AST	111	Introduction to Solar Systems Astronomy	History, properties of light, instruments, study of solar system and nearby stars. For nonscience majors. Optional lab (AST 113). Both AST 111 and AST 113 must be taken to secure SQ general studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SQ	
AST	112	Introduction to Stars, Galaxies, and Cosmology	Structure and evolution of stars, star clusters, galaxies, cosmology. For nonscience majors. Optional lab (AST 114). Both AST 112 and 114 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SQ	
AST	113	Astronomy Laboratory I	Astronomical observations and experiments designed to help the student become familiar with the sky, telescopes, and astronomical measurements. Both AST 111 and 113 or AST 113 and 321 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.	SQ	Pre-requisites: Must have completed AST 111 or AST 321 with a grade of D or better; or be co-enrolled
AST	114	Astronomy Laboratory II	Similar to AST 113, but material chosen to supplement AST 112 and 322. Fee. Both AST 112 and 114 or AST 114 and 322 must be taken to secure SQ General Studies credit	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.	SQ	Pre-requisites: AST 112, or AST 322 with a grade of D or better, or be co-enrolled
AST	301	Discovering the Sun and Its Planets	Comprehensive course in astronomy for non-science majors. Course will include lectures, written assignments, and hands-on work. Not open to students with credit in AST 111 (available at the Tempe campus) or its equivalent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

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AST	302	Modern Astronomy	Comprehensive course in astronomy for non-science majors. Covers achievements and controversies of 20th century astronomy through lectures, written assignments, and hands-on work. Not open to students with credit in AST 112 (available at Tempe campus) or its equivalent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ASU	101-HNR	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1.		Pre-requisite: Barrett Honors student
ASU	101-CPP	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	College of Public Programs	College of Public Programs	1.		Pre-requisite: College of Public Programs student
ASU	101-CTI	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	College of Tech & Innovation	Dean, College of Technology and Innovation	1.		Prerequisite(s): College of Technology and Innovation student
ASU	101-CS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1.		Pre-requisite: Cronkite School of Journalism and Mass Communication student
ASU	101-COD	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		Pre-requisites: College of Design students only

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASU	101-HCA	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		Pre-requisites: Herberger College of the Arts students only
ASU	101-FSE	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		Pre-requisite: Fulton School of Engineering student
ASU	101-LA	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1.		Pre-requisite: College of Liberal Arts & Sciences student
ASU	101-NCIAS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	New College of Interdisciplinary Arts and Sciences	1.		Pre-requisite: New College of Interdisciplinary Arts & Sciences student
ASU	101-NU	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Nursing & Healthcare Innovation students only
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		

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ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		
ASU	101-SAAS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		Pre-requisite: School of Applied Arts & Sciences student
ASU	101-SOS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	1.		Pre-requisite: School of Sustainability student
ASU	101-ED	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Mary Lou Fulton College of Education
ASU	101-EI	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: School of Educational Innovation and Teacher Preparation students only
ASU	101-TE	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Teacher Education and Leadership student
ASU	101-UC	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	University College	Dean, University College	1.		Pre-requisite: University College student
ASU	101-WPC	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	1.		Pre-requisite: W.P.Carey student

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ASU	101-MO	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		Pre-requisite: W. P. Carey student
ATC	230	Fundamentals of Air Traffic Management	Introduces the manuals, procedures, maps, charts, and regulations used by air traffic controllers in the National Airspace System (NAS).	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ATC	331	Tower Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in ATC towers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	332	TRACON Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in FAA TRACONs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	333	En Route Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in FAA ATC En Route Centers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	431	Tower Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:completed ATC 331 with a grade for D or better or be currently enrolled
ATC	432	TRACON Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ATC	433	En Route Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Completed ATC 333 with a grade of D or better, or currently enrolled
ATC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ATE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ATE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ATE	361	Building Structures I	Introduces load distribution on structures. Static analysis of determinant beams, trusses, arches, and rigid frames. Computer applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Master of Architecture or Architectural Studies BSD student
ATE	362	Building Structures II	Strength of materials. Stresses in beams and columns. Thermal effects on structures. Analysis, design, and detailing of wood structural systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ATE	451	Building Systems I	Principles of solar radiation, heat and moisture transfer, and environmental control systems as form influences. Energy-conscious design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Master of Architecture or Bldg Des(Energy Perform/Bldgs) MS student
ATE	452	Building Systems II	Architectural design implications of heating, ventilation, and air conditioning systems. Principles of lighting, daylighting, and acoustics, and their applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be one of the following students: Master of Architecture, Design Studies BA or Architectural Studies BSD
ATE	462	Building Structures II	Strength of materials. Stresses in beams and columns. Thermal effects on structures. Analysis, design, and detailing of wood structural systems. Lecture, lab.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Master of Architecture or Architectural Studies BSD student
ATE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ATE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ATE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ATE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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ATE	521	Building Environmental Science	Scientific principles relating to comfort and environmental control. Heat and moisture transfer. Solar/natural energies for heating, cooling, and lighting.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Bldg Des(Energy Perform/Bldgs) MS student
ATE	550	Passive Heating and Cooling	Theory, analysis, and application of passive and low-energy systems in order to maximize comfort and minimize energy consumption in buildings.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Bldg Des(Energy Perform/Bldgs) MS student
ATE	553	Building Systems III	Design and integration of building systems, including mechanical, electrical, plumbing, security, communications, fire protection, and transportation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student; Co-requisite: ADE 521; ATE 563
ATE	556	Building Development	Comprehensive design development through the understanding and integration of building materials and systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: ADE 522 and APH 505
ATE	557	Construction Documents	Production of architectural working drawings; legal status, organization, layout, site survey plans, sections, elevations, details, schedules, and coordination.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ATE	560	Building Energy Analysis	Computer simulation of building thermal behavior. Software review. Detailed study of selected simulation models using case study projects.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Bldg Des(Energy Perform/Bldgs) MS student
ATE	562	Experimental Evaluation	Instrumentation, measurement and computational techniques for analysis of building components, and assessment of thermal and luminous performance. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ATE	563	Building Structures III	Analysis, design, and detailing of steel buildings and frames. Lateral analysis of small rigid and braced frame systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ATE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	582	Environmental Control Systems	Heating, ventilation, and air-conditioning systems. Loads, psychrometrics, refrigeration cycle, air/water distribution, controls, energy performance standards, and utility rates.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ATE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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ATE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AVC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	301	Architectural Communication	Communication skills for architecture studios. Emphasis on graphics, drawing conventions, media, computer-aided design, design of presentations, and oral presentations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		
AVC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AVC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
AVC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AVC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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AVC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: CHM 231 with D or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with D or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-or Co-requisites: BCH 361 (with C or better if completed)
BCH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 231 with D or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with D or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-or Co-requisites: BCH 361 (with C or better if completed)
BCH	392	Introduction to Research Techniques	Instrumental methods and philosophy of research by actual participation in chemical research projects. May be repeated for total of 6 semester hours.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	461	General Biochemistry	Structure, chemistry, and metabolism of biomolecules and their role in the biochemical processes of living organisms. Credit is allowed for only BCH 461 or 361.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 234 or 334 with C or better; Co-requisites: CHM 341 or CHM 346
BCH	462	General Biochemistry	Continuation of BCH 461.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: BCH 461 with C or better
BCH	463	Biophysical Chemistry	Principles of physical chemistry as applied to biological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 341 or CHM 346 with C or better
BCH	464	Biophysical Chemistry Laboratory	Introduces physical methods in modern biochemistry.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		Pre-or Co-requisites: BCH 463 (with a grade of C or better if completed)
BCH	465	Protein and Nucleic Acid Biochemistry	Structure and function of proteins and nucleic acids, including protein folding, enzymology, proteomics, DNA/RNA structure, replication, transcription, and genomics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: Must have completed BCH 461 with a grade of C or greater or be currently enrolled; Co-requisite of BCH 462
BCH	467	Analytical Biochemistry Laboratory	Quantitative analysis, separation and purification of biological molecules. Applies chemical and physical methods to the characterization of biological macromolecules.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	L	Pre/Co-requisite: BCH 462 with C or better if completed
BCH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
BCH	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		
BCH	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6	L	Pre-requisites: Must be an Honors student
BCH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-7		
BCH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	501	Current Topics in Biochemistry	May be repeated for credit.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		

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BCH	561	Advanced Topics in Biochemistry	Topics selected from emerging areas of biochemistry based primarily on current literature.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	564	Bionanotechnology	The use of biomolecules, bioelectronics, and biomedicine for applications in nanotechnology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	568	Molecular Mechanisms of Photosynthesis	Structure and function of photosynthetic complexes; mechanism of energy conversion in plants, bacteria, and model systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: CHM 231 with D or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with D or better if completed)
BCS	101	Elementary Serbo-Croatian	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
BCS	102	Elementary Serbo-Croatian	See BCS 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 101 with a grade of D or better, or currently enrolled
BCS	201	Intermediate Serbo-Croatian	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 102 with a grade of D or better, or currently enrolled
BCS	202	Intermediate Serbo-Croatian	See BCS 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 202 with a grade of D or better or currently enrolled
BCS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
BCS	495	Serbo-Croatian for Heritage Speakers	Generates professional proficiency by developing communicative and written competency in standard literary Serbo-Croatian.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
BDE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
BDE	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Graduate College	Graduate College	1-12		
BDE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Graduate College	Graduate College	1-12		
BDE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-15		
BE	333	Issues in Teaching		Y	LEC	Y	CNV	Institute & Grad Sch Education	Dean, W.P. Carey School of Business	3.		
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	

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BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
BIO	201	Human Anatomy and Physiology I	Structure and dynamics of the human mechanism. Cannot be used for major credit in the biological sciences. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
BIO	202	Human Anatomy and Physiology II	Continuation of BIO 201. Cannot be used for major credit in the biological sciences. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
BIO	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	340	General Genetics	Science of heredity and variation.	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
BIO	351	Developmental Biology	Principles of developmental biology, including the development of major organ systems and their underlying molecular and cellular mechanisms. Illustrated mainly using vertebrate examples.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: BIO 187 and BIO 188 completed with a D or greater or currently enrolled
BIO	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	360	Animal Physiology	Principles and mechanisms of physiological regulation in animals, with a focus on humans.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	480	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	482	Advanced Methods of Teaching Biology	Design, delivery, and evaluation of student-centered, inquiry-based lessons for high school biology students. Learning cycle.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SG	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	189	Life Sciences Career Paths	Overview of modern life sciences, including research trends, extracurricular opportunities, degree programs, and potential careers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
BIO	193	The Nature of Biological Science	Creative and critical thinking skills in biological research; nature of biological knowledge; role of experimentation, predictions, hypotheses, theories, values. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	201	Human Anatomy and Physiology I	Structure and dynamics of the human mechanism. Cannot be used for major credit in the biological sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SG	
BIO	202	Human Anatomy and Physiology II	Continuation of BIO 201. Cannot be used for major credit in the biological sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	300	Natural History of Arizona	Plant and animal communities of Arizona. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	301	Field Natural History	Organisms and their natural environment. Cannot be used for major credit in the biological sciences. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	302	Cancer and Heart Disease	Incidence and mortality statistics for cancer and heart disease; host and environmental risk factors; diagnosis, treatment and prevention strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisite: BIO 188 with a C or better

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BIO	303	Radiation and Life	Benefits and risks of radiation exposure in society; medical applications, food irradiation, nuclear power, solar UV, population health effects. Cannot be counted toward a biology major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
BIO	304	Radiation Medicine and Biology	Uses of radiation in medicine, including CT, diagnostic x rays, MRI, nuclear medicine, ultrasound; biological effects of radiation with emphasis on cancer.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
BIO	310	Special Problems and Techniques	Qualified undergraduates may investigate a specific biological problem under the direction of a faculty member. May be repeated for a total of 6 semester hours.	N	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		
BIO	311	Biology and Society	Explores interactions between biological sciences and society, e.g., biomedical, environmental, ethical, historical, legal, philosophical, political, and social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	312	Bioethics	Critical examination of moral questions arising in biomedical contexts, particularly due to new technologies and scientific discoveries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	
BIO	314	Research Colloquium in Biology and Society I	Develops critical thinking abilities, research methods, and writing skills for research in the interactions between biological sciences and society. Both BIO 314 & 414 must be taken to secure L General Studies designation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: BS Biology and Society Concentration majors
BIO	316	History of Biology: Conflicts and Controversies	Focuses on 19th and 20th centuries, considering biology as a discipline. Evolution, problems of heredity, development, and cell theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
BIO	318	History of Medicine	Scientific study of the human body, changing theories of disease, evolution of practical opinions on treatment, and the emerging institutionalization of medical practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
BIO	319	Environmental Science (Nonmajor)	Environmental and biological concepts used to understand ecological systems with specific references to problems caused by humans. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	G	
BIO	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	321	Introductory Ecology Laboratory	Lab and field observations and experiments to test current concepts and theories in ecology.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	
BIO	322	Conservation Biology and Ecological Sustainability I	Species-level approaches to the protection, management, and restoration of biological resources from scientific and policy perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	323	Conservation Biology and Ecological Sustainability II	Ecosystem-level approaches to the protection, management, and restoration of biota and ecosystem processes from local to global scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	325	Oceanography	Introduces marine geology, chemistry, and physical and biological oceanography. Methods of oceanic exploration, environmental and social aspects of oceans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	331	Animal Behavior	Evolutionary, genetic, physiological, and ecological bases of animal behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	340	General Genetics	Science of heredity and variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	341	Genetic Analysis	General genetics: science of heredity and variation using critical inquiry. Not open to students with credit in BIO 340.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	5.		
BIO	342	General Genetics Laboratory	Explores general principles of inheritance with special reference to Mendelian, molecular, and computational genetics via lab experiments.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	343	Genetic Engineering and Society	Introduces genetic engineering, with emphasis on applications (gene therapy, DNA fingerprinting, bioremediation, transgenic animals and plants). Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	
BIO	344	Origins, Evolution, and Creation	Examines scientific, mythic, and religious ideas relating to origins (particularly human). Place of antievolutionism and scientific creationism in American culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	345	Organic Evolution	Processes of adaptive change and speciation in sexual populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	346	The Darwinian Revolution	Intellectual and cultural history of Darwinism and modern evolutionary theory and their impact on 19th- and 20th-century thought.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	351	Developmental Biology	Principles of developmental biology, including the development of major organ systems and their underlying molecular and cellular mechanisms. Illustrated mainly using vertebrate examples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and BIO 188 completed with a D or greater or currently enrolled
BIO	352	Laboratory in Vertebrate Developmental Anatomy	Morphology of representative embryonic and adult vertebrates. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	
BIO	360	Animal Physiology	Principles and mechanisms of physiological regulation in animals, with a focus on humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	361	Animal Physiology Laboratory	Experimental lab studies of physiological mechanisms in animals and model systems. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: BIO 360 (with C or better if completed)
BIO	370	Vertebrate Zoology	Characteristics, classification, evolution, and natural history of the major groups of vertebrate animals. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		

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BIO	385	Comparative Invertebrate Zoology	Characteristics, life cycles, adaptations, and evolution of invertebrate animals. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	386	General Entomology	Form, activities, and classification of insects. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	390	Medical/Dental Field Placement	Field placement for students exploring a career in a health profession. Requires classroom sessions and fieldwork.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	402	Service Learning	Provides academic enrichment and mentoring to economically disadvantaged children; related to course work in biology; requires weekly reflective reading and writing.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	
BIO	406	Computer Applications in Biology	Experience in zoological field techniques. Weekend or longer field trips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	
BIO	410	Techniques in Wildlife Conservation Biology	Field and analytical techniques used in evaluating population structure, viability and environmental impacts. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
BIO	411	Quantitative Conservation Biology	Principles of conservation science; demography and extinction risk; practical approaches to conserving small, declining, and exploited populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	412	Conservation in Practice	Global biodiversity patterns, processes, and conservation; global environmental change; sustainable use of natural resources; emphasizing international approaches to conservation biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	414	Research Colloquium in Biology and Society II	Further develops critical thinking abilities, research methods, and writing skills for research in the interactions between biological sciences and society. Both BIO 314 & 414 must be taken to secure L General Studies designation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	Pre-requisites: BS Biology and Society Concentration majors; BIO 314 with C or better
BIO	415	Biometry	Statistical methods applied to biological problems, design of experiments, estimation, significance, analysis of variance, regression, correlation, chi square, and bioassay; the use of computers. Does not satisfy lab requirements for the College of Liberal Arts and Sciences' General Studies program. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	CS	Pre-requisites: Must have completed one of the following courses with a grade of D or greater: MAT 210, 251, 270 or 290
BIO	416	Professional Values in Science	Considers issues related to values in science such as collaboration, finances, legal issues, media, mentoring, ownership of ideas, scientific integrity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
BIO	417	Experimental Design	Fixed, random, mixed models; crossed and nested factorial designs; balanced and unbalanced data; completely randomized, blocked, repeated measure designs; ANCOVA.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	421	Landscape Ecology	Discusses how landscape heterogeneity interacts with ecological processes, and implications for biodiversity conservation, resource management, and landscape and urban planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		You may not enroll in BIO 421 if you have credit for BIO 521
BIO	423	Population and Community Ecology	Organization and dynamics of population and communities, emphasizing animals. Theoretical and empirical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2-3		
BIO	424	Mathematical Models in Ecology	Mathematical modeling of populations, communities, and ecosystems, including case studies and student-designed projects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	425	Animal Ecology	Physiological and behavioral adaptations of individual animals to both abiotic and biotic environments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	426	Limnology	Structure and function of aquatic ecosystems, with emphasis on freshwater lakes and streams. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3-4	L	
BIO	427	Fire	Interdisciplinary survey of fire on Earth--its history, ecology, and management.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
BIO	428	Biogeography	Environmental and historical processes determining distributional patterns of animals and plants, emphasizing terrestrial life.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
BIO	431	Genes, Development, and Evolution	Contribution of genes, developmental processes, and evolution to pattern of phenotypic variation, including disease.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
BIO	435	Research Techniques in Animal Behavior	Experimental and field studies of animal behavior; description and quantification of animal behavior and interpretation of behavior within an evolutionary framework.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	436	Sociobiology and Behavioral Ecology	Surveys animal and human social behavior examined from ecological and evolutionary perspectives using theoretical and empirical constructs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	440	Functional Genomics	Functional relevance of genomic structures; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	446	Principles of Human Genetics	Molecular and cellular analysis of the human genome.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites:Completed BIO 340; If you have credit in ASM 446, you may not enroll in BIO 446
BIO	450	Advanced Developmental Biology	Current concepts and experimental methods involving differentiation and biosynthetic activities of cells and organisms, with examples from microorganisms, plants, and animals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	451	Cell Biotechnology Laboratory	Mammalian cell culture techniques, including mouse embryonic stem cells, the use of bioreactors, cell fractionation, and digital video imaging.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	453	Animal Histology	Microscopic study of animal tissues. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		

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BIO	455	Introduction to Comparative Genomics	Explores genomic sequences and hypotheses for their structure, evolutionary history, and underlying mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MAT 251 and MAT 351 and BIO 355 completed with a D or greater or currently enrolled
BIO	456	Bioinformatics and Molecular Evolution	Fundamental biological motivation and methods used in bioinformatics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MAT 251 and MAT 351 and BIO 355 completed with a D or greater or currently enrolled
BIO	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	461	Comparative Animal Physiology	A comparative approach to understanding the function of animal physiological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	462	Endocrine Physiology	Mechanisms of action of hormones; endocrine control of homeostasis, growth, stress responses, and reproduction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	464	Photobiology	Principles underlying the effects of light on growth, development, and behavior of plants, animals, and microorganisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	465	Neurophysiology	Detailed treatment of cellular and organismal neurophysiology and nervous system function.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	466	Neurophysiology Laboratory	Intracellular and extracellular electrophysiological recording techniques, histological preparations, and dye-filling techniques.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	467	Neurobiology	Introduces major areas of neurobiology, from fundamental cellular and molecular processes through systems neuroscience and neural bases of behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	469	Computational Neuroscience: Case Studies in Neuroethology	Introduces the use of computational methods for understanding neural function at the cellular, circuit, and systems levels.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	470	Systematic Zoology	Philosophy, theory, practice of interpreting animal diversity, including species concepts, speciation, nomenclature, and evolutionary and phylogenetic classification emphasizing phylogenetics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	
BIO	471	Ornithology	Biology of birds. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	472	Mammalogy	Classification, structure, habits, ecology, and distribution of mammals, emphasizing North American forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	473	Ichthyology	Systematics and biology of recent and extinct fishes. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	474	Herpetology	Systematics and biology of recent and extinct reptiles and amphibians. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	480	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	482	Advanced Methods of Teaching Biology	Design, delivery, and evaluation of student-centered, inquiry-based lessons for high school biology students. Learning cycle.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	490	Surgical Field Placement	Advanced field placement for students exploring a career in a health profession. Requires classroom sessions and fieldwork.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	492	Honors Directed Study		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		
BIO	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
BIO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	495	Undergraduate Thesis	Guided research culminating in the preparation of an undergraduate thesis based on supervised research done in this and previous semesters.	N	THE	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
BIO	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
BIO	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
BIO	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	502	Transmission Electron Microscopy	Theory, use, and methods of preparing biological materials for transmission electron microscopy. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	505	Scanning Electron Microscopy	Theory, use, and methods of preparing biological materials for scanning electron microscopy. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	508	Scientific Data Presentation	Techniques necessary for presentation of scientific data used in journal publications, grant proposals, and visual presentations. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	515	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Credit is allowed for only BIO 515, GLG 547, PAF 547 or SOS 516
BIO	516	Foundations of Bioethics	Advanced introduction to the theoretical and normative foundations of the field of bioethics. May be repeated for credit.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		

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BIO	520	Biology of the Desert	Factors affecting plant and animal life in the desert regions and adaptations of the organisms to these factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	521	Landscape Ecology	Discusses how landscape heterogeneity interacts with ecological processes, and implications for biodiversity conservation, resource management, and landscape and urban planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		You may not enroll in BIO 521 if you have credit for BIO 421
BIO	522	Populations: Evolutionary Ecology	Principles of population biology and community ecology within an evolutionary framework.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	524	Ecosystems	Structure and function of terrestrial and aquatic ecosystems, with emphasis on productivity, energetics, biogeochemical cycling, and systems integration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	525	Microclimate Methods	Techniques to measure and quantify microclimate and mass transfer. Supporting principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	526	Quantitative Ecology	Sampling strategies, spatial pattern analysis, species diversity, classification, and applications of multivariate techniques to ecology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	529	Advanced Limnology	Recent literature, developments, methods, and limnological theory; field and lab application to some particular topic in limnology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	543	Molecular Genetics	Nature and function of the gene; emphasis on the molecular basis of inheritance and gene expression in prokaryotes and eukaryotes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	545	Populations: Evolutionary Genetics	Mathematical models in the description and analysis of the genetics of populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	547	Techniques in Evolutionary Genetics	Practical experience in modern techniques for the study of evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	550	Advanced Cell Biology	Applies contemporary electron microscopic and biochemical/molecular techniques for studying eukaryotic cell functions. Mechanisms of intracellular protein trafficking.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	551	Biomembranes	Structure and function of biological membranes, emphasizing synthesis, fluidity, exocytosis, endocytosis, and cell responses to hormones and neurotransmitters.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	552	Developmental Genetics	Genetic approaches to the analysis of development during the life cycle of eukaryotic organisms, and the role of genes in the unfolding of the differentiated phenotype.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	561	Comparative Animal Physiology	A comparative approach to understanding the function of animal physiological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	563	Environmental Physiology	Physiological responses and adaptations of animals to various aspects of the physical environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	564	Cellular Physiology and Signaling	Emphasizes the molecular basis for cell structure, function and intercellular signaling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		

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BIO	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
BIO	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	Pre-requisites: BIO 187 with of C or greater or be currently enrolled
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	201	Human Anatomy and Physiology I	Structure and dynamics of the human mechanism. Cannot be used for major credit in the biological sciences. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	202	Human Anatomy and Physiology II	Continuation of BIO 201. Cannot be used for major credit in the biological sciences. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		
BIO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	301	Foundations of Interdisciplinary Studies	Introduces concepts and methods of interdisciplinary study by critically examining anticipated 21st-century workplace and civic trends.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; Activation of BIS eligibility student group by a BIS advisor
BIS	301	Foundations of Interdisciplinary Studies	Introduces concepts and methods of interdisciplinary study by critically examining anticipated 21st-century workplace and civic trends.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; Activation of BIS eligibility student group by a BIS advisor
BIS	302	Interdisciplinary Inquiry	Explores interdisciplinarity and integration as applied to various approaches of human inquiry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; BIS 301 with a grade of C or better
BIS	302	Interdisciplinary Inquiry	Explores interdisciplinarity and integration as applied to various approaches of human inquiry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; BIS 301 with a grade of C or better
BIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	401	Applied Interdisciplinary Studies	Applies interdisciplinary problem-solving skills in internships, service-learning, or research; may involve individual or group projects combining both concentrations.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	401	Applied Interdisciplinary Studies	Applies interdisciplinary problem-solving skills in internships, service-learning, or research; may involve individual or group projects combining both concentrations.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	402	Senior Seminar	Capstone course helps integrate classroom and experiential learning. Students choose among course topics that address their interests.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	402	Senior Seminar	Capstone course helps integrate classroom and experiential learning. Students choose among course topics that address their interests.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
BIS	493	Honors Thesis		N	THE	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
BIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		

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BIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	514	Bilingual/Multicult-Spec Educ	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	515	Instructional Methods for Bilingual Students	Introduces general dual language teaching approaches. Focuses on the effective teaching of limited English proficient populations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	521	Primary/Elementary Communication Arts in Bilingual Education	Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis)	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	524	Secondary Sheltered ESL Content Teaching	Teaching and assessing ESL adolescents in the content areas with an emphasis on integrating language acquisition principles with content learning.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	526	SEI for Elementary Schools	Prepares elementary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	527	SEI for Middle and Secondary Schools	Prepares middle and secondary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	528	Social Studies for Bilingual/ESL Teachers	Provides language and instructional methodologies and assessment strategies relevant to bilingual/multicultural students in social studies content delivered in Spanish and English.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	529	Language Assessment and Evaluation of ESL/BLE Students	Assessment and evaluation of linguistic minorities; test theory, score interpretation; culturally responsive assessment; assessment of language and school achievement.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	533	Literacy in Secondary BLE/ESL Settings	Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	537	Language Structure Aquisition	Introduces linguistics and language acquisition. Grammatical theory; language use in educational contexts; first, second, and simultaneous language acquisition.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	541	Nature of Bilingualism/Second-Language Acquisition	Bilingual and second-language acquisition, with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	543	Bilingual Education Models	Bilingual education programs in other countries; analysis of political, social, economic, and educational implications; practice in planning bilingual education curricula. See also offerings under MCE, SED, SPE, and SPF.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	565	Literature for Latina and Latino Children and Adolescents	Selects, analyzes, and utilizes literature for Latino/a and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

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BLE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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BLE	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis)	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	522-W	Literacy/Biliteracy Development	Examines approaches to first- and second-language reading and writing for bilingual/second-language learners from a whole language perspective (Spanish-English emphasis).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	541	Nature of Bilingualism/Second-Language Acquisition	Bilingual and second-language acquisition, with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	578	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
BLE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
BLE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
BLE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
BLE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BLE	220	Foundations of Structured English Immersion	Examines current educational practices and historical legal issues. Prepares teacher candidates with a provisional Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	220	Foundations of Structured English Immersion	Examines current educational practices and historical legal issues. Prepares teacher candidates with a provisional Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	312	ESL, Diversity, and Culture in Education	Examines social, historical, philosophical, and legal issues affecting racially, linguistically, culturally, and exceptionally diverse students in U.S. schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Co-requisites: Block 1 students, TEL 311, TEL 313, TEL 314, TEL 315 and TEL 396; Block 1B, TEL 315 and TEL 396; Block 2 ECT students, ECT 321, ECT 322, ECT 323, ECT 324 and ECT 397 OR Professional Development School students as appropriate
BLE	312	ESL, Diversity, and Culture in Education	Examines social, historical, philosophical, and legal issues affecting racially, linguistically, culturally, and exceptionally diverse students in U.S. schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
BLE	321	ESL Methods for Diverse Language Classrooms	Strategies and materials for second-language learning, including research on language acquisition/learning, practical applications of ESL methodologies, phonics.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood, ECT 411, ECT 412, ECT 413, ECT 414, ECT 496 OR Elementary Ed/ESL or Elementary Ed/BLE, BLE 322, BLE 324, EDP 323 and EED 397 OR Elem Ed, RDG 322, EDP 323, EED 324 and EED 397 OR PDS (Professional Development School)

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BLE	322	Second-Language Literacy 1 in Elementary Schools	Instructional/assessment strategies, including systematic, research-based phonics, vocabulary, comprehension, spelling, writing, phonemic writing in Spanish/English.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: BLE 321, BLE 324, EDP 323 and EED 397 or PDS (Professional Development School) student as appropriate
BLE	324	Social Studies for Diverse Language Classrooms	Social studies education standards, curriculum, and instructional strategies for English language learners.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: BLE 321, BLE 322, EDP 323 and EED 397 or PDS (Professional Development School) student as appropriate
BLE	335	Language Diversity in Classrooms	Issues in sociolinguistics and language variation in schools with a focus on classroom interaction, instruction, curriculum, assessment, and language policy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	335	Language Diversity in Classrooms	Issues in sociolinguistics and language variation in schools with a focus on classroom interaction, instruction, curriculum, assessment, and language policy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	400	Principles of Language Minority Education	Overview of philosophical and theoretical foundations of bilingual education and ESL models of instruction. Other topics include significant legislative and judicial measures.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	407	SEI for Secondary Students	Examines foundations, assessment, English language learner proficiency standards, and strategies (including SEI) for the 7-12 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	408	SEI for Linguistically Diverse Learners	Examines foundations, assessment, English language learner proficiency standards, and strategies (including SEI) for the K-8 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	409	Methods in Language-Sensitive Content Teaching	Methods course for bilingual and ESL preservice students. Examines the role of language and culture in teaching, program types, and general strategies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	409	Methods in Language-Sensitive Content Teaching	Methods course for bilingual and ESL preservice students. Examines the role of language and culture in teaching, program types, and general strategies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Early Childhood Education student; GPA >=2.5
BLE	410	Lang Arts/Lit/Lang-Navajo/Eng	Provides foundational concepts for language and literacy development in bilingual (Navajo/English) K-8 settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		
BLE	413	Second-Language Literacy 2 in Elementary Schools	Literacy and language arts instruction; assessment of reading and writing; transition literacy skills, particularly critical reading of content.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 414, EED 411, EED 412, EED 496 OR PDS (Professional Development School) student
BLE	414	Reading Methods, Management, and Assessment in BLE/ESL Settings	Teaching and assessing reading with emphasis on integrated curriculum and literature-based instruction for BLE/ESL learners. Strategies for decoding (phonics), vocabulary, comprehension, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	414-W	Bilingual/ESL Curriculum and Organization	ESL curriculum content and organization, including program model effectiveness, language assessment and language usage, special needs and parent involvement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, EED 411, EED 412, EED 496 OR PDS (Professional Development School) student as appropriate
BLE	420	Science Methods, Management, and Assessment in BLE/ESL Settings	Methods, management strategies, and assessment procedures for teaching science to BLE/ESL students in elementary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	433	Language Arts Methods, Management, and Assessment in Elementary BLE/ESL Settings	Social nature of oral and written, first- and second-language acquisition and congruent teaching, management, assessment practices in BLE/ESL settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student with a GPA of at least 2.50; Must have completed BLE 408 (or BLE 409), BLE 420, MCE 447 and BLE 480 with a grade of C or greater or be currently enrolled; Co-requisites: BLE 414, 481, 496 and SPE 416
BLE	455	Social Studies Methods, Management, and Assessment in Elementary BLE/ESL Settings	Examines methods, classroom management strategies, and assessment techniques for social studies instruction in elementary BLE/ESL classes.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	470	Student Teaching Seminar	Concurrent course with the student teaching experience that provides support, content, and critical evaluation opportunities directly related to teaching practices.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
BLE	478	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
BLE	478-W	Student Teaching in Diverse Language Classrooms	Student teaching in diverse language classrooms. Focuses on use of English language learning and bilingual strategies; integrates all previous course work.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Co-requisites: BLE 479 OR PDS (Professional Development School) student
BLE	479	Capstone Seminar in Bilingual/ESL Education	Reflective, experience-based integration of theory and practice; professional development for bilingual/ESL teachers.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: BLE 478 OR PDS (Professional Development School) student
BLE	480	Mathematics Methods, Management, and Assessment in Elementary BLE/ESL Settings	Teaching, management, and assessment of mathematics in K-8 BLE/ESL settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	481	Reading Practicum	Applies concepts from BLE 414. Supervised school-based experiences in teaching reading to BLE/ESL students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student with a GPA of at least 2.50, Must have completed BLE 408, BLE409, BLE420, BLE480 and MCE447 with a grade of C or better or be currently enrolled; Co-requisites: BLE414, BLE433, BLE496 and SPE416
BLE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
BLE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		

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BLE	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	496	Field Experience	Applies course content in a bilingual/ESL school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Initial Teacher Certification Program Admission
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BLE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BME	100	Introduction to Bioengineering	Introduces profession of bioengineering: bioengineering design process, teaming, computer models in bioengineering, communications skills, career planning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	2.		Pre-requisites: Bioengineering and Pre-Med Engineering students only; Pre- or Co-requisite: ENG 101, or ENG 105, or ENG 107 with D or better or currently enrolled
BME	111	Engineering Perspectives on Biological Systems	Biological concepts for the emerging engineer. Introduces biological and earth systems engineering, materials, structures, fluid mechanics, bioelectricity, and the dynamic, nonlinear nature of nature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisite: Engineering student
BME	112	Engineering Perspectives on Biological Systems Laboratory	Introduces biological concepts for the emerging engineer in a lab setting: biological and earth systems engineering, materials, structures, fluid mechanics, bioelectricity, and the dynamic, nonlinear nature of nature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		Pre-requisite: Engineering student
BME	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	200	Conservation Principles in Bioengineering	Applies bioengineering analysis and problem solving of mass, energy, and charge balances to medical and biological systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-Med Engineering students; CHM 114 or CHM 116 completed with D or better; PHY 131/132 (with a D or better if completed); BIO 188(or BME 111/112) with a D or better; Pre-or Co-requisite:MAT 275
BME	202	Global Awareness within Biomedical Engineering Design	Introduces ethical, legal, social, economic, and technical issues arising from the design and implementation of bioengineering technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.	L or HU	Pre-requisites: Engineering students OR have a minimum cumulative GPA of 2.50; ENG 102, 105 or 108 completed with a grade of C or greater or be currently enrolled; ECN 111 or ECN 112 AND either ECE 100, 106 or 194 completed with a grade of D or greater
BME	235	Physiology for Engineers	Physiology of the nervous, muscular, cardiovascular, endocrine, renal, and respiratory systems. Emphasizes use of quantitative methods in understanding physiological systems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-reqs: Bioengineering or pre-Med Engineering; BIO 181 or BIO 188 with a D or greater, CHM 115, CHM 116 or CHM 118 with a D or greater; PHY 131 with a D or greater, or co-enrolling in
BME	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6		

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BME	300	Bioengineering Product Design	The fundamentals of financial and organizational structure of business and how it influences bioengineering analysis, design, and decision making; biomedical ethics and device and drug regulation; and fundamentals of business and technical management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE Junior, Senior or Post-Bac; BME 100 with C or better; ENG 102, 105 or 108 with C or better
BME	318	Biomaterials	Material properties of natural and artificial biomaterials. Tissue and blood biocompatibility. Uses of materials to replace body parts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE student; BME 235 with a C or better
BME	331	Bioengineering Transport Phenomena	Transport phenomena with emphasis on momentum, energy, and mass transport in living systems, medical devices, and other therapeutic/diagnostic applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 212 (or ECE 214), MAT 274 (or MAT 275) and CHM 341 with D or better; BME 200 with C or better
BME	350	Signals and Systems for Bioengineers	Applies principles of calculus and ordinary differential equations to analysis and computer processing of biosignals and linear modeling of biosystems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BSE/BS students; EEE 202 (or ECE 201) with D or better; MAT 274 or MAT 275 with D or better; Pre- or Co-requisite: MAT 342 or MAT 343 (with D or better if completed)
BME	370	Microcomputer Applications in Bioengineering	Uses microcomputers for real-time data collection, analysis, and control of experiments involving actual and simulated physiological systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: BS/BSE Engineering students only; BME 235, BME 350 with a C or better or currently enrolled
BME	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	411	Biomedical Engineering I	Reviews diagnostic and prosthetic methods using engineering methodology. Introduces transport, metabolic, and autoregulatory processes in the human body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BSE/BS students; Minimum GPA of 2.50; BME 334 with C or better
BME	412	Biomedical Engineering II	Reviews electrophysiology and nerve pacing applications. Introduces biomechanics and joint/limb replacement technology, cardiovascular and pulmonary fluid mechanics, and the application of mathematical modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BSE/BS students; Minimum cumulative GPA of 2.50
BME	413	Biomedical Instrumentation	Principles of medical instrumentation. Studies of medical diagnostic instruments and techniques for the measurement of physiological variables in living systems. Both BME 413 and BME 423 need to be taken together to secure L General Studies credit.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.	L	Pre-requisites: Engineering BSE or BS student; BME 235, BME 350 and BME 370 with C or better; Pre/Co-requisite: BME 423 with C or better if completed
BME	415	Biomedical Transport Processes	Principles of momentum, heat, and mass transport with applications to medical and biological systems and medical device design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.0; MAT 274 with a D or better or currently enrolled; PHY 116 or PHY 131 with a D or better or currently enrolled in PHY 131 OR Graduate Engineering student
BME	416	Biomechanics	Mechanical properties of bone, muscle, and soft tissue. Static and dynamic analysis of human movement tasks such as locomotion.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE student; BME 318 with C or better or currently enrolled; MAE 212 with D or better or currently enrolled
BME	417	Biomedical Engineering Capstone Design I	Technical, regulatory, economic, legal, social, and ethical aspects of medical device systems engineering design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.	L	Pre-reqs: BME 100 or 101 with C or better or currently enrolled; BME 300 (or ECE 300) with C or better or currently enrolled; Pre or Co-req: 5 of the following: MAE 240 or IEE 380 (with D or better) or BME 318, 331, 350, 370, 413 (with C or better)
BME	419	Biocontrol Systems	Applies linear and nonlinear control systems techniques to analysis of neuromusculoskeletal, cardiovascular, thermal, and mass transfer systems of the body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS or BSE student; BME 350 and BME 370 with C or better
BME	423	Biomedical Instrumentation Laboratory	Lab experience with problems, concepts, and techniques of biomedical instrumentation in static and dynamic environments. Both BME 413 and BME 423 need to be taken together to secure L General Studies credit. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.	L	
BME	434	Applications of Bioengineering Transport Phenomena	Develops mathematical models of transport phenomena in physiological systems, medical devices, and pharmacokinetic analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.0; BME 331 or CHE 331 completed with C or better or currently enrolled or ECE 380 completed with a D or better
BME	451	Cell Biotechnology Laboratory	Mammalian cell culture techniques, including mouse embryonic stem cells, the use of bioreactors, cell fractionation, and digital video imaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-med BS/BSE Engineering students; BIO 353 with a D or better
BME	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	490	Biomedical Engineering Capstone Design II	Individual projects in medical systems or medical device design and development. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.0; BME 417 completed with C or better or currently enrolled
BME	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6		
BME	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6	L	Pre-requisites: Must be an Honors student
BME	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	496	Professional Seminar	Professional and ethical aspects with a discussion of responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		

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BME	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-7		Pre-requisite: Bioengineering or Pre-Med Engineering BS or BSE student
BME	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	511	Biomedical Engineering I	Diagnostic and prosthetic methods using engineering methodology. Transport, metabolic, and autoregulatory processes in the body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	512	Biomedical Engineering II	Electrophysiology and nerve pacing applications. Introduces biomechanics and joint/limb replacement, technology, cardiovascular and pulmonary fluid mechanics, and mathematical modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	513	Biomedical Instrumentation	Principles of medical instrumentation. Studies of medical diagnostic instruments and techniques for the measurement of physiologic variables in living systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	514	Advanced Biomedical Instrumentation	Principles of applied biophysical measurements using bioelectric and radiological approach.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	515	Biomedical Transport Processes	Principles of momentum, heat, and mass transport with applications to medical and biological systems and medical device design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	516	Topics in Biomechanics	Mechanical properties of bone, muscle, and soft tissue. Static and dynamic analysis of human movement tasks, including in-depth project.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	518	Introduction to Biomaterials	Topics include structure property relationships for synthetic and natural biomaterials, biocompatibility, and uses of materials to replace body parts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	519	Topics in Biocontrol Systems	Linear and nonlinear control systems analysis of neuromusculoskeletal, cardiovascular, thermal, and mass transfer systems of the body, including in-depth project.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	520	Bioelectric Phenomena	Study of the origin, propagation, and interactions of bioelectricity in living things; volume conductor problem, mathematical analysis of bioelectric interactions, and uses in medical diagnostics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	521	Neuromuscular Control Systems	Overview of sensorimotor brain structures. Application of nonlinear, adaptive, optimal, and supervisory control theory to eye-head-hand coordination and locomotion.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	522	Biosensor Design and Application	Theory and principles of biosensor design and application in medicine and biology. Principles of measurements with biosensors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	523	Physiological Instrumentation Lab	Lab experience with problems, concepts, and techniques of biomedical instrumentation in static and dynamic environments.	N	LAB	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		Pre-requisites: Graduate Engineering students only
BME	524	Fundamentals of Applied Neural Control	Fundamental concepts of electrical stimulation and recording in the nervous system with the goal of functional control restoration.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	525	Surgical Techniques	Principles of surgical techniques, standard operative procedures, federal regulations, guidelines, and state-of-the-art methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	2.		Pre-requisites: Graduate Engineering students only
BME	532	Prosthetic and Rehabilitation Engineering	Analysis and critical assessment of design and control strategies for state-of-the-art medical devices used in rehabilitation engineering.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	533	Transport Processes I	Unified treatment of momentum, heat, and mass transfer from molecular theory, and continuum points of view. Continuum equations of microscopic and macroscopic systems and multicomponent and multiphase systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	534	Transport Processes II	Continuation of BME 533 or CHE 533, emphasizing mass transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	543	Thermodynamics of Chemical Systems	Classical and statistical thermodynamics of nonideal physicochemical systems and processes; prediction of optimum operating conditions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	544	Chemical Reactor Engineering	Reaction rates, thermodynamics, and transport principles applied to the design and operation of chemical reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	551	Movement Biomechanics	Mechanics applied to the analysis and modeling of physiological movements. Computational modeling of muscles, tendons, joints, and the skeletal system with application to sports and rehabilitation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	566	Medical Imaging Instrumentation	Design and analysis of imaging systems and nuclear devices for medical diagnosis, therapy, and research. Lab experiments using diagnostic radiology, fluoroscopy, ultrasound, and CAT scanning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	568	Medical Imaging	CT, SPECT, PET, and MRI. 3-D in vivo measurements. Instrument design, physiological modeling, clinical protocols, reconstruction algorithms, and quantitation issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BME	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		Pre-requisites: Graduate Bioengineering students only
BME	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-15		
BME	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-15		
BMI	465	Introduction to Comparative Genomics	Explores genomic sequences and hypotheses for their structure, evolutionary history, and underlying mechanisms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		
BMI	466	Bioinformatics and Molecular Evolution	Fundamental biological motivation and methods used in bioinformatics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		
BMI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	1-4		
BMI	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		
BMI	501	Introduction to Biomedical Informatics	Overview of the field of biomedical informatics for use of computers and information in healthcare and the biomedical sciences.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		
BMI	502	Foundations of Biomedical Informatics Methods I	First semester of a two-semester course surveying the methods and theories underlying the field of biomedical informatics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		
BMI	505	Foundations of Biomedical Informatics Methods II	Second semester of a two-semester course surveying the methods and theories underlying the field of biomedical informatics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		Pre-requisites: BMI 502 with a D or better or currently enrolled

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BMI	511	Decision Support and Evidence-Based Practice	Biomedical decision making and the tools and techniques for decision support, including artificial intelligence and machine learning techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		
BMI	515	Advanced Biostatistical Methods	Understanding biomedical data; how to use statistical methods and software to correctly analyze biomedical data.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		
BMI	516	Advanced Biomedical Data Analysis	Acquisition, conversion and organization of biological data into relevant diagnostic, therapeutic, and research information using information extraction and data mining.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		Pre-requisites: BMI 501 with D or better or currently enrolled
BMI	520	Modeling Gene Regulatory Networks	Computational and mathematical modeling used to approximate gene regulatory networks as well as signaling pathways and inference of model parameters.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		Pre-requisites: BMI 505 and BMI 516 with D or better or currently enrolled
BMI	540	Problem Solving in Biomedical Informatics	Theory and practice of software engineering principles as they apply to large- and medium-scale clinical systems from bench to bedside.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		Pre-requisite: BMI 501 with D or better or currently enrolled
BMI	541	Cognition and Decision Making in Healthcare	Conceptual and methodological issues in cognitive science and medical informatics, including design and use of technology in medical settings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		Pre-requisite: BMI Graduate student
BMI	555	Medical Information Management	Database theory and information management systems with applications to biomedical domain, including use of databases in the Web context.	N	LEC	N	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	3.		Pre-requisites: CSE 412 with D or better or currently enrolled
BMI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	Y	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		Pre-requisite: BMI Graduate student
BMI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		
BMI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	GNA	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		Pre-requisite: Biomedical Informatics Masters student
BMI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		Pre-requisites: Biomedical Informatics graduate student
BMI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		
BMI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		
BMI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Ira A. Fulton Engineering	Biomedical Informatics Program	1.		
BMI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	1-4		
BMI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		Pre-requisite: Biomedical Informatics Masters student
BMI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		
BMI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Biomedical Informatics Program	1-15		
BMI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Ira A. Fulton Engineering	Biomedical Informatics Program	1-15		
BUA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	300	Career Management	Provides professional program business administration students with information on ASU business-related courses, business careers, interviewing, job hunting, and resumé skills.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	1.		
BUA	330	Organizational Leadership	Strategies, skills, and techniques that promote successful leadership within organizations. Practice leadership skills and self-discovery in preparation for leadership positions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	380	Small Business Leadership	Develops leadership skills needed to form, lead, and operate a small business. Emphasizes creating a vision, research, and problem solving.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		

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BUA	381	Small Business Accounting and Finance	Accounting and finance skills needed by small business owners to acquire, allocate, and track monetary resources and evaluate performance.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	382	Small Business Sales and Market Development	Building and maintaining customers, developing a market identity and a niche, and the importance of sales.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	383	Small Business Working Relationships	Addresses communication and the people in a business--clients, employees, suppliers, competitors, governments, family, and self development.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	384	Small Business Operations and Planning	Planning and executing plans--the what, when, where, how, and who from product/service/project idea to pay back or completion.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-Requisites: Cannot be Agriculture Business Administration BS student; Must have a minimum of 47 total earned hours; Must have a minimum cumulative GPA of 2.0; Must have completed BUA 380 with a grade of D or better or co-enrolled
BUA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	440	Strategic Management	Strategic formulation and administration of the total organization, including integrative analysis and strategic plan; interrelationship of business functional areas.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	441	Entrepreneurship and Feasibility	Assessment of the opportunities, risks, and challenges associated with business start-up and continued operation.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey Business BS student or West Global Mgt student with Prof status; 75 minimum earned hours
BUA	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-6	L	Pre-requisites: Must be an Honors student
BUA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-7		
BUA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-12		
BUE	502	Organization and Management of Cooperative Programs	Work-study programs for business occupations in high schools and community colleges.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites: Must be Post-Bach UG, non-degree Grad or Degree Grad
BUE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
BUE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
BUE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BUE	480	Teaching Business Subjects	Organization and presentation of appropriate content for business subjects in the secondary school.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BUE	481	Technology in Business and Vocational Education	Emerging curricula and instructional technology in business and vocational education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BUE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
BUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		

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BUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
BUS	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
BUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-7		
BUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
BUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	0.5-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	0.5-12		
BUS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
BUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student

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BUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
BUS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
CBS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
CBS	520	Modeling and Computational Biology	Key mathematical and computational techniques for bioinformatics. Numerical and visualization software; scripting, database management.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		
CBS	521	Applications and Complex Problem Solving in Computational Biology	Continuation of CBS 520. Key mathematical concepts. Team solution of bioinformatics applications, project writing, and presentation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		
CBS	530	Introduction to Structural and Molecular Biology	Structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		
CBS	540	Functional Genomics	Functional relevance of genomic sequences; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
CBS	572	Data Mining	Advanced data mining techniques: classification, clustering, association, preprocessing; performance evaluation; information assurance, Web mining, security and privacy issues, and other applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
CBS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
CBS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
CCS	300	Chicana and Chicano Culture and Society	Intensive analysis of how Mexican American writers, artists, film makers, entertainers, and academicians have interpreted aspects of the Chicana and Chicano experience.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
CCS	446	Teaching Chicana and Chicano Studies in the Schools	Approaches/techniques for infusion of Chicana and Chicano Studies content into elementary and secondary curriculum; designed for teachers who work with Chicana and Chicano students.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
CDE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Freshman Standing; Maximum 25 hours

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CDE	232	Human Development	Lifespan development from conception through adulthood, with emphasis on family influences. Recognition of individuality within the universal pattern of development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
CDE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	337	Early Childhood Intervention	Explores how child development theory affects practice with children and families, emphasizing development of young children and early intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	338	Child Development Practicum	Supervised practicum in the Child Development Lab preparing students for work in child care centers and agencies serving young children and families. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	2-4		
CDE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	430	Infant/Toddler Development in the Family	Examines the development of infants/toddlers, the socialization processes of families, and the interactions of these processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
CDE	437	Infant Family Assessment and Observation	Examines strategies for implementing developmental assessments and observations of young children and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
CDE	444	Risk and Variation in Child Development	Impact that constitutional and environmental risk factors have on young children and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
CDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
CDE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		
CDE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
CDE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	531	Theoretical Issues in Child Development	Major developmental theories, related research, and their application to family interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	533	Research Issues in Child Development	In-depth exploration and critique of research focusing on child development in a family setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	534	Risk and Resilience in Children and Adolescents	Integrates child development, family theory, and research to understand risk and resilience in children and adolescents.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: CDE 531; FAS 500
CDE	570	Child Development for Infant Family Practice	Examines development during infancy and early childhood with an emphasis on social and emotional development, mental health, and early parent-child relationships.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	571	Infant Mental Health for Infant Family Practice	Surveys the biological and environmental risk factors that jeopardize the mental health of infants and young children; overview of prevention and intervention strategies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	572	Assessment of Infants, Toddlers, and Families for Infant Family Practice	Developmentally appropriate assessment of mental disorders and developmental disabilities in infants, toddlers, and preschool children and parent-child relationships.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	573	Cultural Competence for Infant Family Practice	Examines cultural issues impacting parent-child relationships and child rearing and the effectiveness of infant mental health and early intervention services on families of various ethnic and cultural backgrounds.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	574	Observation and Reflection for Infant-Family Practice	Strategies for observing infant behavior and parent-child relationships and skills for reflective, relationship-based intervention.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	575	Advanced Observation and Reflection for Infant-Family Practice	Advanced strategies for observing infant behavior and parent-child relationships and skills for reflective relationship-based intervention.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	576	Applied Research Methods for Infant Family Practice	Survey and critical examination of child development, parent-child relationships, family relationships, and early intervention research and the application to IFP.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CDE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
CDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	634	Prevention and Child Development	Advanced training in research and theory-based approaches to developing and evaluating prevention programs for children at risk.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Prerequisite: CDE 534
CDE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
CDE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	THE	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
CDE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
CDE	232	Human Development	Lifespan development from conception through adulthood, with emphasis on family influences. Recognition of individuality within the universal pattern of development.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		SB
CED	111	Exploration of Education	Education as an instrument in the development of the individual and society, and its significance as an American institution.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		SB
CED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
CED	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		

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CED	250	Career Development	Covers models of the individual, the world of work, and decision making with emphasis on individual application.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	L	
CED	294	Special Topic	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	L	Pre-requisites: Must be an Honors student
CED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-7		
CED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
CED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	512	Introduction to Helping Relationships	Introduces the skills used in the helping professions and examines the settings in which they occur.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CED	522	Theories of Counseling and Psychotherapy	Presents major theories of psychological intervention as well as underlying personality theory upon which they are based.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	523	Psychological Tests	Standardized tests in the study of the individual, with emphasis on test score interpretation in counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	525	Introduction to Program Evaluation	Introduces the major approaches and methods of designing and conducting program evaluations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: COE 501
CED	527	Community Counseling	Community focus with emphasis on outreach, prevention, psychoeducation, consulting, and advocacy from a systematic multicultural perspective.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	528	School Counseling	Introduces counseling within multicultural settings. Emphasizes counseling, consultation, and coordination skills needed for schools' comprehensive developmental guidance programs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	529	Lifespan Human Development	Issues and models of human development as it occurs across the lifespan.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CED	534	Occupations and Careers	The world of work, career development, education, and training for occupational entry and mobility.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	545	Analysis of the Individual	Theory and methods commonly used in studying the individual. Observational methods, diagnostic interviews, structured, and semi-structured methods for assessing personality.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	567	Group Dynamics and Counseling	Group process factors, theory, and diversity issues determining effective interaction in small groups. Emphasis placed on lecturettes, self awareness, and experiential components.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	577	Counseling Prepracticum	Focus on racial, social, and cultural factors in the development of helping relationships through integration of cognitive and affective self-awareness with counseling skills.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling Psychology MC or PhD student
CED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	655	Student Development Programs in Higher Education	Emerging conceptual models of student development. Overview of student personnel and student affairs programs in community colleges, four-year colleges, and universities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: must be a graduate student (non-degree or degree seeking)
CED	672	Marriage and Family Counseling	Introduces marriage and family counseling theories. Emphasizes a systems-communication model utilizing cocounseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

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CED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CEE	100	Introduction to Civil and Environmental Engineering	Introduces basics of civil and environmental engineering design, team work, ethics, communication and management skills, modeling, problem solving, computer applications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	2.		Pre-requisites: Civil Engineering students only
CEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		
CEE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	210	Engineering Mechanics I: Statics	Force systems, resultants, equilibrium, distributed forces, area moments, fluid statics, internal forces, friction, and stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 100 with C or better; MAT 266 (or MAT 271) with C or better; PHY 121 with C or better; PHY 122 with C or better
CEE	212	Engineering Mechanics II: Dynamics	Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 210 and MAT 275 (or MAT 274) completed with C or better
CEE	213	Introduction to Deformable Solids	Strain-displacement and stress-strain-temperature relations. Stresses and deformations due to axial, shear, torsional and bending moments. Buckling, stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 210 (or CEE 211) with C or better; MAT 274 (or MAT 275) with C or better
CEE	281	Surveying	Theory and fieldwork in construction and land surveys. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	300	Engineering Business Practice	Engineering economic principles, cost/benefit analysis, project financing and delivery, management of engineering design, business practices, ethical and professional responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	L	Pre-requisites: BSE Civil Engineering students; CEE 213 (ECE 313) with D or better
CEE	312	Engrg Materials		N	LEC	N	CNV	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	2.		
CEE	321	Structural Analysis and Design	Statically determinate and indeterminate structures (trusses, beams, and frames) by classical and matrix methods. Introduces structural design. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 212 (or CEE 211) and CEE 213 (ECE 313) with D or better; Pre- or Co-requisite: CEE 384 or MAE 384
CEE	341	Fluid Mechanics for Civil Engineers	Fundamental principles and methods of fluid mechanics forming the analytical basis for water resources engineering. Conduit and open channel flow. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 212 (or CEE 211) and CEE 213 (or ECE 313) with D or better; Pre- or Co-requisite: CEE 384 or MAE 384
CEE	351	Geotechnical Engineering	Index properties and engineering characteristics of soils. Compaction, permeability and seepage, compressibility and settlement, and shear strength. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 213 (or ECE 313) with D or better
CEE	353	Civil Engineering Materials	Structure and behavior of civil engineering materials, including steel, aggregate, concrete, masonry, asphalt, wood, composites. Atomic structure and engineering applications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: BSE Civil Engineering students; CEE 213 (ECE 313) with D or better
CEE	361	Introduction to Environmental Engineering	Concepts of air and water pollution; environmental regulation, risk assessment, chemistry, water quality modeling, water and wastewater treatment systems designs. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 213 (ECE 313) and CHM 114 or CHM 116 with a D or better; Pre- or Co-requisite: IEE 380 (ECE380) with D or better if completed
CEE	372	Transportation Engineering	Fundamental background of highway and traffic engineering in the areas of planning, design, and operations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 213 (ECE 313) with D or better; Pre- or Co-requisite: IEE 380 (with D or better if completed)
CEE	384	Numerical Methods for Engineers	Numerical methods and computational tools for selected problems in engineering. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	CS	Pre-requisites: Engineering BSE students; MAT 274 or MAT 275 AND MAT 267 or MAT 272 with a grade of D or greater or be currently enrolled; MAT 267 or MAT 272 may be taken as a co-requisite
CEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	400	Earth Systems Engineering and Management	Introduces earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	(L or HU) & H	Pre-requisites: Engineering BS or BSE students; CEE 300 (or ECE 300) with a D or better OR non-Engineering juniors or seniors
CEE	412	Pavement Analysis and Design	Design of flexible and rigid pavements for highways and airports. Surface, base, and subgrade courses. Cost analysis and pavement selection. Credit is allowed for only CEE 412 or 511.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; completed CEE 351 and CEE 353 (ECE 351) with a grade of D or greater or be currently enrolled
CEE	420	Steel Structures	Behavior of structural components and systems. Design of steel members and connections. Load and resistance factor design methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 with a grade of D or greater or be currently enrolled
CEE	421	Concrete Structures	Behavior of concrete structures and the design of reinforced and prestressed concrete members, including footings. Partial design of concrete building system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 with a grade of D or greater or be currently enrolled
CEE	423	Structural Design	Analysis and design of reinforced concrete steel, masonry, and timber structures. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 421 with a grade of D or greater or be currently enrolled; Pre or Co-requisite: CEE 420, if completed must be with a grade of D or greater

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CEE	432	Developing Software for Engineering Applications	Matrix and computer applications to structural engineering and structural mechanics. Stiffness and flexibility methods, finite elements, and differences. Credit is allowed for only CEE 432 or 532.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 with a grade of D or greater or be currently enrolled
CEE	440	Engineering Hydrology	Descriptive hydrology; hydrologic cycle, models, and systems. Rain-runoff models. Hydrologic design. Concepts, properties, and basic equations of groundwater flow.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 341 with a grade of D or greater or be currently enrolled
CEE	441	Water Resources Engineering	Applies the principles of hydraulics and hydrology to the engineering of water resources projects; design and operation of water resources systems; water quality.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 341 with a grade of D or greater or be currently enrolled
CEE	452	Foundations	Applies soil mechanics to foundation systems, bearing capacity, lateral earth pressure, and slope stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 351 with a grade of D or greater or be currently enrolled
CEE	462	Unit Operations in Environmental Engineering	Design and operation of unit processes for water and wastewater treatment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 361 with a grade of D or greater or be currently enrolled
CEE	466	Urban Water System Design	Capacity; planning and design of water supply; domestic and storm drainage; and solid waste systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 341 and CEE 361 with a grade of D or greater or be currently enrolled
CEE	467	Environmental Microbiology	Overview of the microbiology of natural and human-impacted environment, microbial detection methodologies, waterborne disease outbreaks, risk assessment, and regulations. Credit is allowed for only CEE 467 or 567. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 361 or MIC 220 with a grade of D or greater or be currently enrolled
CEE	469	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 361 or CHE 334 with a grade of D or greater or be currently enrolled
CEE	474	Transportation Systems Planning	Transportation systems modeling procedures, travel characteristics analysis, traffic predictions, transportation systems management, and transit planning methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 372 and CEE 384 (ECE384) with a grade of D or greater or be currently enrolled
CEE	475	Highway Geometric Design	Design of visible elements of roadway, design controls, at-grade intersections, freeways, and interchanges. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 372 with a grade of D or greater or be currently enrolled
CEE	481	Civil Engineering Project Management	Civil engineering project management and administration, planning and scheduling, cost estimating and bidding strategies, financial management, quality control and safety, and computer applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 and CEE 351 and CEE 372 with a grade of D or greater or be currently enrolled
CEE	483	Highway Materials, Construction, and Quality	Properties of highway materials, including aggregates, asphalt concrete, and portland cement concrete; construction practice; material delivery, placement, and compaction; quality control. Credit is allowed for only CEE 483 or 583.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 351 and CEE 372 and CEE 353 (ECE 351) with a grade of D or greater or be currently enrolled
CEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	486	Integrated Civil Engineering Design	Requires completion of a civil engineering design in a simulated practicing engineering environment. Limited to undergraduates in their final semester.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	L	Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 and CEE 341 and CEE 351 and CEE 361 and CEE 372 with a grade of D or greater or be currently enrolled
CEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-6		Pre-requisites: Honors students only
CEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-6	L	Pre-requisites: Engineering Honors students only
CEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-7		
CEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		
CEE	511	Pavement Analysis and Design	Design of flexible and rigid pavements for highways and airports. Surface, base, and subgrade courses. Cost analysis and pavement selection. Credit is allowed for only CEE 511 or 412.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Graduate Civil Engineering students only
CEE	512	Pavement Performance and Management	Pavement management systems, including data collection, evaluation, optimization, economic analysis, and computer applications for highway and airport design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Graduate Civil Engineering student
CEE	514	Bituminous Materials and Mixture	Types of bituminous materials used in pavement mixtures. Chemical composition, physical properties, desirable aggregate characteristics, optimum asphalt contents, superpave asphalt binder, mixture design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Graduate Civil Engineering student

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CEE	515	Properties of Concrete	Materials science of concrete. Cement chemistry, mechanisms of hydration, interrelationships among micro- and macro-properties of cement-based materials. Mechanical properties, failure theories, fracture mechanics of concrete materials. Cement-based composite materials and the durability aspects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	516	Sustainable Energy and Material Use	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	521	Stress Analysis	Introduces tensors: kinematics, stress analysis, and constitutive assumptions leading to elastic and plastic behavior. Strain energy and energy methods; applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	522	Experimental Stress Analysis	Specification and analysis of stress and strain at a point, stress-strain relationships. Mechanical, optical, and electrical strain gages and circuits, digital data acquisition and analysis, closed loop mechanical testing, fracture mechanics, optical methods and photoelasticity, and introduction to nondestructive testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	524	Advanced Steel Structures	Strength properties of steel and their effects on structural behavior. Elastic design of steel structures. Plastic analysis and design of beams, frames, and bents. Plastic deflections. Plastic design requirements. Multistory buildings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	526	Finite Elements for Engineers	Direct stiffness, method of weighted residuals, weak formulation, and variational techniques in the solution of engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		Pre-requisite: Engineering CEE Graduate student
CEE	527	Advanced Concrete Structures	Ultimate strength design. Combined shear and torsion. Serviceability. Plastic analysis. Special systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	530	Prestressed Concrete	Materials and methods of prestressing. Analysis and design for flexure, shear, and torsion. Prestress losses due to friction, creep, shrinkage, and anchorage set. Statically indeterminate structures. Design of flat slabs, bridges, and composite beams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	532	Developing Software for Engineering Applications	Fundamentals of engineering software development and object-oriented programming. Programming in C++. Development of matrix toolbox. Introduces finite element method. Computer graphics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Engineering CEE Graduate Students Only
CEE	533	Structural Optimization	Linear and nonlinear programming. Problem formulation. Design sensitivity analysis. FEM-based optimal design of structural and mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	536	Structural Dynamics	Free vibration and forced response of discrete and continuous systems, exact and approximate methods of solution, response spectra, computational techniques, special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	537	Topics in Structural Engineering	Advanced topics, including nonlinear structural analysis, experimental stress analysis, advanced finite elements, plasticity and viscoelasticity, composites, and damage mechanics.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		Pre-requisites: Engineering CEE Graduate Students Only
CEE	540	Groundwater Hydrology	Physical properties of aquifers, well pumping, subsurface flow modeling, unsaturated flow, numerical methods, land subsidence, and groundwater pollution.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	541	Surface Water Hydrology	Hydrologic cycle and mechanisms, including precipitation, evaporation, and transpiration; hydrograph analysis; flood routing; statistical methods in hydrology and hydrologic design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	543	Water Resources Systems	Theory and application of quantitative planning methodologies for the design and operation of water resources systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	544	Water Policy and Management	Covers water policy and management focused on Arizona. Useful to anyone looking for a general background on water issues in Arizona or considering a career in water resources and environmental engineering, planning, or public policy. Divided into three major sections: the history of water resources development and hydrology of Arizona; water management in Arizona; and an examination of current issues and controversies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	546	Free Surface Hydraulics	Derivation of 1-D equations used in open channel flow analysis; computations for uniform and nonuniform flows, unsteady flow, and flood routing. Mathematical and physical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	547	Principles of River Engineering	Uses of rivers, study of watershed, and channel processes. Sediment sources, yield, and control; hydrologic analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	548	Sedimentation Engineering	Introduces the transportation of granular sedimentary materials by moving fluids. Degradation, aggregation, and local scour in alluvial channels. Mathematical and physical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	550	Soil Behavior	Physicochemical aspects of soil behavior, stabilization of soils, and engineering properties of soils.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student

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CEE	551	Advanced Geotechnical Testing	Odometer, triaxial (static and cyclic) back pressure saturated and unsaturated samples, pore pressure measurements, closed-loop computer-controlled testing, in-situ testing, and sampling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	553	Advanced Soil Mechanics	Applies theories of elasticity and plasticity to soils, theories of consolidation, failure theories, and response to static and dynamic loading.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	554	Shear Strength and Slope Stability	Shear strength of saturated and unsaturated soils strength-deformation relationships, time-dependent strength parameters, effects of sampling, and advanced slope stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	555	Advanced Foundations	Deep foundations, braced excavations, anchored bulkheads, reinforced earth, and underpinning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	556	Seepage and Earth Dams	Transient and steady-state fluid flow through soil, confined and unconfined flow, pore water pressures, and application to earth dams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	557	Geoenvironmental Engineering	Environmental site assessment, solid waste management, waste containment system design, soil and groundwater remediation, soil erosion control, brownfields development.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	559	Earthquake Engineering	Characteristics of earthquake motions, selection of design earthquakes, site response analyses, seismic slope stability, and liquefaction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	560	Soil and Groundwater Remediation	Presents techniques for remediation of contaminated soils and groundwaters with basic engineering principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	561	Physical-Chemical Treatment of Water and Waste	Theory and design of physical and chemical processes for the treatment of water and wastewaters.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3-4		Pre-requisite: Engineering CEE Graduate student
CEE	562	Environmental Biochemistry and Waste Treatment	Theory and design of biological waste treatment systems. Pollution and environmental assimilation of wastes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3-4		Pre-requisite: Engineering CEE Graduate student
CEE	563	Environmental Chemistry Laboratory	Analyzes water, domestic and industrial wastes, lab procedures for pollution evaluation, and the control of water and waste treatment processes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	564	Contaminant Fate and Transport	Fate and transport processes with emphasis on governing equations and parameters relevant to the migration of chemicals in the environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	566	Industrial/Hazardous Waste Treatment	Emphasizes treatment of local industrial/hazardous waste problems, including solvent recovery and metals.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	567	Environmental Microbiology	Overview of the microbiology of natural and human-impacted environment, microbial detection methodologies, waterborne disease outbreaks, risk assessment, and regulations. Credit is allowed for only CEE 567 or 467.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	568	Unit Processing in Environmental Engineering	Design and operation of unit processes for water and wastewater treatment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	569	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CEE 569 or 469.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	573	Transportation Operations	Driver, vehicle, and roadway characteristics; traffic control devices; traffic engineering studies; and transportation system management measures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	574	Highway Capacity	Highway capacity for all functional classes of highways. Traffic signalization, including traffic studies, warrants, cycle length, timing, phasing, and coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	576	Highway Geometric Design	Design of visible elements of roadway, design controls, at-grade intersections, freeways, and interchanges.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Engineering CEE Graduate student
CEE	581	Advanced Earth Systems Engineering and Management	Advanced introduction to earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	582	Industrial Ecology and Design for Sustainability	The conceptual, ethical, and practical challenges in the design, manufacture, and life cycle performance of products; environmental evaluation via materials flow analysis and life cycle assessment; global economic, environmental, cultural, and social aspects of competitive and functional product development and manufacture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student

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CEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Engineering CEE Graduate student
CEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student
CEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1.		Pre-requisite: Civil Engineering MS or MSE student
CEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		Pre-requisite: Engineering CEE Graduate student
CEE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student
CEE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering PhD student
CEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-15		Pre-requisite: Civil Engineering PhD student
CEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1.		Pre-requisite: Civil Engineering PhD student
CEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-15		Pre-requisite: Civil Engineering PhD student
CET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
CET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
CET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
CET	298	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-6		
CET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
CET	492	Honors Directed Study		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6		
CET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student

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CET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
CET	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
CET	501	Digital Signal Processing Applications	Applies DSP techniques to the design and analysis of digital filters. Solution of filtering problems using computer techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
CET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
CET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
CET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
CET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
CET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
CET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
CET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
CET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		
CET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
CET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
CET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	INACTIVE - Department of Electronic Systems	1-4		
CET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	INACTIVE - Department of Electronic Systems	1-7		
CET	501	Digital Signal Processing Applications	Applies DSP techniques to the design and analysis of digital filters. Solution of filtering problems using computer techniques.	N	LEC	N	OPT	College of Tech & Innovation	INACTIVE - Department of Electronic Systems	3.		
CFA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-7		

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CFA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-3		
CFA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CHE	100	Introduction to Chemical Engineering	Introduces design in chemical engineering, teaming, chemical engineering profession, computer models, communication skills, quality and customer satisfaction. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	2.		Pre-requisite: Ira A. Fulton School of Engineering and University College student
CHE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	211	Introduction to Chemical Processing	Applies chemical engineering analysis and problem solving to chemical processes material and energy balance methods and skills.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Must have completed CHM 116 with a D or better; MAT 266 or MAT 271 with a grade of D or better
CHE	231	Introduction to Transport Phenomena I: Fluids	Transport phenomena, with emphasis on fluid systems. Credit is allowed for only CHE 231 or 501.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Must have completed CHE 211 and either MAT 266 or MAT 271 with a grade of D or greater or be currently enrolled
CHE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-6		Pre-requisites: Honors students only
CHE	334	Introduction to Transport Phenomena II: Heat and Mass Transfer	Applies heat and mass transport principles. Design of heat exchangers and continuous contactors. Credit is allowed for only CHE 334 or 502.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students only; Must have completed CHE 231 or 331 with a grade of D or greater or be currently enrolled
CHE	342	Introduction to Applied Chemical Thermodynamics	Applies conservation and accounting principles with nonideal property estimation techniques. Credit is allowed for only CHE 342 or 504.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 211 or CHE 311 with a grade of D or better or be currently enrolled; Pre or Co-requisite: MAT 267 or MAT 272, if completed must have a grade of D or better
CHE	352	Transport Laboratories	Introduces engineering lab equipment, data collection, and analysis; strengthens ability to generate written reports and oral presentations; reinforces teamwork skills; strengthens and extends the understanding of earlier technical contents in the curriculum. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	L	Pre-requisites: BS/BSE Engineering students
CHE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	432	Principles of Chemical Engineering Design	Multicomponent distillation, engineering economics, equipment sizing and costs, plant operation economics, and simulation and optimization techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; Must have completed CHE 334 and CHE 342 with a grade of D or greater or be currently enrolled OR Graduate Engineering students
CHE	433	Modern Separations	Design of modern separation equipment in chemical engineering other than fractionation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE students; CHE 334 and CHE 342 with a D or better or currently enrolled
CHE	442	Introduction to Chemical Reactor Design	Applies kinetics to chemical reactor design. Credit is allowed for only CHE 442 or 505.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE students; CHE 334 and CHE 342 with a D or better or currently enrolled
CHE	451	Chemical Engineering Laboratory	Operation, control, and design of experimental and industrial process equipment; independent research projects. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 334 and CHE 342 completed with a D or greater or be currently enrolled; ECE 384 or MAE 384 completed with a D or greater or currently enrolled in MAE 384 OR Graduate Engineering students
CHE	458	Semiconductor Material Processing	Introduces the processing and characterization of electronic materials for semiconductor applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE students; CHE 334 and CHE 342 with a D or better or currently enrolled

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CHE	461	Process Dynamic Control	Process dynamics, instrumentation, and feedback applied to automatic process control. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	CS	Pre-requisites: Engineering BS or BSE students; Must have completed MAT 274 or MAT 275 with a grade of D or greater or be currently enrolled OR Graduate Engineering students
CHE	462	Process Design	Applies economic principles to optimize equipment selection and design; development and design of process systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	L	Pre-requisites: Engineering BS or BSE students; Must have completed CHE 432, CHE 442 AND CHE 433 with a grade of D or greater or be currently enrolled OR Graduate Engineering students
CHE	469	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CHE 469 or 569.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	474	Chemical Engineering Design for the Environment	Conflict of processing materials and preserving the natural resources. Teaches students to understand and value the environment and attempt to control our impact.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; Must have completed either CHE 333 or 334 and CHE 342 with a grade of D or greater or be currently enrolled
CHE	475	Biochemical Engineering	Applies chemical engineering methods, mass transfer, thermodynamics, and transport phenomena to industrial biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE students only.
CHE	476	Bioreaction Engineering	Principles of analysis and design of reactors for processing with cells and other biologically active materials; applies reaction engineering in biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student OR Graduate Engineering student
CHE	477	Bioseparation Processes	Principles of separation of biologically active chemicals; the application, scale-up, and design of separation processes in biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with a minimum GPA of 3.00 OR Graduate Engineering student
CHE	478	Industrial Water Quality Engineering	Chemical treatment processing, quality criteria and control, system design, and water pollutants.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; Must have completed CHE 331 with a grade of D or greater or be currently enrolled; Seniors only
CHE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	490	Chemical Engineering Projects	Individual projects in chemical engineering operations and design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-5		Pre-requisite: Engineering BSE student
CHE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-6		Pre-requisites: Honors students only
CHE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-6	L	Pre-requisites: Honors students only
CHE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	496	Professional Seminar	Professional and ethical aspects with a discussion of responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-7		Pre-requisites: Engineering BS or BSE student OR Graduate Engineering student
CHE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	501	Introduction to Transport Phenomena I: Fluids	Transport phenomena, with emphasis on fluid systems. Credit is allowed for only CHE 501 or 231.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	502	Introduction to Transport Phenomena II: Heat and Mass Transfer	Applies heat and mass transport principles. Design of heat exchangers and continuous contactors. Credit is allowed for only CHE 502 or 334.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	504	Introduction to Applied Chemical Thermodynamics	Applies conservation and accounting principles with nonideal property estimation techniques. Credit is allowed for only CHE 504 or 342.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	505	Introduction to Chemical Reactor Design	Applies kinetics to chemical reactor design. Credit is allowed for only CHE 505 or 442.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in MSE 518, EEE 518, or MSE 475 you may not enroll in CHE 518
CHE	527	Advanced Applied Mathematical Analysis in Chemical Engineering	Formulation and solution of complex mathematical relationships resulting from the description of physical problems in mass, energy, and momentum transfer and chemical kinetics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	533	Transport Processes I	Unified treatment of momentum, heat, and mass transfer from molecular theory, and continuum points of view. Continuum equations of microscopic and macroscopic systems and multicomponent and multiphase systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Graduate Engineering student
CHE	534	Transport Processes II	Continuation of BME 533 or CHE 533, emphasizing mass transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	536	Convective Mass Transfer	Turbulent flow for multicomponent systems, including chemical reactions with applications in separations and air pollution.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		

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CHE	543	Thermodynamics of Chemical Systems	Classical and statistical thermodynamics of nonideal physicochemical systems and processes; prediction of optimum operating conditions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Graduate Engineering student
CHE	544	Chemical Reactor Engineering	Reaction rates, thermodynamics, and transport principles applied to the design and operation of chemical reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	552	Industrial Water Quality Engineering	Water pollutants, quality criteria and control, chemical treatment processing, and system design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	553	Air Quality Control	Air pollutant origins, effects, and control. Physical and chemical processes, including dispersion, combustion, sampling, control equipment design, and special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	561	Advanced Process Control	Dynamic process representation, linear optimal control, optimal state reconstruction, and parameter and state estimation techniques for continuous and discrete time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	569	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CHE 569 or 469.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		Pre-requisite: Graduate Engineering student
CHE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-15		
CHE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		

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CHE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Chemical Engineering Program	1-15		
CHI	101	First-Year Chinese I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills. Standard dialect. 5 class hours. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
CHI	102	First-Year Chinese II	See CHI 101. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:Must have completed CHI 101 with a grade of D or better or be currently enrolled
CHI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
CHI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	201	Second-Year Chinese I	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills. 5 class hours. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:Must have completed CHI 102 with a grade of D or better or currently enrolled
CHI	202	Second-Year Chinese II	See CHI 201. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:Must have completed CHI 201 with a grade of D or better or currently enrolled
CHI	205	Chinese Calligraphy	Introduces styles and techniques of Chinese writing. Requires no knowledge of Chinese or Japanese.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	301	Third-Year Chinese I	Expansion of proficiency in listening comprehension, speaking, reading, and writing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:CHI 202 with a grade of C or better or currently enrolled
CHI	302	Third-Year Chinese II	Continuation of CHI 301.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:CHI 301 with a grade of C or better or currently enrolled
CHI	307	Introduction to Literary Chinese I	Reading in various genres of pre-20th century literature (wen-yen), with analysis of the structure of the classical writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:CHI 302, or JPN 202, or KOR 202 with a grade of C or better or currently enrolled
CHI	308	Introduction to Literary Chinese II	Continuation of CHI 307.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:CHI 307 with a grade of C or better, or currently enrolled
CHI	309	Chinese Conversation	Aural/oral drills using contemporary stories, articles, and essays. For students with lower-level proficiency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites:Must have completed CHI 202 with a grade of D or better or currently enrolled
CHI	310	Chinese Conversation	See CHI 309.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites:CHI 202 with a grade of D or better or currently enrolled
CHI	311	Chinese Conversation	Intensive aural/oral practice in modern Chinese. For students who have lived in China or a Chinese-speaking environment.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		
CHI	312	Chinese Conversation	See CHI 311.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites:CHI 202 with a grade of D or better or currently enrolled
CHI	321	Chinese Literature	Masterworks of the tradition from the 7th century BCE through the 13th century. Readings, lectures, and examinations are in English.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	
CHI	322	Chinese Literature	Masterpieces from the later tradition and its transition to modern times. Readings, lectures, and examinations are in English.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
CHI	345	Chinese Film and Civilization	Screening and discussion of recent films from China, Taiwan, and Hong Kong in the context of modern Chinese civilization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	380	The Chinese Language	Introduces the Chinese languages from linguistic perspectives. Topics include the linguistic structure and characteristics (phonetics, phonology, morphology and syntax) of the Chinese language; linguistic history and dialects of Chinese; and its relationship with culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	461	Classical Vernacular Performance Literature	Readings in performance literature in colloquial Chinese. Bianwen, zhugongdiao, baojuan, zaju, chuanqi drama.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	482	History of the Chinese Language	Introduces the history of the Chinese language. Graduate/advanced undergraduate-level introductory course on the historical changes of the sounds, writing system, grammar, and other aspects of the Chinese language. Topics include the historical phonology of Chinese, development of graphs (Hanzi), some topics of syntactic changes in texts, morphology, lexicography, cultural implication of language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
CHI	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
CHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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CHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
CHI	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	514	Advanced Classical Chinese	Close readings in selected premodern texts, with focus on special grammatical features, and increased vocabulary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	520	Teaching of Chinese as a Second Language	Theory and practice of teaching Chinese, including presentation, interaction, and evaluation, with consideration given to cultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	535	Advanced Readings	Readings in primary and secondary sources in history, art, religious studies, economics, or other fields.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	543	Chinese Language and Linguistics	Analysis and discussion, within the framework of linguistic theory, of selected problems in Chinese phonetics, morphology, and syntax.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	585	Problems of Translation	Theories and practice of translation: strategies for handling a variety of Chinese texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	101	First-Year Chinese I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills. Standard dialect. 5 class hours. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	5.		
CHI	102	First-Year Chinese II	See CHI 101. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	5.		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		

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CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre-or Co-requisites: CHM 231 (with D or better if completed)
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-requisites: CHM 237 with D or better; Co-requisites: CHM 234
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	
CHM	107	Chemistry and Society	General chemical principles and concepts presented in context of social and technological issues, e.g., energy, pollution, global warming, and others. This is a lecture course which may be combined with the laboratory CHM 108 for those interested in lab course credit. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Credit earned for CHM 101 and any combination of CHM 107 and 108 cannot be used simultaneously. General Studies: SQ (if taken with CHM 108) & G	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	SQ & G	
CHM	108	Chemistry and Society Laboratory	Experiments in chemical principles presented in chemistry and society lectures (CHM 107). Students must complete both CHM 107 and CHM 108 to receive an SQ (General Studies).	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	
CHM	114	General Chemistry for Engineers	Chemical principles with emphasis toward engineering. Students without high school chemistry or chemical engineering majors must enroll in the CHM 113, 116 sequence instead of CHM 114. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	
CHM	115	General Chemistry with Qualitative Analysis	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Lab includes qualitative analysis. Credit is allowed for only CHM 115 or 116 or 118. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	5.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	
CHM	117	General Chemistry for Majors I	Atomic and molecular structure, properties and physical states of matter, chemical analysis, bonding, stoichiometry. Credit is allowed for only CHM 117 or 113. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	
CHM	118	General Chemistry for Majors II	Atomic and molecular structure, properties and physical states of matter, chemical analysis, bonding, stoichiometry. Credit is allowed for only CHM 118 or 115 or 116. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisites: CHM 117 with D or better; Co-requisite: MAT 270
CHM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
CHM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	SQ	
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 115, CHM 116 or CHM 118 with D or better
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites:CHM 233 with a grade of D or better
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	SQ	Pre-or Co-requisites: CHM 231 (with D or better if completed)
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Co-requisites: CHM 233
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: CHM 237 with D or better; Co-requisites: CHM 234

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CHM	240	Introduction to Physical Chemistry	Introduces mathematical/computational methods in chemical kinetics, thermodynamics, quantum chemistry. Mathematical-based computer lab. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	CS	Pre-requisites: MAT 272 or MAT 267 with C or better
CHM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		Pre-requisites: Must be an Honors student
CHM	302	Environmental Chemistry	Explores major environmental issues, problems, and solutions from analytical and chemistry perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	303	Environmental Chemistry Laboratory	Lab in environmental chemistry to complement CHM 302. First-hand experience with sampling methods, analytical techniques, and environmental lab methods. Both CHM 303 and CHM 348 must be taken to secure L General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.	L	Pre-requisites: CHM 231 or 233 with D or better; Pre-or Co-requisites: CHM 302 (with D or better if completed)
CHM	325	Analytical Chemistry	Principles and methods of chemical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	326	Analytical Chemistry Laboratory	Experiments in chemical analysis. Fee.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	327	Instrumental Analysis	Principles of instrumental methods in chemical analysis. Electroanalytical and optical techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 325 and CHM 326 with D or better; Pre- or Co-requisite: CHM 346 (with D or better if completed)
CHM	328	Instrumental Analysis Laboratory	Experiments in chemical analysis by electroanalytical and optical techniques. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		Co-requisites: CHM 327
CHM	332	General Organic Chemistry	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	333	Organic Chemistry for Majors I	Structures, reaction mechanisms and kinetics, and systematic syntheses of organic compounds. Credit is allowed for only CHM 333 or 231 or 233.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: Must be a Biochemistry or Chemistry student
CHM	334	Organic Chemistry for Majors II	Continuation of CHM 333. Credit is allowed for only CHM 334 or 234.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 333 with a C or better; Co-requisites: CHM 338
CHM	336	General Organic Chemistry Laboratory	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	337	Organic Chemistry Laboratory for Majors I	Emphasizes mechanisms, kinetics, and products of organic reactions. Credit is allowed for only CHM 337 or 237. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Must be a Biochemistry or Chemistry student; Must have completed CHM 317 or CHM 333 with a grade of C or greater or be currently enrolled OR Co-requisite of CHM 317 or CHM 333
CHM	338	Organic Chemistry Laboratory for Majors II	Continuation of CHM 337. Credit is allowed for only CHM 338 or 238. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Biochemistry or Chemistry student; CHM 337 with D or better; Co-requisites: CHM 334
CHM	341	Elementary Physical Chemistry	Thermodynamics, equilibrium, states of matter, solutions, and chemical kinetics. For students in premedical, biological, and educational curricula.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 115 (or 114 or 118 or 325) with D or better or currently enrolled; CHM 231 (or 233) with D or better or currently enrolled; MAT 271 with D or better or currently enrolled; PHY 112 with D or better or currently enrolled
CHM	343	Physical Chemistry Laboratory	Physical chemistry experiments. Credit is allowed for only CHM 343 or both CHM 348 and 349. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Co-requisites: CHM 341 or CHM 345
CHM	345	Physical Chemistry I	Introduces quantum chemistry with application to electronic structure and dynamics of atoms and molecules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	346	Physical Chemistry II	Introduces equilibrium and statistical thermodynamics. Laws of thermodynamics, equations of state, multicomponent chemical and phase equilibria, and electrochemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: Must have completed CHM 345 with a grade of C or better; Co-enroll in MAT 274
CHM	348	Physical Chemistry Laboratory I	Lab experiments in spectroscopy and computational chemistry. fee. To secure L General Studies credit the following must be taken: CHM 303 & CHM 348 or CHM 348 & CHM 349 & CHM 452.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	L	Pre- or Co-requisites: CHM 345 (with a D or better if completed)
CHM	349	Physical Chemistry Laboratory II	Lab experiments in thermodynamics, electrochemistry, and computational chemistry. CHM 348, CHM 349 and CHM 452 must be taken to secure L General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	L	Pre- or Co-requisites: CHM 346 (with D or better if completed)
CHM	392	Introduction to Research Techniques	Instrumental methods and philosophy of research by actual participation in chemical research projects. May be repeated for a total of 6 semester hours.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
CHM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	424	Separation Science	Basic theory and practical aspects of gas, liquid, ion-exchange, and gel-permeation chromatographies, and other important industrial and research techniques. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	433	Advanced Organic Chemistry I	Reaction mechanisms, reaction kinetics, linear free energy relationships, transition state theory, and Woodward-Hoffmann rules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	434	Advanced Organic Chemistry II	Continuation of CHM 433.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 433 or CHM 531 with a grade of D or better

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	435	Medicinal Chemistry	Principles of medicinal and pharmaceutical chemistry. Drug design, synthesis, and mechanism of action.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: BCH 361 (or BCH 461), BIO 353 and CHM 234 (or CHM 334) with a D or better; If you have credit for CHM 535, you may not enroll in CHM 535
CHM	452	Inorganic Chemistry Laboratory	Preparation and characterization of typical inorganic substances, emphasizing methods and techniques. CHM 348, CHM 349 and CHM 452 must be taken to secure L General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-2	L	
CHM	453	Inorganic Chemistry	Principles and applications of inorganic chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: Must have completed one of the following courses with a grade of D or greater: CHM 341, 345 or 441
CHM	460	Biological Chemistry	Structure and function of macromolecules and their involvement in the processing of energy and information by living cells.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	471	Solid-State Chemistry	Crystal chemistry, thermodynamics and electrochemistry of solids, nonstoichiometric compounds, diffusion and solid-state reactions, crystal growth, and selected topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	480	Methods of Teaching Chemistry	Organization and presentation of appropriate content of chemistry; preparation of reagents, experiments, and demonstrations; organization of stock rooms and laboratories; experience in problem solving. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	481	Geochemistry	Origin and distribution of the chemical elements. Geochemical cycles operating in the Earth's atmosphere, hydrosphere, and lithosphere.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 341 (or 346), or GLG 321 with a grade of D or better
CHM	483	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	485	Meteorites and Cosmochemistry	Chemistry of meteorites and their relationship to the origin of the Earth, solar system, and universe.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		Pre-requisites: Must be an Honors student
CHM	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6	L	Pre-requisites: Must be an Honors student
CHM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		
CHM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-7		
CHM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
CHM	501	Current Topics in Chemistry	May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	521	Chemometrics	Overview of chemometric tools in analytical chemistry, including multivariate calibration, spectral deconvolution, and experimental design.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	523	Advanced Analytical Chemistry	Theoretical principles of analytical instrumentation and measurements.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	524	Separation Science	Addresses principles and applications for all areas of chemical separations. Emphasizes separations principles in microfluidics and its interface with nanotechnology and traditional electronic materials.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	525	Analytical Spectroscopy	Theoretical and practical considerations involving the use of optical instruments for chemical analyses.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.		
CHM	527	Electroanalytical Chemistry	Theoretical and practical considerations for modern electroanalytical chemistry, including voltammetry, potentiometry, and microelectrode analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.		Pre-requisites: CHM 346 with C or better. Credit is allowed for only CHM 527 or NAN 527
CHM	531	Advanced Organic Chemistry I	Reaction mechanisms, reaction kinetics, linear free energy relationships, transition state theory, molecular orbital theory, and Woodward-Hoffmann rules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	532	Advanced Organic Chemistry II	Organic mechanisms, thermodynamic and kinetic control, structure/activity relationships, isotope effects, multistep reactions, reactive intermediates, radical reactions, electron transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	535	Medicinal Chemistry	Principles of medicinal and pharmaceutical chemistry. Drug design, synthesis, and mechanism of action.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Students may not enroll in CHM 535 who have credit in CHM 435

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CHM	537	Organic Reactions	Organic synthetic methodologies and important synthetic reactions emphasizing recently discovered reactions of preparative value. Protection/deprotection synthetic strategies; peptide synthesis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	541	Advanced Thermodynamics	Equilibrium thermodynamics. Chemical reactions, phase equilibria, and stability in multicomponent systems. Aqueous solutions and electrochemistry. Introduces statistical thermodynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	543	Computational Chemistry	Provides basic concepts and practical experience in computational chemistry. Covers electronic structure methods and computer simulation techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	545	Quantum Chemistry	Wave and matrix formulation of quantum mechanics applied to the vibrational, rotational, and electronic states of polyatomic molecules. Hartree-Fock, electron correlation, and molecular orbital theory. Selection rules and introduction to group theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	546	Molecular Spectroscopy and Group Theory	Applies quantum mechanics to the general problem of the interaction of light with molecular systems. Angular momentum and group theory. Symmetry classifications. Overview of the formalism and experimental techniques in different resonant-based spectroscopies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	548	Chemical Kinetics and Dynamics	Experimental and theoretical aspects of time-dependent processes in chemistry. Topics include kinetics of chemical reactions, diffusion, and relaxation phenomena in ordered and disordered materials.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	549	Advanced Topics in Physical Chemistry	Various advanced and special topics in physical chemistry. Previous topics included: supercooled liquids and the glass transition, vibrational spectroscopy of solids, phase transitions and critical phenomena. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	552	Advanced Inorganic and Materials Synthesis Laboratory	Preparation and characterization of inorganic compounds and materials, emphasizing advanced methods and techniques of importance in inorganic and materials chemistry. Schlenk-line and glovebox manipulations, solvothermal syntheses, and gas-phase reactions.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		
CHM	553	Advanced Inorganic Chemistry	Principles of modern inorganic chemistry applied over the entire periodic system. Bonding theory, chemical reactivity, spectroscopic and magnetic properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	571	Structure, Bonding, and Symmetry in Materials	Principles of structural and materials chemistry, emphasizing crystal chemistry. Symmetry of periodic structures (space groups), factors determining bond lengths and coordination geometries, and the role of structure in determining physical properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	579	Topics in Inorganic and Materials Chemistry	May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	582	Topics in Geochemistry and Cosmochemistry	Topics of current interest for students in chemistry and other fields. Sampling of data and thought concerning phase equilibria, element distribution, meteorites, the Earth, and other planets. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		

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CHM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-15		
CHM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-15		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	Pre-requisites: must have completed CHM 113 with a D or greater, or be currently enrolled
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	325	Analytical Chemistry	Principles and methods of chemical analysis.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	326	Analytical Chemistry Laboratory	Experiments in chemical analysis. Fee.	N	REC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	327	Instrumental Analysis	Principles of instrumental methods in chemical analysis. Electroanalytical and optical techniques.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	328	Instrumental Analysis Laboratory	Experiments in chemical analysis by electroanalytical and optical techniques. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	2.		
CHM	332	General Organic Chemistry	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	336	General Organic Chemistry Laboratory	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		

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CHM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
CHM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	107	Chemistry and Society	General chemical principles and concepts presented in context of social and technological issues, e.g., energy, pollution, global warming, and others. This is a lecture course which may be combined with the laboratory CHM 108 for those interested in lab course credit. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Credit earned for CHM 101 and any combination of CHM 107 and 108 cannot be used simultaneously. General Studies: SQ (if taken with CHM 108) & G	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SQ & G	
CHM	108	Chemistry and Society Laboratory	Experiments in chemical principles presented in chemistry and society lectures (CHM 107). Students must complete both CHM 107 and CHM 108 to receive an SQ (General Studies).	N	LAB	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	480	Methods of Teaching Chemistry	Organization and presentation of appropriate content of chemistry; preparation of reagents, experiments, and demonstrations; organization of stock rooms and laboratories; experience in problem solving. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
CHP	500	Research Methods	Course on research methods in a specific discipline.	Y	DIS	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
CHP	501	Community Health Assessment and Analysis	Provides theory and practice in community assessment and analysis applicable to community health practice.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing (Comm Health Nursing) or Nursing (Comm Health Adv Prac) student; CHP 500 with B or better; Co-requisite: NUR 581
CHP	502	Community Health Program Planning and Evaluation	Utilizes planning and evaluation theory in planning programs to meet identified health needs of communities.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing (Comm Health Adv Prac) student; CHP 501 with B or better
CHP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
CIM	105	Introduction to the Concrete Industry	Overview of the history, career opportunities, job functions, and professional organizations in the concrete industry.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1.		
CIM	106	Fundamentals of Concrete: Properties and Testing	Examines effects of concrete-making materials on the properties of fresh and hardened concrete. Concrete mixture proportioning calculations and analysis.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: CIM 105 with C or better; Co-requisite: STP 226
CIM	205	Concrete Construction Methods	Forming, shoring, placing and reinforcing operations. Transporting, placing, consolidating, finishing, jointing, and curing concrete for foundations and other structural members.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CIM 106 with C or better; CON 252
CIM	206	Application of Concrete in Construction	Detailed study of the many uses of concrete in the construction of buildings, pavements, and other facilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CIM 205 completed with C or better; CON 243 completed with D or better
CIM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CIM	305	Management of Concrete Products: Ordering and Delivering	Basic understanding of managing the order and delivery process common to all concrete products.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: CIM 206 with C or better
CIM	306	Management of Concrete Products: Production Facilities	Detailed study of the many uses of concrete in the construction of buildings, pavements, and other facilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CIM 305 completed with C or better; CON 251 completed with D or better; Co-requisites: CON 371, & Construction BS students only
CIM	405	Concrete Problems: Diagnosis, Prevention, and Dispute	Diagnose and prevent problems related to concrete production, testing, construction, and performance.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS students only. Completed CIM 306 with a C or better or currently enrolled

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CIM	406	Concrete Industry Management Capstone	Intensive study of a problem appropriate to the major and the student's career interests. Lecture, student presentations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	2.		Pre-requisites: Construction BS student; CIM 405 with C or better; COM 225
CIM	420	Senior Concrete Lab	Reintroduces fundamental lab procedures as well as advanced testing methods. Collect data, search for literature, analyze and report on conclusions.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 405 with C or better
CIM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CIS	105	Computer Applications and Information Technology	Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.	CS	
CIS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-3		
CIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		
CIS	220	Programming Concepts for Accountancy Majors	Introduces business computer programming. Uses programming languages such as Visual BASIC to teach proper programming style and practice. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		
CIS	235	Introduction to Information Systems	Survey course introducing the competitive and strategic uses of information systems, how information systems are transforming organizations and their management, and the issues, difficulties, and opportunities facing the technology professional and business manager today. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: must have completed CIS 105 or 200 or 220 with a C or greater or be currently enrolled; AND must have completed MAT 210 or 270 or 211 or 271 with a C or greater or be currently enrolled.
CIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Accountancy or Computer Information Systems BS or PRE student
CIS	300	Web Design and Development	Focuses on Web site development, including target audience, image presentation, page/content topic organization, site navigational functionality, implementation needs, and future needs. Web site design and development practice using business software products.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: Minimum 2.0 ASU cumulative GPA AND minimum 56 earned hours, OR be post-bacc undergraduate, or be non-degree seeking student or be graduate student.
CIS	335	Visual Paradigms for Information Systems Development	Uses visual programming languages such as Visual BASIC to implement data structures, file structures, and interfaces in business information systems. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: W. P. Carey ACC BS student having completed CIS 220 OR CIS BS student having completed CSE 100, AND ACC 241 AND ECN 221 with a grade of C or greater
CIS	340	Object-Oriented Modeling and Programming	Object-oriented modeling of business information systems. Abstract data types and object-oriented programming using a language such as C#. Fee.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: Must be W. P. Carey CIS BS student; AND must have completed ACC 241, CIS 235 or CIS 236, CSE 181 or 182, ECN 221 with a C or greater
CIS	360	Business Database Concepts	Database theory, design, and application, including the entity-relationship model; the relational, hierarchical, and network database models; and query languages. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: W. P. Carey Accountancy BS student, and CIS 105 or CIS 220, ACC 231 and ACC 241 with a grade of C or better; OR W. P. Carey Computer Information Systems BS student, and CIS 235 with a grade of C or better.
CIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Min 2.0 ASU cum GPA and min 56 earned hours, OR be post-bacc undergraduate, or be non-degree seeking student or be graduate student.
CIS	425	Electronic Commerce Strategy	Key business strategies and technology elements of contemporary electronic commerce. Covers Web design and interactions between Web pages and databases. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: W. P. Carey Accountancy BS or Computer Information Systems BS student; CIS 360 with C or better
CIS	430	Networks and Distributed Systems	Advanced topics such as communications protocols, distributed systems, network security and client-server systems; applications based on platforms such as .NET and networked UNIX. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: W. P. Carey Computer Information Systems student; AND must have completed ACC 330 or 444 AND CIS 340 or 410 with a C or greater or be currently enrolled; Pre- or co-requisite: CIS 360.
CIS	440	Systems Design and Electronic Commerce	Systems design for organizational and electronic commerce systems; use of project management and systems analysis and design tools.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.	L	Pre-requisites: W.P. Carey Computer Information Systems BS student; CIS 360 and CIS 430 with C or better
CIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: W.P. Carey CIS BS student
CIS	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Information Systems	1-6		
CIS	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Information Systems	1-6	L	Pre-requisites: Must be an Honors student
CIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: W.P. Carey ACC BS or CIS BS student
CIS	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-6		
CIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-7		Pre-requisites: W.P. Carey CIS BS student

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CIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-3		Pre-requisites: W.P. Carey CIS BS student
CIS	502	Information Systems	Organizational, strategic, and technical issues of the management of information. Evaluation, design, and use information systems as competitive advantage.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: W.P.Carey MBA student
CIS	505	Object-Oriented Modeling and Programming	Object-oriented modeling of business information systems, abstract data types and object-oriented programming using a visual language.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey graduate students only
CIS	506	Business Database Systems	Hierarchical, network, relational, and other recent data models for database systems. Processing issues such as concurrency control, query optimization, and distributed processing.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	512	Intelligent Decision Systems and Knowledge Management	Definition, description, construction, and evaluation of computer-based decision systems.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	515	Management Information Systems	Systems theory concepts applied to the collection, retention, and dissemination of information for management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	520	Systems Design and Evaluation	Methodologies of systems analysis and design. Issues include project management, interface, organizational requirements, constraints, documentation, implementation, control, and performance evaluation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	530	Information Systems Development	Object-oriented and interprocess communication and control concepts for information systems; applications based on languages such as C++ and platforms such as networked UNIX.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	535	Distributed and Mixed-Media Information Systems	Modern communications protocols for wireless and mobile computing, overview of network and distributed database management systems, overview of storage and multimedia delivery issues, and shared virtual reality technologies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: Specific W.P. Carey Graduate student
CIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: Specific W.P. Carey Graduate student
CIS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		

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CIS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: W.P. Carey Info Systems PhD student
CIS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-15		
CIS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Information Systems	1-15		
CIS	105	Computer Applications and Information Technology	Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
CLS	100	Introduction to Clinical Laboratory Sciences	Introduces the field of clinical laboratory sciences. Required for Clinical Laboratory Sciences majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
CLS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
CLS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
CLS	310	Principles of Clinical Chemistry I	Theory and application of principles of clinical chemistry, with emphasis on lab techniques, pathophysiology, methods of analysis, and assessment of procedure. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
CLS	320	Principles of Clinical Microbiology I	Theory and application of principles of clinical microbiology with emphasis on isolation and identification of medically significant fungi and bacteria. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
CLS	330	Principles of Clinical Hematology I/Body Fluids	Theory and application of principles in hematology, with emphasis on techniques to evaluate blood dyscrasias and analyze body fluids.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
CLS	410	Principles of Clinical Chemistry II	Continuation of CLS 310 with emphasis on principles of advanced clinical chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
CLS	411	Advanced Applications of Clinical Chemistry	Clinical application of theory/techniques from CLS 310 and 410. Emphasizes operation of common lab instrumentation and clinical correlation. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	420	Principles of Clinical Microbiology II	Disease mechanisms and identification of medically significant parasites, Mycobacteria, Actinomycetes, Chlamydia, Rickettsia, Mycoplasma, and viruses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
CLS	421	Advanced Applications of Clinical Microbiology	Practical lab application of the principles of specimen collection, processing, detection, identification, and antimicrobial testing of medically significant bacteria, fungi, and parasites. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	430	Principles of Clinical Hematology II/Hemostasis	Theory and applications of principles in hematology with emphasis on etiology, pathophysiology, clinical manifestations, and treatment of blood dyscrasias/hemostatic defects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		

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CLS	431	Advanced Applications of Clinical Hematology	Practical lab application of methods/techniques used to evaluate and diagnose blood dyscrasias/hemostatic defects. Applied techniques in body fluid analysis. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	440	Principles of Clinical Immunology/Immunohematology	Theoretical and practical application of clinical immunology and immunohematology. Emphasizes serological techniques that aid disease diagnosis and blood donor selection.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	441	Advanced Applications of Clinical Immunology/Immunohematology	Practical lab application of the principles of serological methods used in diagnosing disease and selecting blood components for transfusion therapy. Minimum 135 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
CLS	450	Principles of Clinical Laboratory Administration	Principles of management, emphasizing the clinical lab. Basic management process, personnel supervision, identification, and allocation of resources. Both CLS 450 and 460 must be taken to secure L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	
CLS	460	Principles of Clinical Laboratory Education	Principles of learning, with application to the development of instructional objectives, strategies, and evaluation for teaching-learning situations in the lab. Both CLS 450 and 460 must be taken to secure L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	
CLS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
CMN	551	Democracy and Power in Organizations	Examines structural, historical, relational, and symbolic dimensions of organizational communication and discourses that foster or impede communication advocacy.	N	LEC	N	OPT	INACTIVECollege Human Services	INACTIVE Department of Communication Studies	3.		Pre-requisites: Communication Studies Master of Arts student; CMN 502 or COM 502 with C or better
CMN	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	124	Media and Culture	Introduces contemporary intercultural issues as expressed through various media in American society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	C	
CMN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
CMN	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites:Must have completed ENG 101, or ENG 105 with a grade of C or greater
CMN	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and purposeful organization of public communication. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Prerequisites:Must have completed ENG 101 or 105 with a grade of C or greater
CMN	230	Small Group Communication	Principles and processes of small group communication, attitudes and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
CMN	308	Empirical Research Methods in Communication	Examines social science approaches to the study of communication, including experimental, survey, descriptive, and other quantitative approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: ENG 101 or 105 completed with C or better; Cumulative GPA of 2.0 or greater; Students majoring in Communication on the Tempe campus should take COM 308
CMN	309	Rhetorical, Interpretive, and Critical Methods in Communication	Examines humanistic and qualitative approaches to communication. Introduces textual, interactional and ethnographic methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have GPA of 2.0 or greater
CMN	310	Relational Communication	Examines communication processes as they relate to relationship development, maintenance, and termination.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Must have a GPA of 2.0 or greater
CMN	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: must have a GPA of 2.0 or greater
CMN	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	C	Pre-requisites: Must have a GPA of 2.0 or greater
CMN	320	Communication and Consumerism	Critical evaluation of messages designed for public consumption. Perceiving, evaluating, and responding to political, social, and commercial communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: must have a GPA of 2.0 or greater
CMN	321	Rhetorical Theory and Research	Historical development of rhetorical theory and research in communication, from classical antiquity to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or HU	Pre-requisites: must have a GPA of 2.0 or greater;and completed ENG 101 or 105 with a C or greater
CMN	324	Rhetoric and Media Criticism	Critical examination of media arts, including cinema, television, and video. Applies rhetorical, textual, and interpretive methods of criticism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	325	Advanced Public Speaking	Social and pragmatic aspects of public speaking as a communicative system; strategies of rhetorical theory and the presentation of forms of public communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater
CMN	329	Persuasion	Variables that influence and modify attitudes and behaviors of message receivers, including analysis of theories, research, and current problems.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater

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CMN	353	Professional Communication	Introduces both verbal and written professional communication styles and technologies in preparation for communication-related internships and careers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	371	Cross-Cultural Communication Perspectives	Explores different cultures' approaches to theories of and practices in social interaction and public discourse.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	Pre-requisites: must have a GPA of 2.0 or greater
CMN	382	Classroom Apprenticeship	Nongraded credit for students extending their experience with a content area by assisting with classroom supervision in other CMN courses. Maximum 3 semester hours each semester.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
CMN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisites: must have a GPA of 2.0 or greater
CMN	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: must have GPA of 2.0 or greater.
CMN	414	Crisis Communication	Role of communication in crisis development and intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater
CMN	416	Gender, Race, Colonialism, and Media	Explores how the mass media constructs gender and race and perpetuates colonial views of minorities and varied nationalities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	417	Communication and Aging	Critical study of changes in human communicative patterns through the later adult years, with attention on intergenerational relationships and self-concept functions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	421	Rhetoric of Social Issues	Critical rhetorical study of significant speakers and speeches on social issues of the past and present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU	Pre-requisites: must have a GPA of 2.0 AND have completed CMN 321 with a C or greater, or be currently enrolled in CMN 321
CMN	422	Advanced Argumentation	Advanced study of argumentation theories and research as applied to public forums including: political, business, and legal contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: Must be a Junior and have a GPA of 2.0 or greater, AND completed ENG 101 or 105 with a grade of C or greater
CMN	424	Television Studies and Criticism	Surveys critical and historical approaches to television as a medium; to television research; and to television's effects.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater or be currently enrolled.
CMN	429	Semiotics and Visual Communication	Semiotic analysis of mediated forms of communication, including film, television, and photography. Includes the political and aesthetic dimensions of images.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater or be currently enrolled.
CMN	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater
CMN	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	451	Employee Participation Processes in Organizations	Communication principles and practices associated with employee empowerment, team-based organizing, and similar employee involvement processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater AND be enrolled in CMN 308 OR 309 or completed CMN 308 or 309 with a grade of C or greater.
CMN	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	454	Rhetorical and Critical Approaches to Public Relations	An historical and contemporary account of how public relations messages build corporate identities and persuade audiences by shaping public values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater or be currently enrolled in CMN 309.
CMN	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate and image creation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	457	New Media	Explores how new communication and information technologies affect communication and culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater.
CMN	463	Cultural and Intercultural Communication Theory and Research	Survey and analysis of major theories and research dealing with communication within cultures and between people of different cultural backgrounds.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: CMN 308 or 309 (or COM 308 or COM 309) with C or better or currently enrolled
CMN	465	Intercultural Communication Workshop	Experientially based study of communication among members of different cultures designed to help students improve their intercultural communication skills.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
CMN	471	International Communication	Explores the political, economic, sociocultural, and communicative dimensions of mediated communication across borders and the processes of globalization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	Pre-requisites: Minimum 2.0 GPA; CMN 463 or COM 463 with C or better
CMN	475	Nonverbal Communication Theory and Research	Critical study of theories and research concerning nonlinguistic aspects of communication. Examines functions of nonverbal behaviors in various communication contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
CMN	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
CMN	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CMN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
CMN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
CMN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
CMN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
CMN	502	Theory and Practice in Communication and Persuasion	Theoretical exploration of communicative and persuasive practices as applied in various contexts. Surveys classical, modern, and contemporary theories of persuasion.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	505	Methods in Applied Communication Research	Examines the intellectual, practical, and ethical dimensions of engaging in applied research. Emphasizes empirical and quantitative methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	506	Humanistic Inquiry and Field Research in Communication	Examines interpretive, critical, and rhetorical approaches to communication and advocacy, including hermeneutics, ethnography, and cultural studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	515	Ethical Issues in Communication Advocacy	Examines the ethical issues or concerns related to communication advocacy. Variable topics; examines research, theory, and/or practice.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	516	Mediation and Dispute Resolution	Examines advocacy's role in fair negotiation and effective and successful dispute resolution. Examines research, theory, and/or practice.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	520	Communication Campaigns	Explores public communication strategies aimed at advocating for general or specific audiences and/or for particular issues and causes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Communication Studies Master of Arts student; CMN 502 or COM 502 with C or better
CMN	522	Argumentation and Advocacy	Introduces various models of argumentation and their applications to various spheres of advocacy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	531	Communication and Social Change	Examines human communication and technologies of communication as agents of social change within groups, communities, organizations, and/or cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	532	Advocacy in Interpersonal Settings	Examines particular relational contexts in which advocacy plays a pronounced role (e.g., personal, family, and service provider relationships).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	550	Advocacy in Organizational Settings	Examines issues of upward influence, the expression of dissent, and grievance systems within organizational contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	557	Communication and Technology	Assesses technology's role in the social dynamics of human interaction. Emphasizes the impact of technology with regard to communication advocacy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	565	Globalization and Advocacy	Explores the forces leading to increased intergroup contact and their impact on social, economic, and political dynamics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	570	Communication and Advocacy in Social Context	Variable topics course exploring the intersection of communication and advocacy in specific contexts not addressed in other elective courses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
CMN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		Pre-requisite: Communication Studies Master of Arts student
CMN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	RSC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student

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CMN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1.		Pre-requisite: Communication Studies Master of Arts student
CMN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisite: Communication Studies Master of Arts student
CMN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		Pre-requisite: Communication Studies Master of Arts student
COE	501	Introduction to Research and Evaluaton in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	502	Introduction to Data Analysis	Descriptive statistics, visual approaches, estimation, and inferential methods for univariate and bivariate educational research problems. Experience using statistical software.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	503	Introduction to Qualitative Research	Terminology, historical development, approaches (including ethnography, ethnomethodology, critical theory, grounded theory, and hermeneutics), and qualitative versus quantitative social sciences; methods of inquiry.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
COE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		
COE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		
COE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
COE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
COE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
COE	501	Introduction to Research and Evaluaton in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
COE	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	
COM	110	Elements of Interpersonal Communication	Demonstration and practice of communicative techniques in establishing and maintaining interpersonal relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a GPA of greater than or equal to 2.25
COM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisite: Maximum 24 earned hours
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a GPA of greater than or equal to 2.50
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: must have completed ENG101, ENG105, or ENG107 with a grade of C or greater
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	263	Elements of Intercultural Communication	Basic concepts, principles, and skills for improving communication among persons from different minority, racial, ethnic, and cultural backgrounds.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C & G	Pre-requisite: Minimum 2.25 GPA
COM	271	Voice Improvement	Intensive personal and group experience to improve normal vocal usage, including articulation and pronunciation.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	281	Communication Activities	Nongraded participation in forensics or interpretation cocurricular activities. Maximum 3 semester hours each semester.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		
COM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	298	Honors Directed Study		N	PRA	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		Pre-requisites: Must be an Honor student
COM	300	Communication in Interdisciplinary Studies	Examines and analyzes communication in the context of other academic disciplines. Open to BIS majors only.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: BIS student; Minimum Sophomore standing; Minimum 2.00 GPA; COM 100 and COM 225 with C or better or COM 259 with C or better
COM	301	Introductory Theories and Principles of Communication: Communication in Relationships, Organizations	Integrated introduction to the theories and principles of communication in public, interpersonal, and organizational contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3-9		
COM	308	Advanced Research Methods in Communication	Advanced communication research methods, including quantitative, qualitative, and critical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: Must have a GPA of 2.5 or greater; Must have completed COM 207 with a grade of C or greater; Must have completed a Math pre-requisite
COM	310	Relational Communication	Explores communication issues in the development of personal relationships. Current topics concerning communication in friendship, romantic, and work relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 with C or better
COM	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a GPA of 2.50 or greater; Must have completed COM 100 with a grade of C or greater
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	317	Nonverbal Communication	Study of communication using space, time, movement, facial expression, touch, appearance, smell, environment, objects, voice, and gender/cultural variables. Not open to students with credit in COM 294 ST: Beyond Words.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA of 2.50 or greater
COM	319	Persuasion and Social Influence	Variables that influence and modify attitudes and behaviors of message senders and receivers, including analysis of theories, research, and current problems.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a Cumulative GPA of 2.50 or greater; Communication students must have completed COM 207 with a grade of C or greater; Non-Communications students must have completed a specified statistics course with a grade of C or greater
COM	320	Communication and Consumerism	Critical evaluation of messages designed for public consumption. Perceiving, evaluating, and responding to political, social, and commercial communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.50 GPA

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COM	321	Rhetorical Theory and Research	Historical development of rhetorical theory and research in communication, from classical antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	(L or HU) & H	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 100 with a grade of C or greater
COM	323	Communication Approaches to Popular Culture	Critical analysis of popular culture within social and political contexts; emphasizes multicultural influences and representations in everyday life.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	C	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 100 with a grade of C or greater
COM	325	Advanced Public Speaking	Social and pragmatic aspects of public speaking as a communicative system; strategies of rhetorical theory and the presentation of forms of public communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 225 with a grade of C or greater
COM	326	Court Room Oratory	Increases knowledge and appreciation of the role of communication in the development of legal and public policies.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	341	Social Contexts for Performance	Adaptation and performance of literature for the community outside the university. Research into the practical uses of performed literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	344	Performance of Oral Traditions	Cultural beliefs and values studied through ethnographic research and performance of personal narratives, folklore, myths, legends, and other oral traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU & C	Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C & G	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 263 with a grade of C or greater or be currently enrolled
COM	382	Classroom Apprenticeship	Nongraded credit for students extending their experience with a content area by assisting with classroom supervision in other COM courses (maximum 3 semester hours each semester).	N	PRA	N	YGB	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings. Open to BIS majors only.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU & C	Prerequisites : Interdisciplinary Studies student; Sophomore or greater; GPA of 2.00 or greater; Completed either COM 100 and COM 225 OR only COM 259 with a grade of C or greater or be currently enrolled.
COM	404	Research Apprenticeship	Direct research experience on faculty projects. Student/faculty match based on interests.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	407	Advanced Critical Methods in Communication	Examines critical approaches relevant to communication, including textuality, social theory, cultural studies, and ethnography.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 308 with a grade of C or greater
COM	408	Quantitative Research Methods in Communication	Advanced designs, measurement techniques, and methods of data analysis of communication research.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA greater than or equal to 2.50; Must have completed COM 308 AND one of the following Statistics course with a grade of C or greater: EDP 454, PAF 401, POS 401, PSY 230, QBA 221, SOC 390, SOC 395 or STP 226
COM	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 308 with a grade of C or greater; Must have completed either COM 110 or 310 with a grade of C or greater
COM	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 207 with a grade of C or greater; Must have completed either COM 110 or 310 with a grade of C or greater
COM	414	Crisis Communication	Role of communication in crisis development and intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	421	Rhetoric of Social Issues	Critical rhetorical study of significant speakers and speeches on social issues of the past and present.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 308 with a grade of C or greater; Must have completed either COM 321 or 323 with a grade of C or greater
COM	426	Political Communication	Theories and criticism of political communication; including campaigns, mass persuasion, propaganda, and speeches. Emphasis on rhetorical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.50 GPA
COM	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 230 with a grade of C or greater
COM	441	Performance Studies	Theory, practice, and criticism of texts in performance. Emphasizes the interaction among performer, text, audience, and context.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Minimum 2.50 GPA; COM 241 and COM 308 with C or better
COM	442	Identity, Performance, and Human Communication	Explores communication dimensions of self and others as performance. Examines topics that include gender, race, sexuality, age, and ethnicity through performance.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: COM 225 (or COM 241); Minimum 2.50 GPA
COM	445	Narrative Performance	Theory and practice of performing narrative texts (e.g., prose fiction, oral histories, diaries, essays, letters). Includes scripting, directing, and the rhetorical analysis of storytelling.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Minimum 2.50 GPA; COM 241 with C or better
COM	446	Performance of Literature Written by Women	Explores, through performance and critical writing, literature written by women.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	(L or HU) & C	Pre-requisite: Minimum 2.50 GPA
COM	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 250 and COM 308 with a grade of C or greater

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 250 with a grade of C or greater
COM	463	Intercultural Communication Theory and Research	Survey and analysis of major theories and research dealing with communication between people of different cultural backgrounds, primarily in international settings.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & G	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 263 and COM 308 with a grade of C or greater
COM	465	Intercultural Communication Workshop	Experientially based study of communication between members of different cultures designed to help students improve their intercultural communication skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	GNA	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisites: Communications students only and have completed 56 or more hours; Minimum cumulative GPA of 2.50; COM 225 and COM 308 with a C or better
COM	492	Honors Directed Study		Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		Pre-requisites: Must be an Honors student
COM	493	Honors Thesis		N	PRA	N	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6	L	Pre-requisites: Must be an Honors student
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		Pre-requisite: Minimum 2.50 GPA
COM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		
COM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-7		
COM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisites: Must have a minimum cumulative GPA of 2.50
COM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	501	Research Methods in Communication	Critical analysis of systems of inquiry in communication, focusing on the identification of variables and approaches to conducting research in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	504	Theories and Models in Communication	Theory construction, metatheoretical concerns, models, construct definition, and comparative analysis of current theories in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	508	Quantitative Research Methods in Communication	Empirical research designs, measurements, and statistical strategies and techniques in analyzing and evaluating experimental and descriptive research in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must be a Graduate Communications student
COM	509	Qualitative Research Methods in Communication	Qualitative research methods, including interviewing, field methods, and other nonquantitative techniques for analyzing communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must be a Graduate Communications student
COM	521	Rhetorical Criticism of Public Discourse	History and significance of rhetorical theory and criticism in the analysis of public discourse.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications Graduate student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1.		
COM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	PRA	Y	Z2	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	604	Theory Construction in Communication	Review and analysis of philosophical problems inherent in communicative research and of metatheories designed to deal with these problems.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	607	Contemporary Rhetorical Methods	Analysis of issues in the practice of rhetorical communication research, including criticism and scholarship.	N	SEM	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	608	Multivariate Statistical Analysis of Data in Communication	Statistical analysis of communication research data. Multivariate procedures used in communication research and methods of causal analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	609	Advanced Qualitative Research Methods in Communication	Analysis of issues in the practice of qualitative communication research, including data gathering, fieldwork issues, analysis strategies, and reporting results.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications PhD student
COM	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications Graduate student
COM	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisites: Communications PhD student; COM 600 or COM 608 with B or better; COM 601 or COM 700 with B or better
COM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-15		
COM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1.		
COM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	PRA	Y	Z2	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-15		
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	110	Elements of Interpersonal Communication	Demonstration and practice of communicative techniques in establishing and maintaining interpersonal relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a GPA of greater than or equal to 2.25
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of greater than or equal to 2.50
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of greater than or equal to 2.50
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: must have completed ENG101, ENG105, or ENG107 with a grade of C or greater
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: must have completed ENG101, ENG105, or ENG107 with a grade of C or greater
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	263	Elements of Intercultural Communication	Basic concepts, principles, and skills for improving communication among persons from different minority, racial, ethnic, and cultural backgrounds.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisite: Minimum 2.25 GPA
COM	300	Communication in Interdisciplinary Studies	Examines and analyzes communication in the context of other academic disciplines. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: BIS student; Minimum Sophomore standing; Minimum 2.00 GPA; COM 100 and COM 225 with C or better or COM 259 with C or better
COM	301	Introductory Theories and Principles of Communication: Communication in Relationships, Organizations	Integrated introduction to the theories and principles of communication in public, interpersonal, and organizational contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3-9		
COM	308	Advanced Research Methods in Communication	Advanced communication research methods, including quantitative, qualitative, and critical approaches.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have a GPA of 2.5 or greater; Must have completed COM 207 with a grade of C or greater; Must have completed a Math pre-requisite
COM	310	Relational Communication	Explores communication issues in the development of personal relationships. Current topics concerning communication in friendship, romantic, and work relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 with C or better
COM	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of 2.50 or greater; Must have completed COM 100 with a grade of C or greater
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Pre-requisite: Minimum 2.50 GPA

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COM	317	Nonverbal Communication	Study of communication using space, time, movement, facial expression, touch, appearance, smell, environment, objects, voice, and gender/cultural variables. Not open to students with credit in COM 294 ST: Beyond Words.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a cumulative GPA of 2.50 or greater
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 263 with a grade of C or greater or be currently enrolled
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 263 with a grade of C or greater or be currently enrolled
COM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	Prerequisites : Interdisciplinary Studies student; Sophomore or greater; GPA of 2.00 or greater; Completed either COM 100 and COM 225 OR only COM 259 with a grade of C or greater or be currently enrolled.
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	Prerequisites : Interdisciplinary Studies student; Sophomore or greater; GPA of 2.00 or greater; Completed either COM 100 and COM 225 OR only COM 259 with a grade of C or greater or be currently enrolled.
COM	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 308 with a grade of C or greater; Must have completed either COM 110 or 310 with a grade of C or greater
COM	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 207 with a grade of C or greater; Must have completed either COM 110 or 310 with a grade of C or greater
COM	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 250 and COM 308 with a grade of C or greater
COM	492	Honors Directed Study		Y	PRA	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6		Pre-requisites: Must be an Honors student
COM	493	Honors Thesis		N	PRA	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		Pre-requisite: Minimum 2.50 GPA
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
CON	100	Introduction to Construction	Introduces construction industry sectors and professionals. Additional content includes developing personal competencies required of construction professionals.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	2.		
CON	101	Construction and Culture: a Built Environment	Analyzes the cultural context of construction, emphasizing its centrality in the evolution and expansion of built environments as expressions of ethical and historical value systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	HU & H & G	
CON	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-3		
CON	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	221	Applied Statics	Vectors, forces and moments, force systems, equilibrium, analysis of basic structures and structural components, friction, centroids, and moments of inertia.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: PHY 111 and PHY 113 and MAT 265 (or MAT 270) with C or better
CON	223	Strength of Materials	Analyzes strength and rigidity of structural members in resisting applied forces. Stress, strain, shear, moment, deflections, combined stresses, and connections.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Must have completed CON 221 with a grade of D or greater or be currently enrolled
CON	241	Surveying	Theory and fieldwork in construction and land surveys.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: MAT 265 or MAT 270 with C or better
CON	243	Heavy Construction Equipment, Methods, and Materials	Emphasizes Horizontal construction. Fleet operations, maintenance programs, methods, and procedures to construct tunnels, roads, dams, and the excavation of buildings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	251	Microcomputer Applications for Construction	Applies the microcomputer as a problem-solving tool for the constructor. Uses spreadsheets, information management, and multimedia software. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: MAT 265 or MAT 270 with C or better
CON	252	Building Construction Methods, Materials, and Equipment	Emphasizes Vertical construction. Methods, materials, codes, and equipment used in building construction corresponding to the division of the CSI Master Format.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	273	Electrical Construction Fundamentals and Project Management	Electrical construction, design, estimating, scheduling and project management. Electrical safety, blueprints and symbols, theory, sequence of installation. National Electrical Code (NEC).	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	296	Field Internship	Participation as interns on construction projects to observe and experience the daily activities. fee	N	PRA	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1.		Pre-requisites: Construction students only
CON	301	Megaprojects and Their Impacts on Society	World survey of construction megaprojects and their impacts on the environment, technology, local and global economies, and local culture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering BS/BSE students and must have completed COM 225 with a grade of D or better or be currently enrolled
CON	302	Construction Workforce Issues	Examines issues and forces that have shaped today's construction workforce, including relations among gender, racial, ethnic, and class groups.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering BS/BSE students and must have completed COM 225 with a grade of D or better or be currently enrolled

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CON	310	Testing of Materials for Construction	Structural and behavioral characteristics, engineering properties, measurements, and application of construction materials. Not open to engineering students. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites:Construction BS students only; CON 221 and CON 223 completed with grade of D or better or currently enrolled
CON	341	Surveying	Theory and fieldwork in construction and land surveys. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	345	Mechanical Systems	Design parameters and equipment related to heating and cooling systems for mechanical construction. Biorelated aspects of mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisites:Construction BS students only; Must have completed PHY 111 or PHY 121 AND PHY 113 or PHY 122 with a grade of C or greater or be currently enrolled; Must have completed CON 252 with a grade of D or greater or be currently enrolled
CON	371	Construction Safety	Safety procedures and equipment. OSHA requirements for construction. Biological aspects of construction safety.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS students only; Must have completed CON 252 with a grade of D or greater or be currently enrolled
CON	377	Residential Construction Production Procedures	Process used in residential construction. How a house is built: design, permits, scheduling, codes, contracting, site management, mechanical/electrical.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS or Design BSD students only; Must have completed CON 252 with a grade of D or greater or be currently enrolled
CON	383	Construction Estimating	Analyzes construction drawings and specifications. Methods used in estimating process. Quantity surveying techniques for CSI divisions. Discusses ethical practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisites: Construction BS or Housing & Urban Development BSD students; CON 243 and CON 252 with a D or better
CON	389	Construction Cost Accounting and Control	Nature of construction cost. Depreciation and tax theory and variable equipment costs. Cash flow theory, investment models, profitability, and analysis. Computer applications. Funding sources and arrangements. Builder's insurance.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	CS	Pre-requisites: Engineering and Design BS and BSD students only; Must have completed CON 251 with a grade of D or better or be currently enrolled
CON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		Pre-requisite: Engineering BS or BSE student
CON	424	Structural Design	Economic use of concrete, steel, and wood in building and engineered structures. Design of beams, columns, concrete formwork, and connections.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering Construction BS students; CON 223 with C or better; Pre or Co-requisites: CON 310 (with D or better if completed)
CON	450	Geotechnical Applications for Construction	Soil formation, engineering properties and use as building materials. Soil's influence on construction of built environment, including specifications and biological aspects. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisites: Construction BS students only; Must have completed CON 310 with a grade of D or greater or be currently enrolled
CON	453	Construction Project Management I	Introduces methods and management systems to control resources necessary to complete a construction project on time and budget.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CON 371 and ECN 212 with D or better
CON	455	Construction Project Management II	Advanced topics in administrative procedures, planning processes, and coordination required to successfully complete construction projects on time and budget. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites:Construction BS student and have a D or better in CON495, and CON 453
CON	468	Mechanical and Electrical Estimating	Analysis and organization of performing a cost estimate for both mechanical and electrical construction projects. Computer usage.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites:Construction BS student; Must have received a D or better in CON383 and CON273 and CON345
CON	471	Mechanical and Electrical Project Management	Specialty contracts and agreements, scheduling, material handling, labor unit analysis, and job costing for mechanical and electrical construction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Prerequisites:Engr & Appl Sci BS students AND received a D or greater in CON371
CON	472	Development Feasibility Reports	Integrates economic location theory, development cost data, market research data, and financial analysis into a feasibility report.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	L	Pre-requisite: Construction BS or Design BSD student; REA 380
CON	477	Residential Construction Business Practices	Topics addressed include development, marketing, financing, legal issues, and sales.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Prerequisites: Engineering BS or Design BSD student; CON 389 or MKT 382 completed with a D or greater or currently enrolled; CON 377 completed with a D or greater or currently enrolled
CON	483	Advanced Building Estimating	Concepts of pricing and markup, development of historic costs, life cycle costing, change order and conceptual estimating.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites:Construction BS students; Must have a D or better in CON383, or currently enrolled
CON	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		Pre-requisites: Construction BS students; Must have completed CON296 with D or better or currently enrolled
CON	486	Heavy Construction Estimating	Methods analysis and cost estimation for construction of highways, bridges, tunnels, dams, and other engineering works.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites:Engineering BS Student; Must have a D or greater in CON 241 or 341 AND CON 383
CON	492	Honors Directed Study		N	RSC	N	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-6		
CON	493	Honors Thesis		N	RSC	N	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-6	L	Pre-requisites: Must be an Honors student
CON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	495	Construction Planning and Scheduling	Various network methods of project scheduling, such as AOA, AON Pert, bar-charting, line-of-balance, and VPM techniques. Microcomputers used for scheduling, resource allocation, and time/cost analysis. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	CS	Pre-requisites: Design and Construction students; Must have completed CON 383 and CON 389 with a grade of D or better or be currently enrolled
CON	496	Construction Contract Administration	Surveys administrative procedures of general and subcontractors. Studies documentation, claims, arbitration, litigation, bonding, insurance, and indemnification. Discusses ethical practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	L	Pre-requisites:Design and Engineering BSD and BS; Must have completed COM 225 with a D or better or currently enrolled
CON	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-7		

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CON	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-3		
CON	501	Construction Research Methods	Data collection methodologies, applied parametric and nonparametric statistics, data analysis techniques, technical writing, and data presentation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	533	Strategies of Estimating and Bidding	Explores advanced concepts of the estimating process, such as modeling and statistical analysis, to improve bid accuracies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering MS/MSE/PHD graduate students
CON	540	Construction Productivity	Productivity concepts. Data collection. Analysis of productivity data and factors affecting productivity. Means for improving production and study of productivity improvement programs.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction MS student; CON 495 with B or better
CON	543	Construction Equipment Engineering	Analyzes heavy construction equipment productivity using case studies. Applies engineering fundamentals to the planning, selection, and utilization of equipment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction MS students
CON	545	Construction Project Management	Theory and practice of construction project management. Roles of designer, owner, general contractor, and construction manager.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction MS student; CON 495 with B or better
CON	547	Strategic Planning	Business planning process of the construction enterprise. Differences between publicly held and closely held businesses and their exposure.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	551	Alternative Project Delivery Methods	Design/construction interaction; conceptual estimation and scheduling; the RFQ/RFP process; legal, insurance, risk allocation issues; procurement and selection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	554	Trenchless Construction Methods	Theory and practice of trenchless construction methods. Types of equipment, roles of site personnel, engineering design, contractual issues, and safety. Lecture, class projects, and site visits. Knowledge of heavy construction equipment, methods, and materials required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	561	International Construction	Investigation of the cultural, social, economic, political, and management issues related to construction in foreign countries and remote regions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering Graduate student
CON	563	Facility Management Fundamentals	Operations and maintenance, environmental issues, computerized management and maintenance systems, strategic planning, asset management, construction and design, and LEED/LEED-EB.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	565	Information Measurement Theory I	Simplistic, logical explanations of construction and other industries. State-of-the-art supply chain, profit maximizing, and efficient practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	567	Advanced Procurement Systems	Development of multicriteria decision procurement model for selecting the performing contractor.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	570	Cleanroom Construction I	Design issues for cleanroom facilities; the construction's viewpoint including planning, structures, mechanical, and tool installation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	571	Cleanroom Construction II	Construction issues for cleanroom facilities, including scheduling, cost estimating, project management, mechanical, safety certification, and tool hook-up.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: CON 570 with C or better
CON	575	Information Technology in Construction	Use of information technology in the construction enterprise for improved communications, process modeling, and decision making.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	589	Construction Company Financial Control	Financial accounting and cost control at the company level in construction companies. Accounting systems. Construction project profit calculations. Financial analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering MS, MSE or PHD student
CON	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		

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CON	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Del E. Webb Construction	1.		
CON	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		Pre-requisite: Engineering MS/MSE/PHD Students
CON	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	700	Research Methods	Course on research methods in a specific discipline.	N	RSC	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	SEM	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-15		
CON	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-15		
CPI	430	Social Simulation	Introduces computer simulation and agent-based modeling to study social systems. Credit is allowed for only CPI 430 or ASB 430.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	Pre-requisites: CPI 200 with C or better or currently enrolled
CPI	101	Introduction to Informatics	Concepts, tools, techniques, and applications of informatics. Includes overview of programming, data management, visualization, modeling, and social implications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	111	Game Development I	Introduces video game design, art theory, and concepts as they apply to video game development. Basic art principles used in game development. Covers the fundamental video game art principles of 2-D and 3-D composition, color theory, modeling, and lighting techniques. Demonstrates practical application of these art fundamentals in establishing style guides, concept art, storyboards, and in-game assets. Also includes game design, game production, asset production, and game programming. Hands-on experience by creating 2-D game prototypes belonging to different video game genres and evaluating the techniques.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration students
CPI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	200	Mathematical Foundations of Informatics	Practical introduction to the mathematics necessary for studies in informatics. Topics include discrete math, analytic geometry, calculus, and linear algebra.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	MA	Pre-requisites: MAT 170, 260, 265 or 270 with a C or better or currently enrolled
CPI	211	Game Development II	Introduces multiplayer games, artificial intelligence, and tile-based worlds using Macromedia Flash. Uses ActionScript tool to automate, repeat, change, anticipate, and govern the action of games from a simple word game to a complicated multiplayer game like pool. Introduces gaming terminology and basic genres, enhancements such as fine-tuning graphics, creating optimal soundtracks, and using high score lists, as well as creating and modifying online chat files.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: Computer Gaming Certificate student or BIS student with Computer Gaming emphasis; CPI 111 with C or better

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CPI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	310	Information and Data Management.	Entity-relationship modeling, relational database design, relational algebra, SQL, XML, object-oriented modeling, and data management	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites:CPI 200 with a grade of C or better or currently enrolled
CPI	311	Game Engine Development	State-of-the-art techniques for computer game design and programming with an emphasis on 3-D graphics and interaction. Focuses on a practical, example-driven approach to learning the unique art of 3-D game development. Topics include graphics game engines, textures, shader programming, artificial intelligence, physics, modeling, sound effects, and techniques for user interfaces.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 211 with a C or better
CPI	321	Fundamentals of Game Art	Introduces art theory and concepts as they apply to video game development. Covers 2-D and 3-D composition, color theory, modeling, and lighting techniques. Demonstrates practical application of these art fundamentals in establishing style guides, concept art, storyboards, and in-game assets.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 211 with C or better
CPI	360	Decision Making and Problem Solving	Practical use of database systems, computer graphics, and modeling to inform decision making.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: CPI 200 with C or better
CPI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	400	Scientific Computing and Visualization	Introduces scientific computing and visualization, supported by data acquisition, geometric modeling, and computer graphics. Covers the necessary mathematical foundations, data structures, and algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites:Completed CPI 101, CPI 200, & CSE 110 with a grade of D or better
CPI	411	Graphics for Games	Examines real-time rendering of high-quality interactive graphics. Studies advances in graphics hardware and algorithms that make this possible. Examples of techniques and topics include nonphotorealistic rendering, occlusion culling, level of detail, terrain rendering, shadow generation, image-based rendering, and physical simulation. Helps students add graphics-related features to the game architecture developed in CPI 311.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 311 with a C or better
CPI	412	Cognitive Systems and Intelligent Agents	Advanced concepts and techniques of rule-based programming and agent architectures, incorporating ideas from artificial intelligence, cognitive psychology, and linguistics, along with their use in creating intelligent synthetic characters for interactive games and other virtual environments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 311 with a C or better
CPI	420	Technology and Society	Introduces cultural, ethical, and policy issues raised by the penetration of electronic information and communications systems into all aspects of contemporary society.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: CPI 101 with D or better or currently enrolled
CPI	421	3-D Modeling and Texturing	Provides working knowledge of 3-D modeling, texture mapping, and paint concepts for the creation of 3-D video games art assets. Students work on concepts such as 3-D lighting, high polygon mesh rendering, and various third-party software and how to integrate them into the asset production pipeline.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 321 with C or better
CPI	422	3-D Animation and Rigging for Video Games	3-D rigging, skinning, and 3-D animation techniques for video game development. Includes rotoscoping for character animation, animation loops, and integration of motion capture data, as well as prop animation. Covers operation of 3-D cameras and 3-D rendering.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 321 with C or better
CPI	441	Gaming Capstone	Industry-oriented course emphasizing the video game development process, technical skills, teamwork and communication among the students enrolled in the gaming certificate. Students partner with local industry involved in game development, visual art, and educational gaming and solve real-world problems by working in a team comprised of students from the three tracks available within the certificate.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 412, CPI 422 or DCI 451 with C or better
CPI	470	Application of Modeling and Visualization	Applies modeling, computing, and visualization techniques to real data; presents results in a meaningful visual environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1.		Pre-requisite: CPI 400
CPI	480	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-12		
CPI	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1.		
CPI	493	Honors Thesis		N	THE	N	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-6	L	Pre-requisites: Must be an Honors student
CPI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-3		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CPI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	101	Introduction to Informatics	Concepts, tools, techniques, and applications of informatics. Includes overview of programming, data management, visualization, modeling, and social implications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
CPI	200	Mathematical Foundations of Informatics	Practical introduction to the mathematics necessary for studies in informatics. Topics include discrete math, analytic geometry, calculus, and linear algebra.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 170, 260, 265 or 270 with a C or better or currently enrolled
CPI	420	Technology and Society	Introduces cultural, ethical, and policy issues raised by the penetration of electronic information and communications systems into all aspects of contemporary society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: CPI 101 with D or better or currently enrolled
CPP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-12		
CPP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-12		
CPY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	613	Child Counseling	Applies counseling theory in working with children in clinics and elementary schools. Integrated practicum available with instructor approval.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	622	Group Counseling	Theories and methodologies used in group counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY622
CPY	623	Counseling At-Risk Youth	Examines the behaviors that place adolescents at risk for not achieving career goals and interventions to address these behaviors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CPY	634	Organizational Development and Planned Change	Organizational/individual dynamics, including theory, analysis, techniques, and consultation/intervention strategies used in organizational development.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY634
CPY	644	Psychology of Careers	Advanced career counseling, including theory, research, and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate; CED 577
CPY	645	Professional Issues and Ethics	Ethical, legal, and professional issues of concern to practitioners and researchers functioning in a variety of settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	650	Counseling Latinos	Survey course addressing mental health concerns and perspectives for individuals and families of Latino, Spanish-speaking origin.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: CED 522
CPY	651	Personality Assessment	Training in the use of major objective personality instruments to assess psychological symptoms; emphasizes MMPI-2 and MCMI-III.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: CED 523
CPY	667	Patterns of Behavior Disorders	Etiology and treatment of a variety of psychological problems, particularly those represented in DSM III-R.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY667
CPY	670	Individual Differences	Focuses on definitions and assessment of ways humans vary on psychological constructs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	671	Multicultural Counseling	Provides awareness of the influence of sociocultural variables on human development and explores implications for counseling minority populations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	672	Human Diversity: Social Psychological Perspectives	Implications for psychological practice of social, psychological, and biological factors in the development of behavioral differences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	674	Counseling Women	Explores women's development and its implications for counseling. Sexism in mental health, sex differences in diagnosis and psychopathology, and women's particular treatment needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	675	Health and Wellness Counseling	Theory, research, and practice in health and wellness counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY675
CPY	676	Social Bases of Behavior	In-depth examination of contemporary research and theory in selected areas of social psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	677	Advanced Counseling	Advanced topics in counseling theory, research, and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate; CED 577 with C or better

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CPY	678	Supervision Theory	Models of therapist development and clinical supervision.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CPY	679	History and Systems of Psychology	Examines the development and differentiation of the discipline of psychology from its origins in philosophy to the present.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	694	Substance Abuse: Therapy and Psychoeducation	Develops knowledge and skills for conducting psychotherapeutic and educational interventions to address substance use disorders and associated concerns.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	701	Science and Practice of Counseling Psychology	Directed experiences involving the integration of theory, research, and practice in counseling psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	702	Research Methods in Counseling Psychology	Applies experimental and/or quasi-experimental methods to theory construction and treatment evaluation in counseling psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: COE 502
CPY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CRD	610	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability. Considers issues at different scales, ranging from urban to rural, local to global, historical to contemporary. Critically examines the role of public, private, and nonprofit institutions in promoting quality of life.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
CRD	620	Community Research Methods	Introduces community research methods, with emphasis on methodological questions and techniques relevant to contemporary community-based research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
CRD	620	Community Research Methods	Introduces community research methods, with emphasis on methodological questions and techniques relevant to contemporary community-based research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

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CRD	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
CRD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-15		
CRD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-15		
CRJ	100	The Justice System	Overview of the justice system. Roles of law enforcement personnel, the courts, and correctional agencies. Philosophical and theoretical views in historical perspective.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	SB	
CRJ	230	The Police Function	Introduces policing in the United States covering the history of police, contemporary police work, and problems in policing.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	240	The Correctional Function	Introduces the structure and function of the corrections system from historical and contemporary perspectives.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	302	Research Methods	Focuses on developing and evaluating research designs, data collection, and the relationship between validity and reliability. Also stresses methods for conducting research.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Must have completed CRJ 100, or 301, JUS 100, or 105, or 305 with a grade of C or greater; or be currently enrolled in any one of these
CRJ	303	Statistical Analysis	Introduces the fundamentals and application of descriptive and inferential statistics, with emphasis in the administration of justice area.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	CS	Pre-requisites: MAT 114, 117, 119, 142, 170 or 210 with C or better; CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	304	Criminology	Provides a basic overview of the nature, the causes and consequences, and the theories of criminal behavior.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	305	Women, Crime, and Justice	Studies women as offenders, victims, and professionals in the criminal justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	C	Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	306	Race, Ethnicity, and Justice	Studies minority issues in the criminal justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	C	Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	312	Police and Culture	Covers broad concept of culture, theoretical approaches to police subculture, and major themes that characterize police culture (suspicion, danger, solidarity, and isolationism).	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better or currently enrolled; CRJ 230 (AJS 230) with C or better or currently enrolled
CRJ	314	Innovations in Policing	Examines current theories and research findings that guide police work, and the practical implications of evaluation within police departments.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better or currently enrolled; CRJ 230 (AJS 230) with C or better or currently enrolled
CRJ	315	Police Organization and Management	Provides a thorough understanding of the structure, processes, and behavior of police organizations.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better; CRJ 230 (AJS 230) with C or better
CRJ	320	The Adjudication Function	History and development of courts, trial by jury, and other dispute resolution mechanisms; selection and removal of judges and juries; organization, structure, and jurisdiction of courts; trial and nontrial processes of the judiciary.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: Must have completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or be currently enrolled, or co-enrolled in either of these courses
CRJ	340	Juvenile Justice	Critical examination of the history and development of the juvenile court and the juvenile justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre- or Co-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better if completed
CRJ	350	Law and Social Control	Resolution of social issues through the application of law as an agent of social control. Nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	SB	Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled, or co-enrolled in either of these courses
CRJ	360	Substantive Criminal Law	Criminal liability. Crimes against persons, property, and society. Governmental sanctions of individual conduct as formulated by legislatures and the courts.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre- or Co-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better if completed
CRJ	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	410	Procedural Criminal Law	The criminal process. Constitutional and legal problems associated with arrest, search and seizure, and due process of law.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled
CRJ	420	Imperatives of Proof	Problems and means of establishing identity and fact in relation to arrest, detention, adjudication, sentencing, and correctional case management.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater,
CRJ	441	Prevention of Crime and Delinquent Behavior	Theories of prevention, individual, group, and community approaches: intervention at appropriate stages; contemporary law enforcement, and corrections practices.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled.
CRJ	442	Community Relations in the Justice System	Focuses on developing an informed plan and policy for incorporating research findings about the surrounding community within various justice services and agencies. Topics include social stratification, minority groups, and victimology.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled

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CRJ	443	Probation and Community Corrections	Examines the probation and parole functions as well as the numerous and diverse types of community corrections programs.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100, or 301, or CRJ 100, or 301, or JUS 100, or 105, or 305 with a C or greater or be currently enrolled in one; and completed AJS 240, or CRJ 240 with a C or greater or be currently enrolled in CRJ 240.
CRJ	461	Domestic Violence	Legal, historical, theoretical, and treatment aspects of domestic violence, including child abuse, woman battering, incest, and marital rape.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100, OR 301, or CRJ100, OR 301, or JUS 100, or 105, or 305 with a C or greater, or be currently enrolled in one of these.
CRJ	463	Occupational Crime	Overview of major issues in business, professional, and official rule violations. Includes consumer fraud, securities violations, unethical professionalism, and political corruption.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better
CRJ	464	Organized Crime	The nature of organized crime and its illegal activities, theories of containment, and efforts by justice agencies to counter its dominance in society.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100, OR 301, or CRJ100, OR 301, or JUS 100, or 105, or 305 with a C or greater, or be currently enrolled.
CRJ	470	Discretionary Justice	Use/abuse, key issues/manifestations of discretion in legal system and other societal institutions. Theoretical/empirical linkages between discretion and discrimination, based on race, ethnicity, and gender.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	L or SB	Pre-requisites: completed AJS 100, OR 301, or CRJ100, OR 301, or JUS 100, or 105, or 305 with a C or greater, or enrolled in; and completed ENG 101 or 105 with a C or greater
CRJ	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	485	Student Assessment	Students may attend a mid-semester information session on the assessment process. At the end of the semester, students take part in a standardized examination and self-administered survey. Y/E grade only. Students must register for this class their final semester.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	0.		
CRJ	492	Honors Directed Study		N	LEC	N	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-6		
CRJ	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-6	L	Pre-requisites: Must be an Honors student
CRJ	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-3		Pre-requisites: completed AJS 100, OR 301, or CRJ100, OR 301, or JUS 100, or 105, or 305 with a C or greater, or be currently enrolled in one of these
CRJ	501	Seminar in Criminal Justice	Overview of the American criminal justice system, with emphasis on policy issues in police, courts, sentencing, corrections.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	502	Seminar in Criminology	Theory and research on the nature, causes, and prediction of criminal careers and events.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	503	Research Methods	Introduces data analysis; overview of research methods used in social science research, including experimental design, survey research, field research, and evaluation research.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	504	Statistical Tools for Criminology and Criminal Justice	Focuses on essential statistical analysis that can be used in criminal justice and related agencies.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	505	Theory and Practice in Criminal Justice	Capstone course for the MA in Criminal Justice; provides a synthesis of the criminal justice system.	N	RSC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	510	Criminal Justice Planning and Program Evaluation	Examines the application of alternative models of strategic planning to the criminal justice system. Covers methods of evaluating criminal justice policies and practices.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	511	Applied Data Analysis in Criminal Justice	Examines a variety of tools used in the analysis of criminal justice data, including GIS mapping.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	512	Seminar in Policing	Graduate-level review of policing and police organizations. Seminar examines research on police strategies and practices designed to address crime.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	512	Seminar in Policing	Graduate-level review of policing and police organizations. Seminar examines research on police strategies and practices designed to address crime.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	513	Seminar in Courts and Sentencing	Overview of the nature, proposed principles, and theoretical doctrine of the courts and sentencing policies in criminal justice.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	514	Seminar in Corrections	Theory, research, and policy issues regarding community-based and institutional correction programs.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	515	Seminar in Women and Crime	Introduces students to issues regarding women and the criminal justice system, focusing on their roles as offenders, victims and professionals.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	515	Seminar in Women and Crime	Introduces students to issues regarding women and the criminal justice system, focusing on their roles as offenders, victims and professionals.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students

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CRJ	516	Seminar in Criminal Justice Organization and Management	Graduate-level review of policing and police organizations. Seminar examines research on police strategies and practices designed to address crime.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	517	Seminar on Juvenile Delinquency and Juvenile Justice	Examines patterns and correlates of delinquency within the context of theories of delinquency. Reviews the response of the juvenile justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	518	Seminar on Race/Ethnicity, Crime, and Justice	Theoretical perspectives and research on the overrepresentation of racial minorities as victims, offenders, and defendants in the criminal justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	519	Seminar on Victimization	Examines theory and research concerning victimization and consequences for victims, society, and the justice system. Also examines effective responses to victims' post-crime needs.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	520	Seminar on Violent Crime	Examines patterns and correlates of violent crime, as well as prevention strategies and policy implications.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	521	Seminar on the Nature of Crime	Examines patterns and correlates of crime at individual, situational, and aggregate levels. Topics include defining crime, offender typographies, and criminal careers.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	522	Seminar on Gangs and Crime	Theoretical perspectives and research on gangs and crime, and on the role of the community and the criminal justice system in causes and control.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	524	Seminar on Punishment and Society	Examines the fundamental philosophical principles of justice and punishment. Includes a comparative and historical perspective.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	525	Seminar on Life-Course Criminology	Provides an intensive examination of life-course explanations of crime, the life-course perspective and a theoretical orientation, and research methods used in life-course research.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	534	Program Evaluation in Criminal Justice	Covers methods of program evaluation, principles of research design, and evaluation tools and resources.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Criminology and Criminal Justice	1.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students

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CRJ	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	601	Seminar on Criminological Theory	Examines historical and contemporary criminological theories.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	602	Seminar on Criminal Justice Policies and Practices	Analyzes responses to crime and the operation of criminal justice system, with emphasis on theory and research on effectiveness of policies and practices of the system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	603	Advanced Research Design	Exposes students to advanced topics in research design and methodology in preparation for writing the doctoral dissertation.	N	RSC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	604	Advanced Statistical Analysis	Use and application of advanced statistical techniques and multivariate analysis of data.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	605	Topics in Quantitative Methods	Explores advanced techniques of statistical analysis within the field of criminal justice.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	606	Advanced Topics in Theoretical Criminology	Focuses on criminological theory construction, historical and contemporary theoretical debates within criminology, theory testing, empirical support for theories, and theoretical integration.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	608	Advanced Topics in Courts and Sentencing	Focuses on recent research on charging, plea bargaining, bail decision making, jury decision making and sentencing, as well as the impact of recent reforms directed at the criminal court system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	609	Advanced Topics in Corrections	Provides a critical examination of the theoretical framework underpinning current correctional policy (institutional and community based), as well as advanced, in-depth analyses of contemporary issues surrounding corrections.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	610	Advanced Topics in Juvenile Justice	Examines the meaning of the concept of juvenile delinquency as a separate entity in the criminal justice system. Considers the relationship between social attitudes and definitions of youthful law violation, and reviews studies on various forms of delinquency, such as drug offenses, sex delinquency, and status offenders. Also focuses on the internal workings of the juvenile justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	612	Advanced Topics in Race, Gender, and the Criminal Justice System	Examines the interrelationships among race and ethnicity, gender, crime and the criminal justice system. Focuses on theoretical perspectives and empirical research on racial minorities and women as victims, offenders, and criminal justice professionals.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	613	Qualitative Methods	Provides students with an examination of the design, execution, and write-up of qualitative research. Discusses methods of data collection, including participant-observation, ethnography, and interviewing.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-15		
CRJ	462	Gangs	Critical examination of the history and development of gangs, including criminal justice system responses to gangs and gang-related behaviors.	N	LEC	N	OPT	INACTIVE College Human Services	INACTIVE School of Criminology & Criminal Justice	3.		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled in one of these.
CSE	100	Principles of Programming with C++	Principles of problem solving using C++, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	101	Introduction to Engineering Design	Introduces engineering design, teaming, engineering profession; computer models and programming; communication skills; design of electrical and computer-based systems. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	2.		
CSE	110	Principles of Programming with Java	Concepts of problem solving using Java, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	120	Digital Design Fundamentals	Number systems, conversion methods, binary and complement arithmetic, Boolean algebra, circuit minimization, ROMs, PLAs, flipflops, synchronous sequential circuits. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	180	Computer Literacy	Students gain fluency in integrating technology to efficiently and effectively solve problems using computational thinking.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	182	Applied Problem Solving with C#.Net	Introduces object oriented programming, problem solving, fundamental algorithms and techniques, computer systems concepts, and implementation of programs using Visual C#.Net platform.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	183	Success in Computer Science and Engineering Programs	Overview of the computer science and computer systems engineering fields as well as academic success tips for students.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		

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CSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	205	Object-Oriented Programming and Data Structures	Problem solving by programming with an object-oriented programming language. Introduces data structures. Overview of computer science topics. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	Pre-requisites: CSE 100 or 110 with C or better or currently enrolled
CSE	220	Programming for Computer Engineering	Introduces procedure programming languages (C/C++) and hardware descriptive language (VHDL). fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science & Engineer PRE or BSE; Must have received a C or greater in CSE 120 or EEE 120 AND CSE 205 or CSE 210
CSE	230	Computer Organization and Assembly Language Programming	Register-level computer organization. Instruction set architecture. Assembly language. Processor organization and design. Memory organization. IO programming, Exception/interrupt handling. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: CSE 120 or EEE 120 with C or better; CSE 100, CSE 110 or CSE 200 with C or better OR Computer Science & Engr Graduate student; Credit for CSE 230 or CSE 330 only
CSE	240	Introduction to Programming Languages	Introduces the procedural (C/C++), applicative (LISP/Scheme), and declarative (Prolog) languages.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: CSE 205 with C or better
CSE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6		
CSE	301	Computing Ethics	Ethics for computing majors: history of computing, intellectual property, privacy, ethical frameworks, professional ethical responsibilities, and risks of computer-based systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		Pre-requisites: Computer Science & Engineering BS/BSE student; CSE 205 with C or better
CSE	310	Data Structures and Algorithms	Advanced data structures and algorithms, including stacks, queues, trees (B, B+, AVL), and graphs. Searching for graphs, hashing, external sorting.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 220 or CSE 240 with a C or better; MAT 243 with a D or better OR Computational Math Sciences student; CSE 220 or CSE 240 with C or better; MAT 243 or MAT 300 with D or better
CSE	320	Design and Synthesis of Digital Hardware	Design and synthesis of digital hardware with hardware description language, computer-aided design tools, and programmable devices. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 220 with C or better; CSE 230 or EEE 230 with C or better; Credit for CSE 320 or CSE 422 only
CSE	325	Embedded Microprocessor Systems	System-level programming and analysis of embedded microprocessors systems. Fundamental concepts of digital system design for embedded system applications. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 220 with C or better or currently enrolled; CSE 230 or EEE 230 with C or better or currently enrolled; Credit for CSE 325 or CSE 421 only
CSE	340	Principles of Programming Languages	Formal syntactic and semantic descriptions, compilation and implementation issues, and theoretical foundations for several programming paradigms. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 310 with C or better; CSE 230 or EEE 230 with C or better OR CSE Graduate students
CSE	355	Introduction to Theoretical Computer Science	Introduces formal language theory and automata, Turing machines, decidability/undecidability, recursive function theory, and complexity theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Syst Engr BSE or Computer Science BS students and have received a C or greater in CSE 310 OR CSE Graduate students
CSE	360	Introduction to Software Engineering	Software life cycle models; project management, team development environments and methodologies; software architectures; quality assurance and standards; legal, ethical issues. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS students and have received a C or greater in CSE 220 or CSE 240 or currently enrolled OR CSE Graduate students
CSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	408	Multimedia Information Systems	Design, use, and applications of multimedia systems. Introduces acquisition, compression, storage, retrieval, and presentation of data from different media such as images, text, voice, and alphanumeric.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Systems Engineering BSE or Computer Science BS students CSE 310 with C or better
CSE	412	Database Management	Introduces DBMS concepts. Data models and languages. Relational database theory. Database security/integrity and concurrency. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: - Computer Systems Engr BSE or Computer Science BS student; CSE 310 with a C or better or currently enrolled
CSE	414	Advanced Database Concepts	Object-oriented data modeling, advanced relational features, JDBC and Web access to databases, XML and databases, object-oriented databases, and object-relational databases.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 412 with a C or better or currently enrolled
CSE	420	Computer Architecture I	Computer architecture. Performance versus cost tradeoffs. Instruction set design. Basic processor implementation and pipelining.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better or currently enrolled
CSE	423	Systems Capstone Project I	Development process: specification, design, implementation, evaluation, and testing with economic, social, and safety considerations. Technical communication and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3-4	L	Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 320, 325, 360 with a C or better; May not enroll if received a C or better in CSE 461 or 485
CSE	424	Systems Capstone Project II	Continuation of capstone project started in CSE 423. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science or Computer Systems Engr BS or BSE students; Must have received a C or greater or be currently enrolled in CSE 423
CSE	430	Operating Systems	Operating system structure and services, processor scheduling, concurrent processes, synchronization techniques, memory management, virtual memory, input/output, storage management, and file systems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better; CSE 310 with a C or better OR Graduate CSE student
CSE	432	Operating System Internals	IPC, exception and interrupt processing, memory and thread management, user-level device drivers, and OS servers in a modern microkernel-based OS. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Systems Engineering or Computer Science BS/BSE student; CSE 430 with C or better

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CSE	434	Computer Networks	Distributed computing paradigms and technologies, distributed system architectures and design patterns, frameworks for development of distributed software components.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better or currently enrolled.
CSE	438	Embedded Systems Programming	Development of embedded system software, I/O handlers, and multiple threaded programs. Scheduling algorithms. Embedded software structures. Real-time operating system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 325 with C or better
CSE	440	Compiler Construction I	Introduces programming language implementation. Implementation strategies such as compilation, interpretation, and translation. Major compilation phases such as lexical analysis, semantic analysis, optimization, and code generation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 340 with a C or better or currently enrolled; CSE 355 with a C or better or currently enrolled.
CSE	445	Distributed Software Development	Distributed system architectures and design, service-oriented computing, and frameworks for development of distributed applications and software components. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better in CSE 360 or be currently enrolled.
CSE	450	Design and Analysis of Algorithms	Design and analysis of computer algorithms using analytical and empirical methods; complexity measures, design methodologies, and survey of important algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better in CSE 310 or be currently enrolled.
CSE	457	Theory of Formal Languages	Theory of grammar, methods of syntactic analysis and specification, types of artificial languages, relationship between formal languages, and automata.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering or Computer Science - BS students and a grade of C or better in CSE 355 or be currently enrolled.
CSE	459	Logic for Computing Scientists	Propositional logic, syntax and semantics, proof theory versus model theory, soundness, consistency and completeness, first order logic, logical theories, automated theorem proving, ground resolution, pattern matching unification and resolution, Dijkstras logic, proof obligations, and program proving.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 355 with a C or better or currently enrolled.
CSE	460	Software Analysis and Design	Object-oriented and structured analysis and design; software architecture and design patterns; component-based development; software safety and reliability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS student; CSE 360 with a C or better or currently enrolled.
CSE	461	Software Engineering Project I	First of two-course software team-development sequence. Planning, management, design, and implementation using object-oriented technology, CASE tools, CMM-level-5 guidelines. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Systems Engineering or Computer Science - BS students and a grade of C or better in CSE 460 or be currently enrolled. May not enroll if received C or better in CSE 423, or 485
CSE	462	Software Engineering Project II	Second of two-course software team-development sequence. Software evolution, maintenance, reengineering, reverse engineering, component-based development, and outsourcing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Systems Engineering BSE or Computer Science BS students; CSE 461 with a C or better or be currently enrolled; Pre- or Co-requisite: CSE 445 (with a C or better if completed)
CSE	463	Introduction to Human Computer Interaction	Design, evaluate, and implement interactive software intended for human use.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS student; CSE 310 with a C or better or currently enrolled.
CSE	465	Information Assurance	Concepts of information assurance (IA); basic IA techniques, policies, risk management, administration, legal and ethics issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Information Systems, Computer Systems Engineering BSE, Computer Science BS or Industrial Engineering BSE students and a grade of C or better in CIS 300 or CSE 360 or IEE 305 or currently enrolled
CSE	466	Computer Systems Security	Countermeasures to attacks to computer systems from miscreants (or hackers) and basic topics of cryptography and network security.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science BS or Computer Systems Engineering BSE students; CSE 310 and CSE 355 with a C or better
CSE	467	Data and Information Security	Basic concepts of security and privacy, data and database security, access controls, trust models, watermarking, and private information retrieval.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science or Computer Systems Engineering students; CSE 310 and CSE 355 completed with a C or better or currently enrolled
CSE	468	Computer Network Security	Practical network security exposure and hands-on experience about basic concepts, case studies, and useful tools.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 310 with C or better
CSE	470	Computer Graphics	Introduces basic concepts of interactive computer graphics, realistic rendering, and 3-D viewing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better or currently enrolled in CSE 310 AND a grade of D or better in MAT 342 or 343 or currently enrolled.
CSE	471	Introduction to Artificial Intelligence	State space search, heuristic search, games, knowledge representation techniques, expert systems, and automated reasoning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 310 AND CSE 240 or be currently enrolled.
CSE	476	Introduction to Natural Language Processing	Principles of computational linguistics, formal syntax, and semantics, as applied to the design of software with natural (human) language I/O.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 310 or be currently enrolled.
CSE	477	Introduction to Computer-Aided Geometric Design	Introduces basic concepts of 3-D computer geometry, including curves, surfaces, meshes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems & Engineering BSE or Computer Science BS students; CSE 470 with C or better; MAT 343 (or MAT 342) with D or better
CSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	485	Computer Science Capstone Project I	First course in capstone sequence for computer science majors emphasizing development process, technical skills, teamwork, and communication. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 310 and CSE 360 with C or better; may not enroll if received a C or better in CSE 423 or CSE 461
CSE	486	Computer Science Capstone Project II	Second course in capstone sequence for computer science majors continuing the development process, technical skills, teamwork, and communication. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 485 or currently enrolled.

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CSE	492	Honors Directed Study		Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6		Pre-Requisites: Must be an honors student.
CSE	493	Honors Thesis		Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6	L	Pre-requisites: Must be an honor student.
CSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		Pre-requisites: CSE 310 with a grade of D or better
CSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-7		Pre-requisite: Computer Systems Engineering or Computer Science - BS student and cumulative GPA must be greater than or equal to 2.50 OR Graduate Engineering students.
CSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-3		
CSE	507	Virtual Reality Systems	Computer-generated 3-D environments, simulation of reality, spatial presence of virtual objects, technologies of immersion, tracking systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science PHD, Computer Science MCS, Comp Sci/Engr (Info Assurance) PHD or Comp Sci (Art/Media/Engr) PHD students AND C or better in CSE 408 or CSE 470 or CSE 508
CSE	509	Digital Video Processing	Concepts of digital video compression, video analysis, video indexing, browsing and retrieval, video transmission over networks, video processors, MPEG 1, 2, 4, and 7 standards.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Science Engineering graduate student
CSE	510	Database Management System Implementation	Implementation of database systems. Data storage, indexing, querying, and retrieval. Query optimization and execution, concurrency control, and transaction management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	511	Semi-Structured Data Management	Addresses the data management issues for semi-structured data, which are commonly found in Web applications. Covers techniques on modeling, storing, querying and searching data without schemas, with optional confidence, and/or provenance information. Requires knowledge on relational databases and programming skills.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	512	Distributed Database Systems	Distributed database design, query processing, and transaction processing. Distributed database architectures and interoperability. Emerging technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	515	Multimedia and Web Databases	Data models for multimedia and Web data; query processing and optimization for inexact retrieval; advanced indexing, clustering, and search techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	520	Computer Architecture II	Computer architecture description languages, computer arithmetic, memory-hierarchy design, parallel, vector, multiprocessors, and input/output.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	522	Real-Time Embedded Systems	Development of real-time embedded systems, scheduling algorithms, embedded software structures, real-time operating system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	530	Embedded Operating System Internals	Investigating Linux source including: memory management, kernel synchronization and driver design topics. Designing, coding, testing, and evaluating embedded operating system software in a Linux environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	531	Distributed and Multiprocessor Operating Systems	Distributed systems architecture, remote file access, message-based systems, object-based systems, client/server paradigms, distributed algorithms, replication and consistency, and multiprocessor operating systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	532	Advanced Operating System Internals	Memory, processor, process and communication management, and concurrency control in the Windows NT multiprocessor and distributed operating system kernels and servers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	534	Advanced Computer Networks	Advanced network protocols and infrastructure, applications of high-performance networks to distributed systems, high-performance computing and multimedia domains, special features of networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	535	Mobile Computing	Mobile networking, mobile information access, adaptive applications, energy-aware systems, location-aware computing, mobile security and privacy.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	536	Advanced Operating Systems	Protection and file systems. Communication, processes, synchronization, naming, fault tolerance, security, data replication, and coherence in distributed systems. Real-time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	539	Applied Cryptography	Uses cryptography for secure protocols over networked systems, including signatures, certificates, timestamps, electrons, digital cash, and other multiparty coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	543	Information Assurance and Security	Comprehensive understanding of information assurance and security problems with the solutions as well as hands-on experiences about applying these solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student

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CSE	545	Software Security	Theories and tools for software security, including secure design, threat analysis and modeling, security testing and coding.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	548	Advanced Computer Network Security	Comprehensive understanding of network security and corresponding solutions, including cryptography, access control, secure Web transactions, e-mail security, and viruses.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	550	Combinatorial Algorithms and Intractability	Combinatorial algorithms, nondeterministic algorithms, classes P and NP, NP-hard and NP-complete problems, and intractability. Design techniques for fast combinatorial algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	552	Randomized and Approximation Algorithms	Introduces two important areas of algorithm design for graduate students. A randomized algorithm is allowed to rely on the outcome of a random experiment in deciding on its next step. In many applications, randomized algorithms are simpler than any deterministic algorithms known, but in several cases, they are in fact more powerful or more efficient than any deterministic algorithms. Covers basic paradigms for randomized algorithm design and analysis, as well as for derandomization.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	555	Theory of Computation	Rigorous treatment of regular languages, context-free languages, Turing machines and decidability, reducibility, and other advanced topics in computability theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	561	Modeling and Simulation Theory and Application	Modeling theories, simulation protocols, object-oriented modeling, model design, simulation analysis, network-based systems, discrete-event modeling, continuous modeling, hybrid modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	563	Software Requirements and Specification	Examines the definitional stage of software development; analysis of specification representations, formal methods, and techniques emphasizing important application issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	564	Software Design	Examines software design issues and techniques. Includes a survey of design representations and a comparison of design methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	565	Software Verification, Validation, and Testing	Test planning, requirements-based and code-based testing techniques, tools, reliability models, and statistical testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	566	Software Project, Process, and Quality Management	Project management, risk management, configuration management, quality management, and simulated project management experiences.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	570	Advanced Computer Graphics I	Hidden surface algorithms, lighting models, and shading techniques. User interface design. Animation techniques. Fractals and stochastic models. Raster algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	571	Artificial Intelligence	Definitions of intelligence, computer problem solving, game playing, pattern recognition, theorem proving, and semantic information processing; evolutionary systems; heuristic programming.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	572	Data Mining	Advanced data mining techniques: classification, clustering, association, preprocessing; performance evaluation; information assurance, Web mining, security and privacy issues, and other applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	573	Advanced Computer Graphics II	Modeling of natural phenomena: terrain, clouds, fire, water, and trees. Particle systems, deformation of solids, antialiasing, and volume visualization.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	574	Planning and Learning Methods in AI	Reasoning about time and action, plan synthesis and execution, improving planning performance, applications to manufacturing intelligent agents.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	576	Topics in Natural Language Processing	Comparative parsing strategies, scoping and reference problems, nonfirst-order logical semantic representations, and discourse structure.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	577	Advanced Geometric Modeling I	Advanced concepts of geometric modeling: rectangular and triangular surfaces, triangle meshes, Voronoi diagrams, discrete and continuous shape measures, volumes and volume visualization.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	578	Advanced Geometric Modeling II	Advanced concepts of geometric modeling: Bezier curves, B-spline curves, blossoming, polygons, geometric algorithms, shape analysis. May be repeated for credit.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	579	NURBS: Nonuniform Rational B-Splines	Projective geometry, NURBS-based modeling, basic theory of conics and rational Bezier curves, rational B-splines, surfaces, rational surfaces, stereographic maps, quadrics, IGES data specification.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student or a Mathematics PHD student
CSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	GNA	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		

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CSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		Pre-requisites: Must be a Computer Science or Computer Science Engineering graduate student
CSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-15		
CSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-15		
CSE	100	Principles of Programming with C++	Principles of problem solving using C++, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	CS	
CSE	180	Computer Literacy	Students gain fluency in integrating technology to efficiently and effectively solve problems using computational thinking.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
CSS	432	Issues in Chicana and Chicano Gender	Analyzes social construction of gender identities; emphasis on impact of American and Mexican cultural values on normative gender relations.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		C
CSS	490	Field Studies in the Chicana and Chicano Community	Introduces principles and methods of qualitative research applied to the Chicana and Chicano community.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
CST	100	Object-Oriented Software Development I	Basic concepts of object-oriented analysis, design, and programming using Java. Basic Java variables, expressions, arrays, statements, methods, and classes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	150	Digital Systems	Number systems and arithmetic, Boolean algebra, combinational logic, K-maps, ROMs, PLAs, flip-flops, synchronous sequential circuits, introduction to HDL.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		CS
CST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-3		
CST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	200	Object-Oriented Software Development II	Object-oriented programming and design; information hiding; inheritance and run-time binding; polymorphism; recursion; GUI programming. Introduces software engineering concepts, including software development life cycles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	201	Object-Oriented Software Development II Lab	Hands-on development and programming using objects, inheritance, and polymorphism; GUI programming; introduction to software engineering concepts, UML tools.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering	1.		

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CST	220	Programming Languages for Technology with C/C++ and Scripting	Programming language design and implementation concepts through programming C/C++ and scripting; language paradigms, compilation and interpretation, types, run-time management, data control, pointers, inheritance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	230	Applied Data Structures	Applications of data structures: strings, stacks, queues, trees, hash tables. Time/space complexity, recursion, searching, and sorting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	250	Microcomputer Architecture and Programming	Microcomputer architecture, instruction set, assembly language programming and debugging, I/O considerations, memory interface, peripherals and busses, exception/interrupt handling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	251	Microcomputer Architecture and Programming Laboratory	Hands-on experience in assembly language programming and debugging. May be taken concurrently with, or subsequent to, CST 250.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering	1.		
CST	256	C Programming for Engineering Technology	Applied and practical problem solving using the C programming language.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	298	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	315	Software Enterprise I: Tools and Process	Introduces tools and techniques used in software enterprise/development, including coding, design, testing, configuration management, and personal process management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	316	Software Enterprise II: Construction and Transition	Best practices in software construction in the context of a team project, including refactoring, defensive programming, unit testing, and configuration and release management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	335	Applications of Computer Theory	Introduces and applies formal language theory and automata, Turing machines, decidability, undecidability, recursive function theory, and complexity theory.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	350	Digital Systems Design with Verilog	Digital system design using Verilog. Structural and behavioral modeling. Design examples include finite-state machines, RISC CPUs, and UARTs. Requires design projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Prerequisite:Technology Science or Engineering Nondegree/BS/BSE AND University Cum. GPA 2.25 or greater AND earned D or greater in CET150 or CST150 or currently enrolled OR must be Technology Science MS/MSTECH, or AppBio or Engineering MS/MSE/PHD student
CST	359	Internet Networking Protocol	Computer networking for application, transmission control and network layers using the Internet protocols as a model; reliability and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	364	Computer Architecture	Price/performance analysis, instruction set design, RISC/CISC, processor design and implementation, pipelining, instruction-level parallelism, memory hierarchy, storage and I/O systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must have earned D or greater in CET 200 or CST 200 or be currently enrolled AND earned D or greater in CET 354 or CST 354 or be currently enrolled OR must be Technology Science BAS, MS, MSTECH, or Master Computing Studies student
CST	383	Shell and Script Programming with UNIX	UNIX operating system programming of shells, environment and 4th-generation languages and tools, such as sed, awk, perl, grep, make.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites:Must be Technology Science non-degree or BS student AND earned C or greater in CET 100, CET256, CST100, or CST256 or currently enrolled OR must be Technology Science BAS, MS, MSTECH, Master Computing Studies, or Engineering PHD student
CST	386	Operating Systems Principles	Fundamentals of operating systems, process management, scheduling and synchronization techniques, memory and file management, protection and security issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites:Tech Science or Eng BS/BSE/BAS/NonDegree AND C or greater in CET100/CET256/CST100 or CST256 or currently enrolled AND C or greater in CET354 or CST354 or currently enrolled OR Tech Sci BAS/MS/MSTECH, Master Comp Studies or Eng PHD student
CST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	401	Digital Signal Processing for Multimedia	Applies DSP techniques to multimedia. Digital filter analysis and design. Time and frequency techniques. Computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	415	Software Enterprise III: Inception and Elaboration	Third course in the four-course enterprise sequence. Students perform inception (project launch) and elaboration (requirements analysis) activities in project teams.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	L	
CST	416	Software Enterprise IV: Project and Process Management	Project-centric course focusing on applying software process, project management, and technical leadership. Final course in the software enterprise sequence.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	420	Foundations of Distributed Web-Based Applications in Java	Principles underlying design and implementation of distributed software components; sockets, protocols, threads, XML, serialization, reflection, security, and events.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be Technology Science BAS/BS/MS/MSTECH student AND earned a C or greater in CET 230 or CST 230 or be currently enrolled AND earned a D or greater in CET 386 OR CST 386 or be currently enrolled
CST	425	Server Software Programming	Design and implementation of software servers, threaded socket servers, servers for distributed Web-based applications; security for the Web.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must have earned C or greater in CET420 or CST420 or currently enrolled
CST	427	Distributed Object Systems	Distributed applications with Web services, NET, RMI, CORBA; concepts and frameworks for managing, registering, locating, and securing distributed object applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must have earned C or greater in CET420 or CST420 OR Corequisites: CET420 or CST420
CST	428	Web-Client User Interface Programming	Client-server model for window interfaces. Java Swing, Applets, mark-up and scripting languages; Web tools and related technologies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must have earned C or greater in CET 420 or CST 420 or currently enrolled
CST	433	Database Technology	Introduces database technologies and DBMS, data models, and languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: CST 230 and MAT 243 completed with a C or better or currently enrolled
CST	441	Software for Personal Digital Assistants	Mobile computing using Java's K, Virtual Machine, MIDP for wireless applications; user interfaces, persistent data storage, and networking.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CST	452	Advanced Digital Systems Design with VHDL	Uses VHDL to design components of computers and digital systems. Design examples include RISC processor and ALU, memory controller, I/O controller. Requires design projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Prerequisites: Must be either Tech Sci or Eng BS/BSE/BAS/NonDegree AND Univ Cum GPA is 2.25 or greater AND earned C or greater in CET350 or CST350 or be currently enrolled OR must be Tech Sci or Eng graduate student
CST	456	Microcomputer Systems Interfacing	Programming using BIOS and DOS routines. Disk operations, TSR routines, and device drivers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Prerequisites: Must be either Tech Sci or Eng BS/BSE/BAS/NonDegree AND Univ Cum GPA is 2.25 or greater AND earned C or greater in CET354 or CST354 or enrolled AND D or greater in CET420 or CST420 or enrolled OR must be Tech Sci or Eng graduate student
CST	457	Advanced Assembly Language Applications	Applies 32-bit assembly language programming using advanced assembler techniques and interfacing to high-level languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Tech Sci or Eng BS/BSE/BAS/NonDegree AND earned D or greater in CST354 or currently enrolled AND Univ Cum GPA is 2.25 or greater AND earned D or greater in CET354 or currently enrolled OR must be Tech Sci or Eng grad student
CST	458	Digital Computer Networks	Network hardware and software, topologies, protocols, OSI model, LANs, WANs, Internet; basic concepts of packet switching, routing, error controlling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	473	Digital/Data Communications	Signals, distortion, noise, and error detection/correction. Transmission and systems design. Interface techniques and standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		
CST	481	Information System Security	Implementation, development, and analysis of computer and network security policies, legal ramifications and development and analysis of risk management measures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	482	Network Forensics	Use and creation of advanced network forensics tools: intrusion detection and prevention, honeynets, traffic routing and management, and data reduction and graphing tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	483	Cyber Security Capstone Project	Applies security techniques to a real-world situation. Development of security policy, risk solutions, and incident response facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	2.		
CST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	486	Embedded C Programming	Programming concepts for embedded systems. Interfacing and controlling LED, LCD, keypads, buttons. Embedded OS concepts. Timers and interrupts. Serial communication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Tech Sci or Eng BS/BSE/BAS/NonDegree AND Univ Cum GPA is 2.25 or greater AND earned C or greater in CET383 or CST383 AND CET350 or CST350 or be currently enrolled OR must be Tech Science MS/MSTECH or Eng MS/MSE/PHD student
CST	488	Systems Administration of UNIX	UNIX administration of system and user services using command line and GUI tools. System security and forensics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Technology Science or Engineering BS/BSE/BAS/Graduate NonDegree/MS/MSTECH AND earned C or greater in CET383 or CST383 AND CET386 or CST386 or be currently enrolled OR must be Tech Sci MS/ MSTECH or Eng PHD student
CST	489	Network Administration with TCP/IP	Configuration and installation of networks: addressing, routing, naming, and LAN and MAN services. Network security checking, monitoring, and basic forensics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Technology Science or Engineering BS/BSE/BAS/Graduate NonDegree/MS/ or MSTECH AND earned D or greater in CET383 or CST383 or be currently enrolled AND earned D or greater in CET459 or CST459 or be currently enrolled
CST	490	Reading and Conference		N	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering	1-6	L	Pre-requisites: Must be an Honors student
CST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		Prerequisites: Must be Technology Science or Engineering BS/BSE/BAS/NonDegree AND University Cum. GPA is 2.25 or greater OR must be Technology Science MS/MSTECH or Engineering MS/MSE/PHD student
CST	496	Ethics and Professionalism in Computing	Studies major social and ethical issues in computing, including impact of computing on society, ethical behavior, and social responsibility.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		
CST	497	Honors Colloquium		Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-7		Prerequisites: Must be Technology Science or Engineering BS/BSE/BAS/NonDegree AND University Cum. GPA is 2.25 or greater OR must be Technology Science MS/MSTECH or Engineering MS/MSE/PHD student
CST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-3		
CST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	520	Computer Architecture	Basics of computer architecture. RTN, RISC, CISC concepts; computer arithmetic; ALUs; memory systems; I/O.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: CET364 or CST364 OR Graduate, Non-Degree, or Post Bacc student AND College of Engineering & Applied Sciences or School of Technology

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CST	533	Database-Centric Enterprise Applications Development	Solutions for enterprise software systems based on relational database technology. Persistence solutions in middleware frameworks. O/R, XML, and scalability issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Graduate or Non Degree Students and University Cum GPA 3.0 or greater
CST	540	Internet-Enabled Embedded Devices	Accessing hardware devices through Internet, including Applets, HTTP, custom byte streams, XML-RPC, SOAP. Building network-based applications that interface hardware.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	552	Digital Systems Design	Digital system design techniques and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre Requisites: Graduate or Non Degree Students Only
CST	554	Distributed Computing	Topics in distributed systems, including communications, distributed operating systems, fault-tolerance, and performance issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	556	Distributed Applications for Windows Platforms	Distributed Web-based applications using Windows frameworks such as .NET. Essential components, XML, remoting, Web services, windows services, user interfaces.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre Requisites: Graduate or Non Degree Students Only
CST	557	Embedded Applications Development	Current trends in embedded system development using C, assembly, and special purpose hardware. Development versus target environment issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	566	Principles and Practices of Operating Systems	Principles and practices of operating systems: virtual memory systems, I/O devices and systems, file systems and organization, and other topics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	576	Embedded Real-Time Programming	Topics in real-time embedded operating systems such as synchronization, communications, file systems, and memory sharing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Minimum University Cum GPA 3.0
CST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	586	Digital Modeling Techniques	Digital system modeling and simulation using hardware description languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering	1-12		
CST	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		

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CST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		
CST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-15		
CST	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		
DAH	101	Introduction to Dance	Introduces dance as a performing art and creative expression. Explores history, philosophy, technique, and terminology of ballet, modern dance, jazz, and other forms influenced by Western civilization. Required movement experiences in the studio and concert attendance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DAH	101	Introduction to Dance	Introduces dance as a performing art and creative expression. Explores history, philosophy, technique, and terminology of ballet, modern dance, jazz, and other forms influenced by Western civilization. Required movement experiences in the studio and concert attendance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DAH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	201	Dance in World Cultures	Orientation to the study of dance cultures from a global perspective. Requires movement experiences in the studio. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DAH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	301	Philosophy and Criticism of Dance	Philosophical issues in dance and dance criticism, with emphasis on written analysis and interpretation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	L or HU	Pre-requisites: Must have completed ENG 101 or 105 with a grade of C or better, or be currently enrolled in ENG 101 or 105
DAH	302	Cross-Cultural Dance Studies	Examines the field of ethnochoreology, ethnographic methods, and interpretive research practices. Develops critical writing, thinking, and viewing skills for comparative dance study.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	(L or HU) & G	Pre-reqs: Must have completed DAH 201 with a C or greater or be currently enrolled; Must have completed both ENG 101 and ENG 102 OR ENG 105 with a C or greater or be currently enrolled
DAH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	401	Dance History	History of dance with a focus on Western forms from the Renaissance to contemporary times. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU	
DAH	492	Honors Directed Study	Consult with an honors advisor before enrolling. May be repeated for credit.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-6		

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DAH	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Dance T	1-6	L	Pre-requisites: Must be an Honors student
DAH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	495	Theory and Methods of Dance Research	Examines modes of inquiry, data gathering techniques, data analysis and representation, prospectus design, and presentation style for dance research studies. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAH	496	Senior Dance Studies Capstone	Original research that integrates dance and a related field of interest. Includes production of written document and public presentation. Fall semester must be completed before spring registration. May be repeated for a total of 4 semester hours.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-3		
DAH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	501	Philosophy of Dance	Analyzes traditional and contemporary theories of dance with regard to issues of expression, form, and meaning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Graduate Student
DAH	502	Cultural Concepts of Dance	Examines the close connections among culture, dance, and movement through writings in cultural theory, dance ethnology, and philosophy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		
DAH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		Pre-requisites:Must be a Graduate Student
DAH	201	Dance in World Cultures	Orientation to the study of dance cultures from a global perspective. Requires movement experiences in the studio. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Dance T	3.	HU & G	
DAN	122	Rhythmic Theory for Dance II		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	130	Dance	Introduces styles and forms of dance; ballet, modern, jazz, tap, ballroom, ethnic. Fee.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	134	Technique and Theory of Modern Dance	Elementary concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Fee.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance major
DAN	135	Technique and Theory of Ballet	Elementary ballet technique with emphasis on alignment, control, and development of the feet with proper awareness of style and phrasing. 4 hours weekly. May be repeated for credit. fee	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisites:Must be a Dance major
DAN	160	Creative Process	Explores creativity and creative processes with reference to some key historical practices and influential artists. Seeks to encourage and develop students' awareness of their own imagination and creative process through individual and group projects involving problem solving, creative tasks, and reflection.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	210	Dance Production I	Theory and practice of lighting, scenery, sound, and stage management for dance production. Labs cover all areas of production.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		

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DAN	221	Rhythmic Theory for Dance I	Elements of music, music structures, and their relationship to dance. Emphasis on rhythmic analysis and dance accompaniment. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	222	Rhythmic Theory for Dance II	Continuation of DAN 221 with an emphasis on small group/movement projects in relation to musical time and structure. CD-ROM work included. Students with rhythmic theory transfer credit may meet the enrollment requirements by passing a proficiency exam. Please contact the instructor of the course for more information	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisites:DAN 221 with a grade of D or better
DAN	234	Technique and Theory of Modern Dance	Intermediate concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Fee.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance major
DAN	235	Technique and Theory of Ballet	Advanced study of elementary ballet technique through the traditional exercises, with proper awareness of style and phrasing. 4 hours weekly. Fee.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisites:Must be a Dance major
DAN	264	Improvisational Structures	Introduces basic improvisational and choreographic principles with emphasis on current media and technology, group structures, and movement invention.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	265	Approaches to Choreography	Intermediate application of basic choreographic principles with emphasis on improvisation, form, content, and evaluative skills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: DAN 264 with C or better or currently enrolled
DAN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAN	311	Dance for the Classroom Teacher	Develops teaching methodology for implementation of dance curriculum in K-12 classrooms.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	321	Music Literature for Dance	Historical survey of music and compositional elements relative to dance. Emphasis on analysis of choreography from a musical standpoint. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must have completed DAN222 and MUS340 with a grade of C or greater or be currently enrolled
DAN	323	Dance, Computers, and Multimedia	Introduces desktop multimedia as it relates to dance creation, education, production, and research. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	CS	Pre-requisites: ART 112 or Pre- or Co-requisites: DAN 264 and 265
DAN	330	Dance	Advanced levels. Continuation of DAN 230. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	334	Technique and Theory of Modern Dance	Advanced concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Placement audition required.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance major
DAN	335	Technique and Theory of Ballet	Intermediate ballet technique with emphasis on strength, dynamics, rhythmical impulses, and transitions with awareness of proper style and phrasing. 4 hours weekly.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisites:Must be a Dance major
DAN	350	Methods of Teaching Children's Dance	Theory and practice of teaching creative dance to children. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must be a Dance major
DAN	351	Methods of Teaching Ballet	Analysis and acquisition of teaching techniques and materials for ballet.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	352	Dance Education Theory	Motivation; learning; assessment; historical, cultural, and social constructs; outreach; service; advocacy; curriculum development in dance education. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance major
DAN	354	Integrated Approaches to Dance Education	New methods of dance education pedagogy. Essential skills to employ and integrate instructional technology within dance curricula. Activities promote experiential and layered instruction in integrated approaches to multicultural pedagogy that include interdisciplinary, integrated, and immersion strategies of education. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	356	Teaching Contemporary Dance	Frameworks, skills, and strategies for teaching contemporary dance practice in multiple settings. Fee.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance Education student
DAN	364	Choreography and Accompaniment	Experience in the use of traditional and nontraditional musical structures as a basis for choreographic projects.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-Requisites: Must have completed DAN265 with a grade of C or greater or be currently enrolled
DAN	365	Advanced Choreography	Investigation and practice of contemporary styles of choreography.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must have completed DAN364 with a C or greater; must have completed DAN265 with a C or greater or be currently enrolled
DAN	371	Dance Theatre Performance/Production	Performance or technical theatre work in designated dance productions. 3 hours a week per semester hour.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	380	Performance Studies Practicum	Focus on developing rehearsal skills and achieving performance excellence through the preparation of three completed works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAN	434	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance technique. 6 hours weekly.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2-3		Pre-requisites:Must be a Dance major
DAN	435	Technique and Theory of Ballet	Study of professional advanced ballet technique with emphasis on preparation for performance. 4 hours weekly. May be repeated for credit.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisites:Must be a Dance Major
DAN	437	Dance Kinesiology	Principles of kinesiology applied to dance movement, including identification of muscular imbalances, inherited anatomical differences, and pathomechanics in dance technique.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: BFA Dance student; BIO 201 with a D or better or currently enrolled
DAN	445	Laban Movement Analysis	Theory and practice of Laban movement analysis and Bartenieff fundamentals through movement investigation, observation, notation, and analysis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance major

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DAN	471	Dance Arizona Repertory Theatre	Preprofessional modern dance company, emphasizing outreach and performance. Opportunity to work with guest artists and community schools and organizations. May be repeated for credit. fee	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAN	472	Concert Dance	Extensive preparation of repertory or new works created by experienced choreographers. Simulates dance company experience, culminating in performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	480	Senior Performance in Dance	Original choreography for group performance with analysis and critique of problems encountered in production. Dance majors realizing a performance capstone project must repeat this course for a total of 4 semester hours.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2-3		
DAN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		
DAN	492	Honors Directed Study		N	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-6		
DAN	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Dance T	1-6	L	Pre-requisites: Must be an Honors student
DAN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAN	496	Senior Dance Education Capstone	Original research that integrates dance and education. Includes production of written document and public presentation. Fall semester must be completed before spring registration. Must be repeated for a total of 4 semester hours.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DAN 350 with C or better; DAN 352 with C or better; DAN 354 with C or better; DAN 356 with C or better
DAN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-7		
DAN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAN	510	Dance Production	Theory of costuming, lighting, makeup, scenery, and sound as related to dance performance. May be repeated once for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	521	Sound Lab	Audio mixing for analog/digital recording and editing. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	1-2		Pre-requisite: Dance majors
DAN	522	Sound Design for Dance	Focus on digital recording/editing of audio compositions for choreographic and video projects. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	1-2		Pre-requisite: Must have completed DAN 521 or be co-enrolled in DAN 521
DAN	523	Multimedia Applications for Dance	Introduces desktop multimedia as it relates to dance creation, production, education, and research. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Graduate Student
DAN	534	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance for first-year graduate students. 6 hours weekly. May be repeated for credit. fee	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		Pre-requisite: Dance Graduate student
DAN	535	Technique and Theory of Ballet	Graduate study of ballet technique.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-2		Pre-requisites:Must be a Graduate Student
DAN	545	Laban Movement Analysis	Theory and practice of Laban movement analysis and Bartenieff fundamentals through movement integration, observation, critical research, notation, and analysis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	550	Graduate Dance Pedagogy: Modern	Overview of the role of modern dance technique and theory in the university curriculum including current pedagogical theory, diversity, gender. May follow or precede internship in practical teaching.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	551	Graduate Dance Pedagogy: Ballet	Advanced analysis of teaching techniques for ballet.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	564	Solo and Group Choreography I	Original choreography created for solo and group performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Graduate Student
DAN	565	Solo and Group Choreography II	Continuation of DAN 564.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must have completed DAN 564
DAN	571	Dance Theatre	Performance in specially choreographed dance productions. May be repeated for credit.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		Pre-requisites:Must be a Graduate Student
DAN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LAB	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAN	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student

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DAN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		
DAN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		Pre-requisites:Must be a Graduate Student
DAN	634	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance for second-year graduate students. 6 hours weekly. May be repeated for credit. fee	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		Pre-requisites:Must be a Graduate Student
DAN	671	Dance Arizona Repertory Theatre	Preprofessional modern dance company, emphasizing outreach and performance. Opportunity to work with guest artists and community schools and organizations. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3-4		Pre-requisites:Must be a Graduate Student
DAN	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAN	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAN	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAN	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAN	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisites:Must be a Graduate Student
DCI	510	Teacher as Researcher	Introduces teacher research as a new research genre; offers teachers guidance on planning and conducting research on their practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	511	Establishing Effective Teaching Practice	Helps beginning teachers establish and strengthen best practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	512	Developing Strategies for Teaching Practice	Helps beginning teachers refine management strategies and instructional methods.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	520	Teaching Standards Applied to Professional Practice	Develops teacher skills and self-reflective practices to assess instruction and document and achieve professional growth in teaching standards.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-3		
DCI	521	Reflective Practice in Teaching Standards	Teachers apply reflective practices to develop professional presentation portfolios.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-3		
DCI	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	530	Establish a Mentoring Partnership	Prepares veteran educators for mentoring. Mentors collaborate, reflect on their practice, and become teacher leaders through professional development.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	531	Analyzing and Planning for Professional Growth through Mentoring	Refines strategies for assessing instruction and provides collegial feedback.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student

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DCI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
DCI	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	701	Curriculum Theory and Practice	Curriculum theory and practice as a field of study. Its current orientations and applications, modes of inquiry, and community of scholars and practitioners.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	702	Interdisciplinary Research Seminar	Core research course for students in the interdisciplinary PhD in Curriculum and Instruction program.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	703	Research in Teacher Development and Leadership	Examines research in teacher education and development from preservice through in-service. Students participate in the review of research related to broad themes within the recent literature. Strands/themes of investigation include a brief review of the history of teacher education, teacher development, professional development and teacher leadership, teacher evaluation, qualitative and quantitative research in teacher education, reform in teacher education, including recent policies and politics and other issues.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	704	Adult Learning Theory and Practice	Explores the multiple dimensions of learning in adulthood, including the social contexts of learning, and cognitive and developmental aspects of learning. Focuses on the experience and practice of adult learning, and examines the various theories attempting to explain how adults learn.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	705	Teacher Leadership Theory and Professional Practice	Teacher leaders analyze leadership skills as they reflect on their own practice and professional development experience. They process knowledge of how to effectively promote positive practices among teachers at varied stages in their careers. Teacher leaders are involved in scholarly inquiry and discourse by means of leadership institutes, peer collaboration, reflective questioning and individual research. Teacher leaders also develop the perspective of the teacher as researcher as they read and critically evaluate published research related to teacher leadership in professional and academic literature.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		

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DCI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	511	Establishing Effective Teaching Practice	Helps beginning teachers establish and strengthen best practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		
DCI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
DCI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
DCI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	396	Field Experience	First-semester ITC. Observation and limited participation in a school setting. Focus on observation of development, learning, management, instruction, assessment, and motivation. 4 hours required per week.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
DCI	451	Design Research and Educational Gaming Practicum	Principles of design research as applied to educational games. Includes implementation of a design research project.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: RDG 440 with C or better; EDT 329 with C or better
DCI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
DCI	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
DCI	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
DCI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DCI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
DNC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
DNP	600	Research Methods	Course on research methods in a specific discipline.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	601	Theoretical Foundations for Advance Practice Nursing	Examines philosophical foundations of advanced nursing practice by analyzing interrelationships among theory, philosophy, practice, and research.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	602	Principles of Research Methods and Evidence-based Practice	Examines processes of scientific inquiry and their application to generating knowledge for and refining nursing practice.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	605	Advanced Health Assessment Core	Advanced health assessment skills, including history-taking strategies and physical, functional, developmental, and psychosocial assessment.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	606	Advanced Health Assessment of Older Adults Lab/Practicum	Skill-based course focused on advanced health assessment skills specific to older adults, including history-taking strategies, physical, functional, developmental, and psychosocial health assessment.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	610	Advanced Practice Nursing Role II	Second of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Must be a graduate nursing student; must have completed NUR 511 with a grade of B or better or be currently enrolled.
DNP	611	Advanced Health Assessment of Women Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment of women across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	613	Women's Health Promotion I	Focuses on theories, principles, and research related to managing the health of normal perinatal women and families.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the DNP Women's Health specialty; DNP 601, 602, 604, 605, 607 and 611 with D or better; Co-requisite: DNP 614
DNP	614	Advanced Women's Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: admission to the DNP Women's Health specialty; DNP 601, 602, 604, 605, 607 and 611 with D or better; Co-requisite: DNP 613
DNP	615	Management of Common Problems in Women's Health	Focuses on management of nursing care for high-risk perinatal women and women with common health problems.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Graduate Nursing Program: Women's Health Specialty Track; DNP 611, 612, 613 and 614 with D or better; Co-requisite: DNP 616
DNP	616	Advanced Women's Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to Graduate Nursing Program: Women's Health Specialty Track; DNP 611, 612, 613 and 614 with D or better; Co-requisite: DNP 615
DNP	621	Advanced Health Assessment of Adults Lab/Practicum	Skill-based course focuses on advanced health assessment skills, including history-taking strategies and the physical, functional, genetic, developmental, and psychosocial/cultural health assessment of adults and adolescents.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	623	Adult Health Promotion	Expands adult health assessment/promotion skills through knowledge/strategies essential for developing and interpreting data.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Enrolled in NUANPADDNP. Corequisite: DNP 624
DNP	624	Adult Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to the DNP Adult Health specialty; DNP 601, 602, 604, 605, 611, 621 and 622 with D or better; Co-requisites: DNP 623
DNP	625	Management of Common Problems in Adults	Includes theory/research that guides the management/maintenance of adults with chronic health alterations. Emphasizes psychophysiological interrelationships of illnesses.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; and must have completed DNP 623(or NUR 501) with a grade of B or better; Co-requisite: DNP 626
DNP	626	Adult Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Plans NUNURMS, NUAHNMS, NUNURDTMS or NUAHNDTMS, or NUGRNONDGR; and completed NUR 506(or enrolled) with a B or greater; and completed NUR 513(or enrolled) with Y credit
DNP	631	Advanced Health Assessment for Family Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	632	Applied Pharmacotherapeutics for the Family	Applies evidence-based pharmacotherapeutic principles to disease treatment and health promotion and maintenance for family nurse practitioners.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	633	Family Health Promotion in Primary Care I	First didactic role specialty course. Focuses on concepts and strategies to promote, manage, and maintain health of child, adult, and family.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NUNURDTMS, or NUFHNDTMS, or NUGRNONDGR, & completed NUR 500,551,552,553,554,559,564,565, with a B or greater, or be currently enrolled, & be co-enrolled in NUR 513 & 568.
DNP	634	Family Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Be in Nursing MS, or Nursing (Family Nurs Pract) or GRNU Non-Deg; & completed 500,551,552,553,554,559, 564,565 with a grade of B or greater, or be currently enrolled.

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DNP	635	Management of Common Family Problems in Primary Care II	Second didactic role specialty course utilizing knowledge from previous courses to formulate therapeutic promotion, management, and maintenance for individuals across the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:nunurdtms, or NUFHNDTMS,or NUGRNONDGR; & co-enrolled in NUR 569,& completed NUR 562 with a B or greater, or be currently enrolled, & recieved credit in NUR 513 or be currently enrolled.
DNP	636	Family Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be in NURSING MS or NUFHNDTMS; & co-enrolled in NUR 563; & completed NUR 562,568 with a grade of B or greater, & completed NUR 513 with a Y grade; or currently enrolled in these classes.
DNP	641	Advanced Health Assessment for Children Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment of children from birth to age 21 years.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	643	Developmentally Based Care of the Well Child	Focuses on current practices, research, and issues related to health promotion and disease prevention for children and adolescents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be a Nur grad student, or a grad non degree student; AND completed NUR 500, 551,552,554,558, 564,566, or be currently enrolled; & be co-enrolled in NUR 513.& 529.
DNP	644	Well Child Advanced Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be a Nur grad student, or a grad non degree student; AND completed NUR 500, 551,552,554,558, 564, 566 or be currently enrolled; & be co-enrolled in NUR 513.& 531.
DNP	645	Management of Common Problems in Pediatric Primary Care	Focuses on concepts, theories, and research as a basis for strategies related to management of illness and health maintenance for children.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS, or NUPCNDTMS, or NUGRNONDGR; & co-enrolled in NUR 530, and completed NUR 531 with a grade of B or better, or be currntly enrolled, or received credit for NUR 531 or currently enrolled.
DNP	646	Advanced Practicum II in Pediatric Primary Care	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be NUNURDTMS or NUPCNDTMS or non-deg grad; AND co-enrolled in NUR 532, & completed NUR 531,529,513 with a grade of B or greater, or be currently enrolled
DNP	651	Advanced Health Assessment of Neonates Lab/Practicum	Skill-based course focuses on advanced health assessment skills, including history-taking strategies and the physical, functional, genetic, developmental, and psychosocial/cultural health assessment of neonates.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	653	Advanced Development and Family Health Promotion: Neonatal Theory I	Concepts, theories, interventions, and research related to the promotion, management, and maintenance of physical, behavioral, and developmental needs of at-risk newborns and infants and their families.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be MS Nursing and AHN, or GRNU Non-Degree, and co-enrolled in NUR 513 & 516; & completed NUR 525,526,527,528, with a grade of B or greater, or be currently enrolled in NUR 525,526,527,528.
DNP	654	Neonatal Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be MS Nursing and AHN, or GRNU Non-Degree, and co-enrolled in NUR 513 & 515; & completed NUR 525,526,527,528, with a grade of B or greater, or be currently enrolled in NUR 525,526,527,528.
DNP	655	Management of Common Neonatal Problems	Proactive neonatal theory course focusing on the concepts, theories, and research related to acute and chronic health deviations of neonates and infants.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a graduate nursing student, and must have completed NUR 515 and 516 with a grade of B or better or be currently enrolled, & completed NUR 513 with a Y grade, or be currently enrolled, AND be co-enrolled in NUR 517.
DNP	656	Neonatal Practicum II	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must be a graduate nursing student, and must have completed NUR 515 and 516 with a grade of B or better or be currently enrolled, & completed NUR 513 with a Y grade, or be currently enrolled, AND be co-enrolled in NUR 518
DNP	659	Embryology and Genetics	Prepares advanced practice nurses to use embryology, genetics, and physiology concepts within the nursing process in the care of pediatric and neonatal patients.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in MS NUR in NUNURDTMS, or NUPCNDTMS, or NUGRNONDGR & co-enrolled in NUR 526 or 558
DNP	660	Advanced Neuropsychopathology Lifespan	Manifestations of altered neurophysiolgy and psychopathology over the lifespan. Uses evidence-based support for theoretical views of psychiatric disorders to analyze the relationships of neuropsychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	662	Advanced Mental Health Assessment Across the Lifespan Lab/Practicum	Focuses on integration of knowledge and development of skills in assessment of psychiatric disorders occurring in children, adolescents, and adults.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-2		
DNP	663	Mental Health Promotion in Adults	Analyzes issues, theories, and research in restoration and promotion of mental health. Emphasizes developing conceptual framework for psychiatric nursing.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 500, 521,551,554 559, 564, & 565 with a grade of B or greater or be currently enrolled,AND be co-enrolled in NUR 522 & NUR 512
DNP	664	Adult Psychiatric Mental Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 500, 521,551,554 559, 564, & 565 with a grade of B or greater or be currently enrolled,AND be co-enrolled in NUR 522 & NUR 512
DNP	665	Management of Common Mental Health Problems in Adults	Focuses on development of theoretical basis for intervention and a knowledge base for collaboration and consultation in the mental health area.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND completed NUR 522 with a B or better or currently enrolled; AND NUR 513 with Y or currently enrolled.
DNP	666	Adult Psychiatric Mental Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		
DNP	671	Advanced Mental Health Assessment Across the Lifespan	Focuses on comprehensive mental health assessment of psychiatric disorders occurring in children, adolescents, and families.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		

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DNP	672	Psychopharmacology Across the Lifespan	Focuses on evidence-based use of medications as a treatment for children and adolescents with mental health disorders.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	673	Mental Health Promotion in Children, Adolescents and Families	Focuses on evidence-based interventions to promote the mental health of children, adolescents, and families.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	674	Child and Family Mental Health Practicum II	Clinical experiences to become skilled in assessment and evidence-based 1:1 psychotherapy, group, and family management of common mental health disorders in children, adolescents, and families.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
DNP	675	Management of Common Mental Health Disorders in Children, Adolescents, and Families	Emphasizes the assessment and evidence-based management of common mental health disorders in children, adolescents, and adult family members.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3-4		
DNP	676	Child and Family Mental Health Practicum I	Clinical experiences to become skilled in assessment and evidence-based management of common mental health disorders in children, adolescents, and families.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-4		
DNP	677	Management of Complex and Chronic Mental Health Disorders in Children, Adolescents, and Families	Focuses on modalities of evidence-based treatment with children, adolescents, and families with complex and/or chronic psychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	678	Child and Family Mental Health Practicum III	Development of advanced skills in evidence-based management of complex and chronic psychiatric disorders in children, adolescents, and their families.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		
DNP	679	Biostatistics: Principles of Statistical Inference	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
DNP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	686	Management of Common Health Problems in Geriatrics	Provides theoretical foundation for advanced geriatric healthcare focusing on the epidemiology of aging and the effects of senescence on cognition and organ systems. Emphasizes the core concepts of aging, including health management and end of life care. Uses theory building approaches for applying health management process and outcomes to clinical practice and policy.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Nursing and Healthcare Innovation PhD or DNP student. Pre/Co-requisite: DNP 682 or NUR 682. credit is allowed for only DNP or NUR 686
DNP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DSC	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H & G	
DSC	101	Design Awareness	Surveys cultural, global, and historical context for the design professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & G	
DSC	180	Athena Design Success	Facilitates academic success for first-year College of Design students in the Athena program through developmental, educational, and professional experiences.	N	DIS	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		
DSC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
DSC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	236	Introduction to Computer Modeling	Computers in design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	CS	Pre-requisites: Must be either Pre-Industrial Design or Industrial Design BSD student
DSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
DSC	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
DSC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-7		
DSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
DSC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	501	Qualitative Research in Design	Theory and application of qualitative research. Emphasizes using ethnography to identify and specify innovative concepts and strategies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		

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DSC	520	Contemporary Design Issues	Projected applications in design production, planning, and decision-making processes.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	525	Design Methodologies	Practical exercises and studies in problem-solving strategies; problem definition and supporting theory for the designer. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	526	Visiting Designers	Series of workshops (three per semester) in which students work closely with professionals and scholars in design and related disciplines.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	527	Contemporary Design Theory	Aesthetic, political, economic, and social theories that have shaped modern design; theory as the basis for design philosophies.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	529	Design Criticism	Applies critical methods to design as material culture and human expression; evaluates achievement versus intention.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	544	Human Factors Systems and Documentation	Advanced topics associated with theory and methods of human factors in design. Individual projects stressing problem organization, evaluation, and documentation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	558	Daylighting	Daylighting as a design determinant; concepts, techniques, methodology, experiments, and case studies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	561	Methods in Visual Communication I	Introduces methodology in visual communication.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	562	Methods in Visual Communication II	Advanced theories and methodologies in visual communication. Emphasizes visual search as the synthesis of theory and practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	563	Thesis Document Design	Emphasizes the construction of the final thesis document as a visual communication object and/or medium.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	581	Internship in Teaching Design	Develop assignments, conduct critiques, structure dialogue, make presentations, and assist in the instruction of studio and lecture courses.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD or Design (Inter Design) MSD student
DSC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DSC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
EA	555	Sch-Plant-Plan-Main		Y	LEC	Y	CNV	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		
EAC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EAC	320	Child Guidance and Classroom Management	Understanding of the factors and elements necessary to create a positive and productive learning environment for the pre-K-3 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
EAC	330	Emerging Language and Literacy	Understanding the development of language from birth to age 8, and appropriate strategies for promoting growth in speaking, listening, reading, and writing in the pre-K-3 learning environment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	335	Assessment Birth to Age 8	Examines assessments appropriate to pre-K-3 grade instruction to align curriculum with learner needs. Focuses on test design, interpretation, lesson design, and aspects related to multiple classroom and formal assessments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
EAC	340	Literacy Interventions in K-3 Classrooms	Explores the evaluation of children's literacy development. Includes linking individual needs with literacy instruction, diagnosing reading difficulties, and tutoring a K-3 child to plan appropriate instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	345	Math Methods for Early Childhood Classrooms	Research-based and developmentally appropriate practices and methodologies for teaching and assessing mathematics to young children in a grade pre-K-3 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	355	Accommodating Instruction in Early Childhood Education	Identifying and accommodating learners with special needs, including classroom adaptations in instruction and assessment, for pre-K-3 classroom environments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	426	Professional Knowledge in Early Childhood Education	Explores issues related to professional knowledge, including disciplinary instruction and the impact of the community on students' learning.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EAC	440	Integrated Curriculum and Assessment: Science for Early Childhood Educators	Developmentally appropriate practices and methodologies for teaching and assessing science education with young children in a pre-K to third grade classroom. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	450	Integrated Curriculum and Assessment: Social Studies and Creative Arts	Techniques and resources for a balanced and integrated social studies and creative expression curriculum for pre-K to third grade classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	460	Child, Family, Community, Culture of the Early Childhood Classroom	Examines theoretical approaches to teaching young children. Includes survey of social, historical, political, community, and educational issues.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	470	Field Experience Pre-K	Field practicum for early childhood education. Requires a supervised placement in a pre-K/preschool classroom. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
EAC	472	Field Experience K-3	Field practicum for early childhood education. Requires a supervised placement in a K-3 classroom. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
EAC	480	Student Teaching Pre-K	Supervised student teaching experience in early childhood. Requires an assigned teaching placement in a preschool classroom setting. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	6.		
EAC	482	Student Teaching K-3	Supervised student teaching experience in early childhood. Requires an assigned teaching placement in a kindergarten to third grade classroom. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	6.		
EAC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	501	Interprofessional and Family Collaboration	Explores trends and practices, educationally appropriate instruction and resource materials, methods and strategies in early childhood education. Discusses history of the field, theory, contemporary issues and controversies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only

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ECD	521	Primary/Elementary Communication Arts in Bilingual Education	Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	522	Developmental Social Experiences in Early Childhood Education	Materials, techniques, aesthetic expression, creative activities, and values in the integrated curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
ECD	544	Play-Based Education in Inclusive Settings	Theories of play and the educational implications of each in an early childhood/elementary inclusive curriculum for best teaching practices. Practical applications for the primary grades of the elementary and preschool setting in inclusive settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	548	Childhood Studies and Social and Political Environments	Examines the emergence of interdisciplinary/transdisciplinary childhood studies from historical, social, and political contexts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	555	Contemporary Practices in Early Childhood	Trends and practices, instructional and resource materials, and methods and techniques in early childhood education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	570	Pre-K Internship/Student Teaching	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2.		Pre-requisites: Graduate students only
ECD	571	Pre-K Internship/Student Teaching	Field experience consisting of 60 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	4.		Pre-requisites: Graduate students only
ECD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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ECD	601	Theories and Issues in Early Childhood Education	Current theories and issues in early childhood education. Presents issues of early childhood best practices, policy, theory, research, and evaluation that are of significance to the early childhood professional. Highlights building on the child development conceptual framework as related to theory and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
ECD	733	Social and Emotional Development	Inquiry into the social and emotional development dynamics in children, such as peer relationships, self-concept, and parenting processes, with implications for teachers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	503	Introduction to Research and Evaluation in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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ECD	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
ECD	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	543	Issues in the Development of Infants and Young Children	Factors and conditions that affect early development. Strategies for promoting attachment, self-regulation, resilience, adaptation, and coping.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	544-W	Assessment and Evaluation of Infants and Young Children	Developmental assessment and related program planning for infants and young children. Emphasizes authentic, individualized, family-centered and culturally competent approaches.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	545	Curricula, Methods, Technology, and Adaptations for Infants and Young Children	Developmentally appropriate practices. Serving young children with diverse abilities in natural, inclusive settings. Emphasizes cognitive development, social competence.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	546	Communication, Language, and Early Literacy	Early communication development and language acquisition. Facilitating communicative competence and early literacy for infants and young children's diverse abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	547	Supporting Motor Development	Early sensorimotor development. Strategies to facilitate the acquisition of motor skills and address the needs of children with motor disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	555-W	Modern Practices in Early Childhood Education	Trends and practices, instructional and resource materials, and methods and techniques in early childhood education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	570	Pre-K Internship/Student Teaching	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2.		
ECD	570	Pre-K Internship/Student Teaching	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2.		
ECD	571	Pre-K Internship/Student Teaching	Field experience consisting of 60 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	4.		
ECD	571	Pre-K Internship/Student Teaching	Field experience consisting of 60 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	4.		
ECD	578	Student Teaching in Early Childhood (K-3)	Supervised teaching in the K-3 classroom setting. Synthesized experience in curriculum, instruction, classroom organization, and guidance of young children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate students only
ECD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
ECD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
ECD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	211	The Developing Child: Theory into Practice, Prenatal-Age 8	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	211	The Developing Child: Theory into Practice, Prenatal-Age 8	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	211	The Developing Child: Theory into Practice, Prenatal-Age 8	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	300	Principles of Interprofessional Collaboration	Focuses on the dispositions, experiences, knowledge, and skills necessary for interprofessional collaboration designed for young children and their families.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	301	Technology, Media, and Community-Based Education for Young Children	Examines technology, media, toys, and community-based educational opportunities to support the education of three- to eight-year-old children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	302	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	315	Classroom Organization and Guidance in the Early Years	Develops understanding and application of classroom organization and management principles, strategies, and procedures.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2-3		Pre-requisites: Initial Teacher Certification Program Admission
ECD	323	Building Home, School, and Community Partnerships	Knowledge and skills to facilitate positive and continuous family-school partnerships; family background, social context, family involvement, and current research on family-school interaction and academic success.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	323	Building Home, School, and Community Partnerships	Knowledge and skills to facilitate positive and continuous family-school partnerships; family background, social context, family involvement, and current research on family-school interaction and academic success.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	324	Social Studies and Creative Arts for Primary Level Children	Social studies and creative arts standards, curriculum, and instructional and assessment strategies for all primary-level children; developmentally appropriate methods and strategies for effective instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be co-enrolled in BLE 321, EDP 323, EED 397 and RDG 322 AND have completed the following with a C or better: TEL311, 313, 314, 315 and BLE312 and TEL396 completed with a Y AND be a Prof/Early Child Bk 1 student
ECD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	395	Field Experience: Community-Based Early Childhood Education Setting	Observation in classrooms and individual and small group instruction. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
ECD	395	Field Experience: Community-Based Early Childhood Education Setting	Observation in classrooms and individual and small group instruction. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
ECD	400	Foundations of Early Child Education: Birth-Age 8	Foundational basis of the early childhood field, including historical roots, current practices, professional behavior and ethical conduct, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECD	401	Integrated Curriculum and Assessment: Social Studies and Creative Arts	Presents materials, techniques, and resources for a balanced program of social studies and aesthetic expression appropriate for children in preschool through 3rd grade, with emphasis on the integrated curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Fulton Education students and a Cumulative GPA must be greater than or equal to 2.50 AND a grade of C or better in BLE 408 AND co-enrolled in ECD404, 420, 480 and 496.
ECD	402	Integrated Curriculum and Assessment: Math and Science	Emphasizes developmentally appropriate educational strategies and instructional techniques in teaching mathematics and science to children in preschool through 3rd grade, within an integrated curriculum approach.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of at least 2.5 AND co-enrolled in ECD300, ECD496 and SPE416 AND a grade of C or better in ECD400, 401, 403 and complete at least 1 unit of ECD496.
ECD	403	Educational Environments: Preschool/Kindergarten/Primary Grades	Focuses on interactions between young learners and the physical and social environments encountered in preschool, kindergarten, and primary settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of at least 2.5 AND be co-enrolled in ECD 400, ECD 401 and ECD 496
ECD	404	Teaching Reading and Language Arts in Early Childhood	Development of oral and written language from birth to age 8. Describes developmentally appropriate educational strategies for promoting growth in speaking, listening, reading, and writing.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of at least 2.5 AND completed with a C or better in BLE 408, ECD 406, ECD 476 and ECD 477 AND co-enrolled in BLE 408, ECD 315, ECD 405 and ECD 496
ECD	405	Practicum in Teaching Reading and Language Arts in Early Childhood	Supervised experience teaching reading and language arts at the preschool, kindergarten, and primary-grade (1-3) levels. Developmentally appropriate strategies to promote young children's speaking, listening, reading, and writing abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of 2.5 or greater AND a grade of C or better in ECD 300 or be co-enrolled.
ECD	406	Assessment: Birth-Age 8	Assessment and evaluation principles, techniques, and issues related to children birth through eight years. Test construction and interpretation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Undergraduate Fulton Education student ; ECD 300, 301, 315, 400 and 496 with a C or better or be currently enrolled; Co-requisites: BLE 408, ECD 476 and ECD 477
ECD	414	Interprofessional Practicum	Investigates services and agencies available in the local community to parents of children with special needs. Practical experiences with an intermittent seminar format. Dispositions, knowledge, experiences, and skills necessary for interprofessional collaboration across multiple agencies and programs.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	414-W	Early Childhood Curriculum and Organization	Historical and legal influences on early childhood education; advanced preparation for curriculum designs and developmentally appropriate practices; school organization topics.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be co-enrolled in EED 411, EED 412, EED 496 and RDG 413 AND a grade of C or better in the following: BLE321, RDG322, EDP323 and 324 and completion of EED397 with a grade of Y AND must be a student in Early Childhood Blocks 2 and 3
ECD	420	Integrated Curriculum and Assessment: Science	Developmentally appropriate educational strategies and instructional techniques in teaching science to children birth-3rd grade.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student AND have completed with a C or better BLE408, ECD406, 476 & 477 AND be co-enrolled in ECD401, 404, 480 & 496
ECD	470	Early Childhood Education Student Teaching Seminar	Reflective, experienced-based integration of theory and practice; professional development for early childhood teachers.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	476	Integrated Curriculum: Birth-Pre K	Introduction to teaching children birth through pre-K, including classroom organization, curriculum, and professional relationships.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student AND have completed with a C or better ECD300, 301, 315, 400 & 496 AND be co-enrolled in BLE408, ECD406 and ECD477
ECD	477	Student Teaching: Pre-K or Infant/Toddler	Supervised practicum in a pre-K or infant/toddler, school-or center-based program. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		Pre-requisites: Must be a Fulton Education student and have completed with a C or better: ECD300, 301, 315, 400 & 496 AND be co-enrolled in BLE408, ECD406 & ECD476
ECD	478	Student Teaching in Early Childhood (K-3)	Supervised teaching in the K-3 classroom setting. Synthesized experience in curriculum, instruction, classroom organization, and guidance of young children. May be repeated for credit. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Pre-requisites: Must be co-enrolled in ECD 470, and ECD 481
ECD	479	Capstone Seminar in Early Childhood Education	Reflective, experienced-based integration of theory and practice; professional development for early childhood teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Early Childhd Block 3; Must have completed EED 411, EED 412, ECD 414 and RDG 413 with a C or better or be currently enrolled; Must have completed EED 496 with a Y grade or be currently enrolled; ; Must be co-enrolled in ECT 477 & ECT 478
ECD	480	Integrated Curriculum and Assessment: Mathematics	Developmentally appropriate educational strategies and instructional techniques in teaching mathematics to children birth-3rd grade.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student and have completed with a C or better: BLE408, ECD406, 476 & 477 AND be co-enrolled in ECD401, 404, 420, 496
ECD	481	Issues and Practices in Early Childhood Education	Stakeholder analysis of teacher education experiences applicable to preparation that leads to increased educational opportunity and success for diverse children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
ECD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	493	Honors Thesis	Honors Thesis	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
ECD	493	Honors Thesis	Honors Thesis	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student

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ECD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	496	Field Experience	Applies course content in diverse birth?3rd grade settings through observation, planning child-sensitive curriculum, implementing learning strategies, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisites: Initial Teacher Certification Program Admission
ECD	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
ECD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
ECD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECE	330	electrical Networks		N	LEC	N	CNV	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	4.		
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
ECN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-3		
ECN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
ECN	201	Economic Issues and Analysis	Introduces tools used in basic economic analyses, emphasizing application to contemporary national and international issues. Not open to students with credit in ECN 211 or 212	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisite: Not open to students with credit in ECN 211 or ECN 212.
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	
ECN	213	Honors Macroeconomics	Introduces modern macroeconomic analysis. Theory of national income, unemployment, inflation, and economic growth and its application to economic policy. Not open to students with credit in ECN 313.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must be an Honors student; Co- or Pre-requisite: One of the following courses: MAT 210, MAT 211, MAT 270 or MAT 271.
ECN	214	Honors Microeconomics	Introduces modern microeconomic analysis. Theories of consumer behavior, production, and cost. Output and price determination in a variety of market settings. Not open to students with credit in ECN 314.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must be an Honors student; Must have completed one of the following courses with a grade of C or greater or be currently enrolled: MAT 210, MAT 211, MAT 270 or MAT 271
ECN	221	Business Statistics	Methods of statistical description. Applies probability theory and statistical inference in business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: MAT 211 or MAT 271 with a C or better or currently enrolled
ECN	231	Honors Business Statistics	Applies statistical methods used in business and economic modeling and research. Emphasizes regression analysis and modeling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: Must be an Honors student; Must have completed MAT 211 or MAT 271 with a grade of C or greater or be currently enrolled.
ECN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: Must be an Honors Student; Must have completed one of the following courses with a grade of C or greater or co-enrolling: MAT 210, MAT 211, MAT 270, MAT 271 or MAT 272
ECN	303	Honors Managerial Economics	Develops a basic platform for managerial decision making. Applies basic economic concepts and models to actual business practices.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Barrett Honors student; ECN 214 or 312/314 with C or better
ECN	306	Survey of International Economics	Surveys international trade issues, commercial policy, trade theory, customs unions, and international monetary topics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled. May not enroll if completed IBS 306 with a D or greater
ECN	313	Intermediate Macroeconomic Theory	Determinants of aggregate levels of employment, output, and income of an economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.

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ECN	314	Intermediate Microeconomic Theory	Role of the price system in organizing economic activity under varying degrees of competition.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	315	Money & Banking	Functions of money. Monetary systems, credit functions, banking practices, and central banking policy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	331	Economics of the European Economic Union	Examines broad economic policies seeking to influence individuals' decisions, the history of European economic development and policies, as well as institutions and social systems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	360	Economic Development	Theories of economic growth and development. Role of capital formation, technological innovation, population, and resource development in economic growth.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	365	Economics of Russia and Eastern Europe	Origins and analysis of contemporary institutions. Comparative development and differentiation in the 20th century.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	382	Managerial Economics	Applies economic analysis to managerial decision making. Market analysis in the context of the socio-legal environment. Does not satisfy Economics major requirements.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Not open to Economics or business majors. Must have minimum 2.0 ASU cumulative GPA and minimum of 56 total earned hours, or be a Non-degree seeking student, or any Graduate degree seeking student
ECN	384	Economics of Social Behavior	Applies economic analysis to contemporary behavior; discrimination, work versus leisure, crime, medical care, macroeconomic policies. Does not satisfy Economics major requirements.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must have minimum cumulative GPA of 2.00; Must have minimum of 56 total earned hours or be a non-degree seeking student OR any Graduate degree seeking student
ECN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	404	History of Economic Thought	Development of economic doctrines, theories of mercantilism, physiocracy, classicism, neoclassicism, Marxism, and contemporary economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 214 or ECN 314 with a grade of C or greater or be currently enrolled; Co- or pre-requisite: ECN 213 or ECN 313
ECN	410	Applied Business Forecasting	Applies forecasting techniques in business and institutional environments. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: ECN 221 or STP 226, AND ECN 214 or ECN 312/314 with a grade of C or greater.
ECN	413	Advanced Honors Macroeconomics	Develops and uses various macroeconomic models to evaluate important economic policies. Emphasizes honing students' policy evaluation skills.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Honors student; ECN 213 or 313, AND ECN 214 or 312/314 with a grade of C or greater.
ECN	414	Advanced Honors Microeconomics	Develops and uses various microeconomic models to evaluate important economic issues. Emphasizes the economics of uncertainty and information.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Honors student; ECN 213 or 313, AND ECN 214 or 312/314 with a grade of C or greater.
ECN	416	Game Theory and Economic Behavior	Introduces game theory and its application to various economic situations under conditions of complete and incomplete information.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 314 with a grade of C or greater or be currently enrolled; Co- or pre-requisite: ECN 213 or ECN 313
ECN	421	Earnings and Employment	Origins of labor movement, analysis of labor unions, labor markets, collective bargaining, and current policy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	425	Introduction to Econometrics	Elements of regression analysis: estimation, hypothesis tests, prediction. Emphasizes use of econometric results in assessment of economic theories.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314, AND ECN 221, ECN 231 or STP 226 with a grade of C or greater
ECN	436	International Trade Theory	Comparative-advantage doctrine, including practices under varying commercial policy approaches. Economic impact of international disequilibrium.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	438	International Monetary Economics	History, theory, and policy of international monetary economics. Balance of payments and exchange rates. International financial markets, including Eurocurrency markets.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-reqs: ECN 213 or ECN 313 with a grade of C or greater or be currently enrolled
ECN	441	Public Economics	Public goods, externalities, voting models, public expenditures, taxation, and budget formation with emphasis on the federal government.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	450	Law and Economics	Economics of the legal system, including analysis of property, contracts, torts, commercial law, and other topics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	453	Industrial Organization and Competition Policy	Development of public policies toward business. Antitrust activity. Economic effects of government policies.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	470	Mathematical Economics	Integrates economic analysis and mathematical methods into a comprehensive body of knowledge within contemporary economic theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	475	Capstone in Economics	Capstone course integrating several areas of economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	L	Pre-reqs: ECN 213 or 313 AND ECN 214 or ECN 312/314 with C or greater; senior standing.
ECN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Min 3.0 ASU cum GPA; ECN 213 or 313, and ECN 214 or 312/314 with a grade of C or greater.
ECN	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6		Pre-requisites: Honors student; W. P. Carey BS or BA student or non degree seeking W.P. Carey student; ECN 213 or 313 AND ECN 214 or 314 with a grade of C or better.
ECN	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6	L	Pre-requisites: Honors student; W. P. Carey BS or BA student or non degree seeking W.P. Carey student; ECN 213 or 313 AND ECN 214 or 314 with a grade of C or better.
ECN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313

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ECN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-7		Pre-requisites: Must have completed ECN 313and ECN 314 with a grade of C or greater or be currently enrolled
ECN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-3		
ECN	501	Statistics for Managers	Fundamentals of statistical analysis to aid management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		
ECN	502	Managerial Economics	Applies microeconomic analysis to managerial decision making in areas of demand, production, cost, and pricing. Evaluates competitive strategies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: MBA degree program student
ECN	503	Global Business Environment	Macroeconomic analysis of issues related to economic growth, inflation, interest rates behavior, unemployment, exchange rate determination, and global competitiveness.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a MBA degree program student
ECN	504	History of Economic Thought	Historical development of economic theory. Emphasizes the development of economic analysis from preclassical economics through Keynes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	509	Macroeconomic Theory and Applications	Theory of income, output, employment, and price level. Influence on business and economic environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	510	Microeconomic Theory and Applications	Applies economic theory to production, consumer demand, exchange, and pricing in a market economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	525	Applied Regression Models	Simple linear regression, multiple regression, indicator variables, and logistic regression. Emphasizes business and economic applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:MAT 210 with a grade of D or better or currently enrolled
ECN	527	Categorical Data Analysis	Discrete data analysis in business research. Multidimensional contingency tables and other discrete models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:ECN 525 completed with a D or better, or currently enrolled
ECN	530	Experimental Design	Experimental designs used in business research. Balanced and unbalanced factorial designs, repeated measures designs, and multivariate analysis of variance.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Graduate Students only (degree and non-degree seeking)
ECN	535	Multivariate Methods	Advanced statistical methods used in business research. Multivariate analysis of association and interdependence.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:ECN 525 completed with a D or better, or currently enrolled
ECN	540	Forecasting	Foundation of statistical forecasts and forecast intervals; applies classical and computer-assisted forecasting methods to business forecasting problems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites:QBA 502, MAT 210 completed with a D or better, or currently enrolled
ECN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey Graduste degree seeking student
ECN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey Graduste degree seeking student
ECN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 712 and ECN 714 with a grade greater than a C
ECN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-12		

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ECN	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	711	Macroeconomic Analysis I	Current theories of output, employment, inflation, and asset prices as well as major aggregates. Introduces dynamic optimization techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	712	Microeconomic Analysis I	Theory of production, consumer demand, resource use, and pricing in a market economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	713	Macroeconomic Analysis II	Focuses on growth theory, dynamic general equilibrium models, monetary theory, open-economy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	714	Microeconomic Analysis II	General equilibrium, welfare economics, production, and capital theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	715	Advanced Macroeconomic Analysis	Focuses on current research areas in macroeconomics and monetary theory with emphasis on methods in economic dynamics and numerical techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 711 with a grade of C or greater; Must have completed ECN 713 with a grade greater than a C
ECN	716	Advanced Economic Theory I	Economic behavior under uncertainty; markets and contracts under asymmetric information; the theory of games with incomplete information and applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 714 with a grade of C or greater; Must have completed ECN 712 with a grade greater than a C
ECN	717	International Macroeconomics	Intertemporal approach to the current account, international business cycles, international risksharing and home bias, models of exchange rate determination, balance of payment crises, sovereign debt and default.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		
ECN	721	Labor Economics	Develops basic theoretical models for analyzing labor market issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	722	The Aggregate Labor Market	Extensions/criticisms of labor market theories. Applications to a variety of policy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	725	Econometrics I	Problems in the formulation of econometric models. Emphasizes estimation, hypothesis testing, and forecast of general linear models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	726	Econometrics II	Estimation and inference of qualitative and limited dependent variable models as well as general multiple equation models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 712 and ECN 714 with a grade greater than a C
ECN	727	Quantitative Methods in Economics	Generalized method of moment estimation, estimation with censored and truncated samples, nonlinear models, panel-data models, econometrics of nonstationarities.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater;
ECN	736	International Trade Theory	Theories of comparative advantage and their empirical verification. Theory and political economy of commercial policy. Resource transfers and the role of the multinational corporation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	738	International Finance	Foreign exchange market, balance of payments, and international financial institutions and arrangements; theory and applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	741	Public Economics	Economics of collective action, public spending, taxation, and politics. Impact of central governmental activity on resource allocation and income distribution.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: W.P. Carey Graduate degree-seeking students only; Must have completed ECN 712 with a grade of B or greater; Co-requisite: ECN 714
ECN	753	Industrial Organization	Analyzes structure, conduct, and performance in industrial markets; the economics of organizations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	760	Economics of Growth and Development	Economic problems, issues, and policy decisions facing the developing nations of the world.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 711 and ECN 712 with a grade greater than a C; Co-requisites: ECN 713 and ECN 714
ECN	770	Mathematics for Economists	Surveys mathematical ideas encountered in economics and econometrics: nonlinear programming, the Kuhn-Tucker theorem, concave programming, optimization over time.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	784	Internship		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		

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ECN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-15		
ECN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-15		
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	SB	
ECT	311	Foundations/Programs/Policies/Practices	Foundations of early childhood education, including program, policies, practices, and early intervention; history, legislation, issues and trends, models, ethics, goals, and benefits of early childhood education and intervention.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 312, ECT 313, ECT 314, ECT 315 and ECT 396
ECT	313	Technology in Early Childhood Education	Evaluates technology and technological learning tools for early childhood classrooms; integrates technology and its tools into students' learning. Lecture, discussion, active participation. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 311, ECT 312, ECT 314, ECT 315 and ECT 396
ECT	314	Developmental Discipline/Classroom Organization	Theories and strategies to guide children's development toward becoming self governing; typical and atypical behaviors; implementing age-appropriate classroom management techniques that foster individual, social, and academic competence.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 311, ECT 312, ECT 313, ECT 315 and ECT 396
ECT	315	Teacher Research: Studying Children in Context	Introduces designing, conducting, interpreting, and reporting teacher research; methods of research and fieldwork with children to improve teaching practices and child outcomes.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 311, ECT 312, ECT 313, ECT 314 and ECT 396
ECT	321	Administration/Evaluation of EC Programs	Administration and evaluation of early childhood programs. Emphasizes planning and evaluation; regulations; health, nutrition, and safety; operations, budgeting, and supervision of personnel.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 2 ECT, BLE 312, ECT 322, ECT 323, ECT 324 and ECT 397
ECT	322	Emergent Language/Lit I Development/Instruction/ Assessment	Language and literacy development; language acquisition; methods of facilitating oral language in relation to emergent reading and writing; methods of facilitating early literacy development; clinical observation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 2 Early Childhood , BLE 312, ECT 321, ECT 323, ECT 324 and ECT 397
ECT	324	Social Studies / Creative Arts in Early Years	Social studies and creative arts standards, curriculum, and instructional and assessment strategies for all young children; developmentally appropriate methods and strategies for effective learning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 2 Early Childhood , BLE 312, ECT 321, ECT 322, ECT 323 and ECT 397
ECT	397	Field Experience II	Instruction, observation, and management of small groups and the whole class. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Block 2 Early Childhood , BLE 312, ECT 321, ECT 322, ECT 323, ECT 324
ECT	411	Science as Inquiry: Development, Instruction, and Assessment	Content, instructional strategies, and assessment in early childhood science; age-appropriate standards; active investigation of science concepts; inquiry and collaborative learning; connections between science and other subject areas. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 412, ECT 413, ECT 414 and ECT 496
ECT	412	Early Math:Development/Instruction/Assessment	Content, instructional strategies, and assessment in early childhood mathematics; age-appropriate standards; active investigation of mathematics concepts and ideas; connections between mathematics and other subject areas.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 413, ECT 414 and ECT 496
ECT	413	Language/Literacy II Development/Instruction/Assessment	Extends ECT 322; language and literacy development; language acquisition; methods of facilitating oral language in relation to emergent reading and writing; methods of facilitating early literacy development; clinical observation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 412, ECT 414 and ECT 496
ECT	414	Social/Educational Policies Young Children/Families	Social policies at the national and state levels; values and assumptions of policies; political factors shaping policy and implementation; links between policy, educational practice, schools, and family functioning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 412, ECT 413 and ECT 496
ECT	477	Student Teaching: Ages 0-4	Student teaching in preschool classrooms serving children from birth to age 4; integrates all previous course work. Eight-week placement required. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	5.		Co-requisites: Early Childhood students; ECT 478 and ECT 479 or PDS (Professional Development School) student as appropriate

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECT	478	Student Teaching: K-3	Student teaching in kindergarten through grade 3 classrooms; integrates all previous course work. Eight-week placement required. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	5.		Co-requisites: Early Childhood students; ECT 477 and ECT 479 or PDS (Professional Development School) student as appropriate
ECT	479	Captstone Seminar in ECT	Reflective, experience-based integration of theory and practice; professional development for preschool through grade 3 teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 477 and ECT 478 or PDS (Professional Development School) student as appropriate
ECT	496	Field Experience III	Instruction and management of small groups and substantial work with the whole class. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 412, ECT 413 and ECT 414
ECT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
EDA	501	Competency/Performance in Educational Administration	Nature of educational administration and the concept of competency as it applies to educational administration.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	511	School Law	Constitutional, statutory, and case law that relates to all school personnel, pupils, the school district, and other governmental units. Contracts, dismissals, tenure, retirement, pupil injuries, liability of personnel and district, school district boundary changes, and bonding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	515	Administration and Technology in Learning	Provides students with hands-on exposure to technology that assists with school improvement initiatives.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	525	Human Relations and Societal Factors in Education	Interrelations between problems of educational administration and interdisciplinary social sciences. Communications skills, morale, authority, and perception. Concepts from political science, economics, and social-psychology useful to the administrator.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	534	Concepts of Learner-Centered Leadership	Principles, theories, attributes, and skills related to learner-centered leadership.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	544	Public School Finance	Measures of ability, efforts, and educational need; capital outlay funding; tax revenues; federal, state, and local financing alternatives; major issues and trends in the financing of public education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	548	School, Family, and Community Connections	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	555	Educational Facility Planning	School building needs, educational planning for facilities, responsibilities of architects, duties of contractors, and equipping and furnishing of school buildings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	571	School Business Management	Purchasing, budgeting, accounting, payroll management, auditing, financial reporting, insurance, and administration of nonteaching personnel and services.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	573	Human Resources Administration	Organization for human resources services; development of policy to govern the human resources function and its related processes.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	576	The School Principalship	Problem and lab approaches used to provide application of administrative activities of elementary and secondary schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		

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EDA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
EDA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	611	Educational Policy and the Law	Emphasizes policy analysis and application of federal and state law to policy evaluation and development in public schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	624	Organizational Development and Management of Schools	Current organizational patterns for public schools. Emphasizes the organizations, human, and social dimensions on organizations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	645	Leadership Development for Education Leaders	Principles, theories, attributes, and skills related to individual leadership development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	675	Politics of Education	Uses social science theory and research to consider the political context of educational policy making.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	676	The School Superintendency	Critical examination of the school superintendency and the primary functions of this educational position. Includes the duties, responsibilities, activities, and problems of the school superintendent. Examines the unique leadership role of the school superintendent.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	677	Foundations of Educational Reform Movements	Historical and contemporary survey of curricular reform movements in the United States with emphasis on equity and social justice issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	679	Administration of Special Programs in Education	For personnel administering special educational services; responsibilities of superintendents, principals, supervisors, and directors for special education, student personnel, audiovisual, library science, and others.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	685	Education in Global Contexts	Global perspectives on education in contemporary society with emphasis on social, political, and economic factors that affect access and equity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-6		
EDA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		

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EDA	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	711	Administrative Leadership	Emphasizes research in leadership; application of research findings to administrative and supervisory functions in educational endeavors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	722	Administration of Instructional Improvement	Recent research relating to administrative and supervisory responsibilities for the improvement of the educational program. Effective processes by administrators, supervisors, consultants, and coordinators.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	723	Diversity in Education for School Leaders	Discusses current issues and leadership strategies for meeting the needs of diverse student populations combating inequity and inequality in education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EDA	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EDA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-3		
EDA	501	Competency/Performance in Educational Administration	Nature of educational administration and the concept of competency as it applies to educational administration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	511	School Law	Constitutional, statutory, and case law that relates to all school personnel, pupils, the school district, and other governmental units. Contracts, dismissals, tenure, retirement, pupil injuries, liability of personnel and district, school district boundary changes, and bonding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	511-W	School Law	Interpreting state and federal law for application in school setting. Includes statutory authority for administrators, liability, and student constitutional rights.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	512	Critical Issues in Educational Leadership	Legal and ethical concepts of educational practices in federal and state laws affecting charter and independent schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	514	Leadership in Curriculum and Assessment	Curriculum and assessment responsibilities of school administrators.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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EDA	521	Evaluation of Teaching Performance	In-depth analysis of legal basis of teacher appraisal, teacher competency, measurement of teacher performance, and application of performance appraisal systems.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	524	Theory and Application of Educational Administration	History and development of public school administration in the United States; current organizational patterns for public education at local, intermediate, state, and national levels; current theoretical positions in educational administration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	544	Public School Finance	Measures of ability, efforts, and educational need; capital outlay funding; tax revenues; federal, state, and local financing alternatives; major issues and trends in the financing of public education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	547	Marketing and Community Relations for Educational Entrepreneurs	Strategic marketing and community relations concepts and their application, formulation, and execution in charter and independent schools and related services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	548	School, Family, and Community Connections	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	548-W	Community Relations in Education	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	555	Educational Facility Planning	School building needs, educational planning for facilities, responsibilities of architects, duties of contractors, and equipping and furnishing of school buildings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	556	Management and Human Resources for Educational Entrepreneurs	Entrepreneurial leadership and organization theory applied to managing human resources in competitive educational organizations by increasing the effectiveness of decision making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	557	Facilities Planning for Educational Entrepreneurs	Legal and practical implications involved in designing or refurbishing charter school facilities to maximize space to facilitate student development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	558	Financial Planning and Reporting for Educational Entrepreneurs	Financial planning and reporting concepts, requirements, and procedures for charter and independent schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	571	School Business Management	Purchasing, budgeting, accounting, payroll management, auditing, financial reporting, insurance, and administration of nonteaching personnel and services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	572	School-Site Business and Human Resources	Effective ethical models and strategies for organizing and administering the conduct of school site human resources administration and business affairs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	573-W	School Personnel Administration	Organization for personnel services; development of policy to govern selection, orientation, placement, remuneration, transfers, separations, and development of morale among instructional and noninstructional personnel.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	576	The School Principalship	Problem and lab approaches used to provide application of administrative activities of elementary and secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	576-W	Critical Issues in Educational Leadership	Explores current critical issues in school leadership, including student support and relationships with governmental agencies and the community.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDA	634	Instructional Leadership	Theory, practice, and issues in school change and reform with a focus on leading change efforts at the school site.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	675	Politics of Education	Uses social science theory and research to consider the political context of educational policy making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	679	Administration of Special Programs in Education	For personnel administering special educational services; responsibilities of superintendents, principals, supervisors, and directors for special education, student personnel, audiovisual, library science, and others.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	701	Assessment Policies, Issues, and Practices	Critical thinking about assessment data and other information sources to make inferences, judgments, and predictions about reality in schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	704	Leading Change in Educational Organizations	Develops understanding of dynamic and systemic nature of organizations, with emphasis on leadership for building organizational capacity and learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	772	School District Human Resources and Business Management	Effective ethical models and strategies for organizing and administering the conduct of school site human resources administration and business affairs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	773	The Superintendency and School District Leadership Roles and Responsibilities	Examines management roles and responsibilities of public school district superintendents and other leaders in identifying and addressing critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDB	101	Education Block I		N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	7.		
EDB	102	Education Block I		N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	7.		
EDB	103	Education Block I		N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	7.		
EDB	104	Education Block I		N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	7.		
EDB	201	Education Block li		N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	7.		
EDB	202	Education Block li		N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	7.		
EDB	203	Education Block li		N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	7.		
EDB	204	Education Block li		N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	7.		
EDB	301	Elementary Education Program Courses	Some elementary education methodology courses use the prefix EDB for purposes of registration. These courses are reserved for students admitted to professional programs. EDB courses are converted to permanent ASU education courses (with other prefixes) following the drop-add period, as determined by the registrar's calendar.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	4-18		
EDB	302	Elementary Education Program Courses	Some elementary education methodology courses use the prefix EDB for purposes of registration. These courses are reserved for students admitted to professional programs. EDB courses are converted to permanent ASU education courses (with other prefixes) following the drop-add period, as determined by the registrar's calendar.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	4-18		Pre-requisites: Must be a Fulton Education student; Minimum cumulative GPA of 2.50; EED 433, RDG 494 and SPE 416 completed with a C or greater or currently enrolled; EED 496 with a Y or currently enrolled
EDB	303	Elementary Education Program Courses	Some elementary education methodology courses use the prefix EDB for purposes of registration. These courses are reserved for students admitted to professional programs. EDB courses are converted to permanent ASU education courses (with other prefixes) following the drop-add period, as determined by the registrar's calendar.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	4-18		
EDB	304	Elementary Education Program Courses	Some elementary education methodology courses use the prefix EDB for purposes of registration. These courses are reserved for students admitted to professional programs. EDB courses are converted to permanent ASU education courses (with other prefixes) following the drop-add period, as determined by the registrar's calendar.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	4-18		
EDC	510	Introduction to Gifted Education	Introduces gifted education and classroom applications in pre-K-12. Focuses on identification of giftedness and aligning instruction with specific needs and abilities of diverse gifted learners. Credit is allowed for only EDC 510 or 410.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	515	Social and Emotional Development and the Gifted Learner	Overview on matching instruction with the specific needs and abilities of diverse gifted learners with a focus on social and emotional needs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	542	Outdoor Education	Interdisciplinary field-oriented course designed to provide educators with basic knowledge of outdoor education and its relationship to the total school curriculum. Includes assigned fieldwork.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Students who have credit in EDC 442, may not enroll in EDC 542
EDC	560	Principles of Instructional Technology	Examines effective practices related to instructional technologies, including classroom delivery, student engagement, and evaluation of resources.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	562	Planning and Designing Curriculum with Media	Planning and design of curriculum and effective learning experiences supported by technology to maximize student learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	565	Research-Based Phonics for the K-8 Classroom	Current research in phonics instruction, including systematic and analytic approaches, and their application to classroom practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	568	Developing and Using Video in Instruction	Techniques for developing and using video for instruction; methods and materials for teaching video production in schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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EDC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
EDC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EDC	320	Integrated Learning Experience I: Learning Climate	Explores factors contributing to a positive and productive classroom learning environment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	325	Integrated Learning Experience II: Instructional Design and Implementation	Design and implementation of developmentally appropriate instruction, and the alignment of instruction with district and state academic standards.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisite: must be in the ELEM EDUCATION BLK 2 professional program
EDC	330	Literacy I: Emerging Literacy and Phonemic Awareness	Development of language from birth to age 8, and appropriate strategies for promoting growth in speaking, listening, reading, and writing.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	335	Literacy II: Intermediate Literacy and Phonetic Principles	Strategies for teaching literacy in intermediate elementary classrooms, the application of phonetic principles to instruction, and integrating literacy across disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 2 professional program
EDC	340	Writing and the Professional Educator	Professional writing focused on foundational issues in education, including the culture of schooling, current social contexts, and educational law.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
EDC	345	Math Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing mathematics in grades K-8. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 2 professional program
EDC	350	Educational Technology I: Applications	Module focused on basic technological skills needed for managing classroom instruction.	N	LAB	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: must be in the ECEDC1 professional program. Co-requisite: EDC474
EDC	351	Educational Technology II: Instruction and Evaluation	Module focused on technology as an instructional medium, evaluation, and effective classroom use.	N	LAB	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: must be in the ELEM EDUCATION BLK 1 professional program. Co-Requisite: EDC474
EDC	352	Educational Technology III: Design	Module focused on instructional design utilizing a variety of technologies, including multimedia.	N	LAB	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: must be in the ELEM EDUCATION BLK 1 professional program. Co-requisite: EDC474
EDC	354	Educational Media in the Classroom	Designing and implementing educational media into the K-12 curriculum. Includes instructional design, evaluation of sources, and introduction to multimedia applications.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	355	Accommodating Instruction for Diverse Learners	Identifying and accommodating learners with special needs, including classroom adaptations in instruction and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EDC	405	Classroom Management K-12	Strategies for effective classroom management in K-12 schools. Includes models, application, and evaluation of a variety of management systems.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	410	Introduction to Gifted Education	Introduces gifted education and implications to pre-K-12 classroom instruction. Focuses on identification of giftedness and planning instruction for diverse gifted learners. Credit is allowed for only EDC 410 or 510.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	420	Integrated Learning Experience III: Assessment	Principles related to classroom assessment, including the alignment of assessment to curriculum, test interpretation, and a variety of assessment techniques.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisites: must be in the ELEM EDUCATION BLK 3 professional program and have a University cumulative GPA of 2.50 or greater

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EDC	425	Integrated Learning Experience IV: Advanced Management and Professional Knowledge	Explores issues related to professional knowledge, including interdisciplinary instruction, management, and the impact of the community on students' learning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisites: Must be in the ELEM EDUCATION BLK 4 professional program. Co-requisite: EDC484
EDC	430	Literacy III: Interventions	Strategies for accommodating students struggling with learning, with a focus on the areas of literacy acquisition and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: must be in the ELEM EDUCATION BLK 3 professional program and have a University cumulative GPA of 2.50 or greater
EDC	440	Science Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing sciences in grades K-8. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 3 professional program
EDC	442	Outdoor Education	Interdisciplinary field-oriented course designed to provide students with basic knowledge of outdoor education and its relationship to the total school curriculum. Includes assigned fieldwork.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Students who have credit for EDC 542, may not enroll in EDC 442
EDC	450	Social Studies Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing social studies in grades K-8.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 3 professional program
EDC	455	Diverse Learners in the K-8 Classroom	Identifies and implements instructional practices for students with diverse needs in the elementary classroom. Laws related to special populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	460	Principles of Curriculum and Instruction in the K-8 Classroom	Current research and practices related to the K-8 curriculum, including application of motivation and learning theories, lesson development, and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	465	Literacy Instruction in the K-8 Classroom	Principles of a developmentally appropriate elementary literacy curriculum and related instructional practices. Encompasses reading, language arts, writing, and oral expression.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	474	Field Experience	Applies course content in a K-8 school. Emphasis on observation, classroom management, planning and delivery of instruction, and assessment. Fee.	Y	FLD	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EDC	475	Social Studies Instruction in the K-8 Classroom	Principles of a developmentally appropriate social studies curricula and related instructional practices. Emphasizes cultural diversity and implications of a global society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	480	Theory of Mathematics and Science Instruction	Examines theoretical and conceptual frameworks of elementary mathematics and science instruction. Emphasizes academic content standards and prerequisite knowledge. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		Pre-requisites: must be enrolled/enrolling in EDC425 and be in the ELEM EDUCATION BLK 4 professional program
EDC	485	Science Instruction in the K-8 Classroom	Principles of a developmentally appropriate science curricula and related instructional practices, with an emphasis on learner-centered methodologies. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EDC	495	Mathematics Instruction in the K-8 Classroom	Principles of a developmentally appropriate mathematics curricula and related instructional practices, including a range of learning theories and their application. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
EDC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EDP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	302	Assessment and Evaluation in Education	Applies assessment and evaluation principles to education contexts, using a case format.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
EDP	303	Human Development	Selected aspects of child and adolescent development. Emphasizes possibilities for influence by teachers and parents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	L or SB	Pre-requisites: Fulton Education Undergraduate student
EDP	310	Educational Psychology for Non-Teachers	Human behavior in educational situations. Individual differences, factors affecting learning, behavioral and cognitive learning, motivation, testing, and assessment.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	SB	
EDP	311	Educational Psychology for Future Teachers	Planning and conducting effective instruction based on learning theories and principles.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3	SB	
EDP	313	Childhood and Adolescence	Principles underlying total development of pre- and early-adolescent children. Emphasizes physical, intellectual, social, and emotional development with practical implications for teachers. Meets ADE requirement for one course in early adolescent psychology for middle grade endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	SB	
EDP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		

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EDP	454	Statistical Data Analysis in Education	Role of data analysis in research and decision making. Elements of exploratory data analysis, descriptive indexes, and statistical inference.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	
EDP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDP	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6		
EDP	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	L	Pre-requisites: Must be an Honors student
EDP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-7		
EDP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
EDP	502	Introduction to Data Analysis	Descriptive statistics, visual approaches, estimation, and inferential methods for univariate and bivariate educational research problems. Experience using statistical software.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	503	Introduction to Qualitative Research	Terminology, historical development, approaches (including ethnography, ethnomethodology, critical theory, grounded theory, and hermeneutics), and qualitative versus quantitative social sciences; methods of inquiry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	510	Essentials of Classroom Learning	Theoretical and empirical foundations of learning in the classroom milieu. Critical exposure to research and method in instructional psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	513	Child Development	Examines problems and achievements experienced by children growing up in a technological society. Emphasizes discovering the child's perspective.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	514	Psychology of the Adolescent	Cognitive, physical, and social development of adolescents in contemporary society. Impact of family, school, and workplace on adolescent development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	523	Educational Assessment	Increases teachers' and others' competence in classroom assessment, grading, and testing. Emphasizes integration of curriculum, instruction, and assessment.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	529	Lifespan Human Development	Issues and models of human development as it occurs across the lifespan.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	530	Theoretical Issues and Research in Human Development	Psychological theories, research, and methods relevant to human development, emphasizing the relations between early development and later performance.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	535	Applied Behavior Analysis	Principles of conditioning as applied to behavior. Current research on the experimental analysis of behavior in educational psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	536	Physiology of Behavioral Disorders	Critical study of nervous system, brain function for fundamental behaviors, and system dysfunctions in mental/neurological disorders.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	540	Theoretical Views of Learning	Classical and cognitive theories of learning, plus recent orientations. Illustrative experimental and rational foundations; implications for educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	541	Motivating Students to Learn	Examines multiple perspectives on motivation and the management of learning environments as bases for reflecting on educational practice.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	542	Research Methods in the Learning Sciences	Students read, design, and carry out original research in the learning sciences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student and completion of EDP 540 with a grade of C or better
EDP	544	Psychology of Reading	Alternate analyses of the reading process; designs and procedures for investigating instructional and noninstructional variables related to reading achievement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	545	Higher-Order Processes in the Learning Sciences	Examines original research on induction, deduction, analogy and transfer, knowledge representation, and other issues in learning.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	550	Introduction to Measurement in Education	Nature and types of educational measures. Critiquing and selecting appropriate measuring devices. Constructing measuring devices. Social controversies about tests.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EDP	552	Multiple Regression and Correlation Methods	Educational applications of regression techniques. Quantitative and qualitative predictors, curvilinear trends, and interactions. Emphasizes analyzing data and interpreting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	554	Analysis-of-Variance Methods	Educational applications of ANOVA techniques. Between- and within-subjects designs, multiple comparisons. Emphasizes using statistical software and interpreting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	560	Individual Intellectual Assessment	Issues in administration and interpretation of individual intelligence tests. Theoretical basis, ethical considerations, and diagnostic use of test results. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: School Psychology Ph.D or Counseling Psychology Ph.D
EDP	561	Lab in Psychological Assessment	Lab experience in administration, scoring, and interpretation of individual intelligence tests.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Co-enrolled in EDP 560
EDP	562	School Psychology: Ethics, Theory, and Practice	Provides information regarding the ethics, history, and theory of current school psychology practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	563	Interventions in School Psychology	Examines case-based consultation and consultation research relevant to school psychology practice.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	564	Academic Interventions	Skills-building course emphasizing academic interventions and outcome-based educational decisions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	566	Diagnosis of Learning Difficulties	Clinical diagnosis of learning difficulties, emphasizing specific academic problems. Use and interpretation of diagnostic instruments in practical school situations. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDP 560 and 562 with a grade of B or better
EDP	567	School Psychological Services to Minority Students	Historical perspectives and major issues in psychological and academic assessment and interventions with minority school children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	568	Diagnosis and Interventions for Children and Adolescents with Emotional Handicaps	Clinical diagnosis of emotional handicaps in children and adolescents with emphasis on interpretation of diagnostic instruments and designing appropriate interventions in school settings. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EDP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	651	Methods and Practices of Qualitative Research	Advanced course for students familiar with theory and extant work. Topics include data collection, analysis, reporting, and an extensive fieldwork project.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of COE 503 with a grade of C or better
EDP	652	Multivariate Procedures for Data Analysis	Educational applications of multivariate methods, including MANOVA, discriminant analysis, and exploratory factor analysis. Emphasizes analyzing data and reporting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	654	Structural Equation Modeling in Educational Research	Educational applications of confirmatory factor analysis, path analysis, and full latent variable models. Experience in conducting analyses and reporting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDP	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership ME or Doctoral student
EDP	510	Essentials of Classroom Learning	Theoretical and empirical foundations of learning in the classroom milieu. Critical exposure to research and method in instructional psychology.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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EDP	510	Essentials of Classroom Learning	Theoretical and empirical foundations of learning in the classroom milieu. Critical exposure to research and method in instructional psychology.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDP	513	Child Development	Examines problems and achievements experienced by children growing up in a technological society. Emphasizes discovering the child's perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDP	514	Psychology of the Adolescent	Cognitive, physical, and social development of adolescents in contemporary society. Impact of family, school, and workplace on adolescent development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDP	523	Educational Assessment	Increases teachers' and others' competence in classroom assessment, grading, and testing. Emphasizes integration of curriculum, instruction, and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDP	303	Human Development	Selected aspects of child and adolescent development. Emphasizes possibilities for influence by teachers and parents.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L or SB	
EDP	311	Educational Psychology for Future Teachers	Planning and conducting effective instruction based on learning theories and principles.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3	SB	
EDP	313	Childhood and Adolescence	Principles underlying total development of pre- and early-adolescent children. Emphasizes physical, intellectual, social, and emotional development with practical implications for teachers. Meets ADE requirement for one course in early adolescent psychology for middle grade endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
EDP	323	Professional Development, Learning, and Motivation	Applies educational psychology principles in classrooms; strategies for building classroom community; learner-centered and intentional teaching; and proactive professional development.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 321, BLE 322, BLE 324 and EED 397 OR Elem Ed, BLE 321, EED 324, EED 397 and RDG 322 OR PDS (Professional Development School) student as appropriate
EDT	300	Computers in Education	Introduces general computer applications, teacher utility programs, World Wide Web, and evaluation of educational software. Required for majors in the Mary Lou Fulton College of Education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisites: Initial Teacher Certification Program Admission
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	
EDT	323	Computer Applications	Introduces database design principles using Microsoft Access and general programming concepts using the Visual Basic.Net programming language.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	Pre-requisites: EDT 321 or CSE 180 or any ACO, CIS, CSE, or CST course with a D or better or currently enrolled
EDT	329	Games, Simulations, and Virtual Environments	Focuses on the use of Gaming, Simulations, and Virtual Environments (GS/VE) in education and instruction. Examines how educational professionals and other practitioners can leverage students interests in digital culture to accelerate their learning. Participants explore the foundational, social, and cultural implications of these new media and the power they hold to engage learners in new ways. Discusses historical overview of GS/VE with an emphasis on educational applications. Analyzes the distinctive features of GS/VE from different pedagogical, psychological (cognitive/emotional), social, and entertainment perspectives. Participants learn how to analyze the design of games, simulations, and virtual environments, creating evaluative criteria for the selection of products in educational environments.	N	LEL	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDT	405	Presentation Technology for Multimedia	Explores multimedia hardware and software used in creating presentations for educational, corporate, and commercial applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	406	Computer Graphics and Animation	Study and application of design and animation techniques for use in video or computer-based presentations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

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EDT	455	Authoring Tools	Use of current authoring tools to design and deliver computer-based instructional materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
EDT	501	Foundations and Issues in Educational Technology	Introduces educational technology. Examines accomplishments and issues in the field.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	502	Design and Development of Instruction	Design, development, and formative evaluation of objectives-based instructional materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
EDT	503	Instructional Media Design	Uses media selection, design, and production principles to prepare design specifications for solutions to instructional messages and products.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	504	Development of Computer-Based Instruction	Systematic design, development, and formative evaluation of computer-based instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	505	Multimedia Presentation Techs	Explores the design of multimedia presentations and the utilization of tools and resources to effectively deliver those presentations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	506	Educational Evaluation	Procedures for evaluating educational programs, training systems, and new-technology applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	507	Trends in Performance Improvement	Introduces the field of human performance technology. Emphasizes the analysis of performance problems, their causes, and interventions.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: EDT 501 with B or better
EDT	511	Technology Applications in Education	Integrates and evaluates emerging technologies into K-12 and adult teaching and learning.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	520	Educational Technology and Training	Applies educational technology to training and human performance systems in business, industry, and government; emphasizes trends and project management.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 501 with a grade of C or better
EDT	523	Distance Education Theory and Practice	Explores development of distance learning principles by examining national and international systems and applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	525	Web Resources for Educators	Explores Web-based and distance learning applications for educators.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	527	Instructional Video Production	Design and production of instructional video.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 503 with a grade of C or better
EDT	528	Development of Web-Based Instruction	Design and development of online instruction using advanced technologies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	530	Technology Integration Methods across the Curriculum	Examines a constructivist approach to technology in education. Investigates technology as a catalyst for rethinking instructional goals and practices.	N	LEL	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	531	Hypermedia	Design, development, and evaluation of open-ended, nonlinear computer-based tools and applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 455 with a grade of C or better
EDT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
EDT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
EDT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	594	Conf and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
EDT	701	Research in Educational Technology	Review and analysis of research studies in educational technology. Methodology for designing, conducting, and reporting educational technology research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 501 and 502 with a grade of C or better
EDT	702	Research in Technology-Based Education	Critical exposure to theories, research, and methods in technology-based education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	703	Research in Distance Education	Seminar with emphasis on research in telecommunications and distance education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: EDT 523 with a grade of C or better
EDT	704	Emerging Technologies in Education	Examines the role and impact of emerging technologies in education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
EDT	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completed EDT 501, EDT 502, and EDT 503 with a C or better
EDT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisites: Completion of EDT 701 with a grade of C or better
EDT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	505	Multimedia Presentation Techs	Explores the design of multimedia presentations and the utilization of tools and resources to effectively deliver those presentations.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDT	506	Educational Evaluation	Procedures for evaluating educational programs, training systems, and new-technology applications.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDT	530	Technology Integration Methods across the Curriculum	Examines a constructivist approach to technology in education. Investigates technology as a catalyst for rethinking instructional goals and practices.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student

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EDT	545	Using the Internet in Education	Explores the Internet as an educational tool for research, inquiry-based learning, and online learning communities. Incorporates constructivist theory.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	546	Using Technologies for Presentations	Students create presentations appropriate for educational settings and electronic portfolios on CD-ROMs using scanners, digital/video cameras, and multimedia software. fee	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	547	Technology in Language Arts and Social Studies Education	Examines numerous ways technology is used to enhance teaching and learning in language arts and social studies classrooms.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	548	Technology in Mathematics and Science Education	Examines numerous ways technology is used to enhance teaching and learning in mathematics and science classrooms.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	549	Using the Internet and Case Studies to Solve Educational Problems	Provides a model of the use of distance education technologies.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	555	Advanced Web Site Design and Development	Prepares technology leaders to design and create interactive school and district Web sites.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	556	Managing School Information Systems	Applied course based on constructivist theory that examines the techniques and strategies of networking information systems within educational settings.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	575	Critical Issues in Technology	Exploration and critical analysis of theoretical issues related to using technology in education. Students do literature reviews for EDT 593.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	N	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDT	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDT	180	Computer Literacy	Introduces personal computer operations and their place in society. Problem-solving approaches using databases, spreadsheets, and word processing. Credit is allowed for only EDT 180 or 321.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	Students may not sign up for EDT 180 who have received a C or better in EDT 321.
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	
EDT	321-W	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of personal Web site. 2hours lecture, 2 hours lab.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	Studetns may not sign up for EDT 321 who have received a C or better in EDT 180
EED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EED	510	Teaching Writing in the Elementary Classroom	Develops rationale, theory, and related practices for teaching writing in K-8 classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

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EED	511	Principles of Curriculum Development	Contemporary curriculum theories. Curriculum as an interrelated entity. Principles of conceiving and effecting change.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	526	Communication Arts in the Elementary School	Critical examination of school language arts teaching, focusing on theoretical assumptions regarding oral- and written-language development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	529	Science in the Elementary School	Problems and trends of current programs. Development of a balanced and articulated science program.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	530	Outdoor/Environmental Education	Use of various outdoor settings as laboratories for classroom-related experience, study, observation, inquiry, research, and recreation. Includes strategies and materials for developing environmental literacy.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
EED	537	Mathematics in the Elementary School	Contemporary mathematics teaching. Content, materials, and approaches to instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	538	Teaching Social Studies with Literature	Develops the rationale, resources, and strategies for adopting a literature-based approach to social studies teaching in grades K-8.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	548	Teaching Geometry 5-8	Practical ideas and activities for teaching informal geometry grades 5-8, based on research on how students learn geometry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	576	Field Experience	Applies course content in elementary classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	0-3		
EED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	581	Diagnostic Practices in Mathematics	Specific skills in diagnosing and treating children's learning difficulties in mathematics. Includes practicum experiences, both on and off campus, in identifying strengths and weaknesses and initial remediation.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EED	720	Language in Education	Sociolinguistic seminar on language issues in education, including language acquisition, classroom interaction, language attitudes, relation language, and class-gender ethnicity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	730	Discourse Analysis in Education	Surveys issues in and approaches to discourse analysis in educational research, with focus on students' projects using discourse analysis.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	511	Principles of Curriculum Development	Contemporary curriculum theories. Curriculum as an interrelated entity. Principles of conceiving and effecting change.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	521	Instructional Planning and Management in the Inclusive Classroom	Planning and delivering instruction; organizing and managing classrooms; making adaptations for English language learners and students with special needs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	526	Communication Arts in the Elementary School	Critical examination of school language arts teaching, focusing on theoretical assumptions regarding oral- and written-language development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	529	Science in the Elementary School	Problems and trends of current programs. Development of a balanced and articulated science program.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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EED	531	Teaching with Educational Technology	Focuses on using technology in K-12 classrooms. Addresses the integration of technology in all curricular areas for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	537	Mathematics in the Elementary School	Contemporary mathematics teaching. Content, materials, and approaches to instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	538	Teaching Social Studies with Literature	Develops the rationale, resources, and strategies for adopting a literature-based approach to social studies teaching in grades K-8.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	564	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	578	Student Teaching in the Elementary School	Supervised teaching for postbaccalaureate students, synthesized experience in curriculum, instruction, and classroom management.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
EED	578	Student Teaching in the Elementary School	Supervised teaching for postbaccalaureate students, synthesized experience in curriculum, instruction, and classroom management.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
EED	578-W	Student Teaching in the Elementary School	Student teaching in elementary education setting for students in the MEd with Concentration in Teacher Certification.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
EED	579	Apprentice Teaching in Elementary Education	Apprentice teaching in elementary school classrooms. Must be taken four times for a total of 9 semester hours. Lab, field experience. Fee.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		

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EED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	324	Social Studies in Elementary Schools	Social studies education standards, curriculum, and instructional and assessment strategies for all children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed students; BLE 321, EDP 323, EED 397 and RDG 322 OR PDS (Professional Development School) student as appropriate
EED	331	Integrated Children's Literature with a K-3 Focus	Examines selection and use of a wide variety of children's literature to support the K-3 curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission Co-requisites: RDG 415, RDG 431, SPE 416, EED 496 and EED 433
EED	332	Integrated Children's Literature with a 4-8 Focus	Examines selection and use of a wide variety of children's literature to support the 4-8 curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission
EED	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
EED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	397	Field Experience II	Observation, instruction, and management of small groups and the whole class. fee	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Elem Ed/ESL or Elem Ed/BLE, BLE 321, BLE 322, BLE 324 and EDP 323 OR Elem Ed; BLE 321, EDP 323, EED 324 and RDG 322 OR PDS (Professional Development School) student as appropriate
EED	411	Science in Elementary Schools	Science education standards, curriculum, instructional and assessment strategies for all children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, BLE 414, EED 412, EED 496 OR Elem Ed, EED 412, EED 414, EED 498 and RDG 413 OR PDS (Professional Development School)
EED	412	Mathematics in Elementary Schools	Methods of teaching mathematics to all students at the K-8 level, instructional planning and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, BLE 414, EED 411, EED 496 OR Elem Ed, EED 411, EED 414, EED 496 and RDG 413 OR Special Ed, SPE 318, SPE 423, SPE 424, SPE 431, SPE 496 OR PDS (Professional Development School)
EED	412	Mathematics in Elementary Schools	Methods of teaching mathematics to all students at the K-8 level, instructional planning and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EED	414	Elementary School Curriculum and Organization	Rationales for instructional curricula; alternative curriculum designs and broad-based content; selected topics in school governance, finance, and law.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student, EED 411, EED 412, RDG 413 and EED 496 OR PDS (Professional Development School) student
EED	420	Science Methods, Management, and Assessment in the Elementary School	Examines philosophies of science and how these relate to the implementation, management, and assessment of science teaching. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EED	420	Science Methods, Management, and Assessment in the Elementary School	Examines philosophies of science and how these relate to the implementation, management, and assessment of science teaching. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; BLE 408, EED 455, EDT 300, RDG 432 and EED 496 completed with C or better or currently enrolled
EED	433	Language Method Management and Assessment	Theory on the social nature of oral and written language and congruent teaching, management, and assessment practices. Lecture, discussion, lab.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Initial Teacher Certification Program Admission
EED	444	Organizing the Classroom Culture	Examines how teachers can create and maintain a classroom learning community within the context of an elementary school program.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EED	444	Organizing the Classroom Culture	Examines how teachers can create and maintain a classroom learning community within the context of an elementary school program.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EED	455	Social Studies Methods, Management, and Assessment in the Elementary School	Teaching methods, classroom management strategies, and assessment techniques for social studies instruction in the elementary grades.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; EED 433, RDG 415, EED 498, RDG 431 and SPE 416 completed with C or better or currently enrolled; EED 496 with Y or currently enrolled
EED	464	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EED	478	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum, instruction, and classroom management.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
EED	478-W	Student Teaching in the Elementary School	Student teaching in elementary school classrooms; integration of all previous course work.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Co-requisites: Elementary Education student; EED 479 OR PDS (Professional Development School) student as appropriate
EED	479	Capstone Seminar in Elementary Education	Reflective, experienced-based integration of theory and practice; professional development for K-8 teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Education student; EED 478 OR PDS (Professional Development School) student as appropriate
EED	480	Mathematics Methods, Management, and Assessment in the Elementary School	Beginning course in the teaching, management, and assessment of mathematics in grades K–8.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Initial Teacher Certification Program Admission; BLE 408, EED 455, EDT 300 and RDG 432 completed with C or better or currently enrolled
EED	492	Honors Directed Study	Honors Directed Study	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisite: Must be an Honors student
EED	492	Honors Directed Study	Honors Directed Study	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisite: Must be an Honors student

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EED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisite: Must be an Honors student
EED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	496	Field Experience	Applies course content in a K?8 school classroom. Emphasizes observation, pupil management, planning and delivery of instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Initial Teacher Certification Program Admission
EED	496-W	Field Experience III	Instruction and management of small groups and substantial work with the whole class. fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, BLE 414, EED 411, EED 412 OR Elem Ed, EED 411, EED 412, EED 414 and RDG 413 OR PDS (Professional Development School)
EED	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	
EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EEE	101	Introduction to Engineering Design	Introduces engineering design, teaming, engineering profession; computer models and programming; communication skills; design of electrical and computer-based systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	2.		
EEE	120	Digital Design Fundamentals	Number systems, conversion methods, binary and complement arithmetic, Boolean algebra, circuit minimization, ROMs, PLAs, flipflops, synchronous sequential circuits. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-3		
EEE	202	Circuits I	Principles for analyzing linear and nonlinear circuits. Uses SPICE and MATLAB. Design and measurement of linear analog electrical systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: EE student with Intro to ES; Pre/Co-requisite: PHY 131 and MAT 274 or 275 (with C or better if completed) OR Non-EE student with any Intro to Engr. Pre/Co-requisite: PHY 131 and MAT 274 or 275
EEE	203	Signals and Systems I	Introduces continuous and discrete time signal and system analysis, linear systems, Fourier, and z-transforms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: A grade of D or better in EEE 202 (or currently enrolled) or EEE 302 AND a grade of C or better in MAT 242, 342 or 343 or be co-enrolled in MAT 242, 342 or 343.
EEE	230	Computer Organization and Assembly Language Programming	Register-level computer organization. Instruction set architecture. Assembly language. Processor organization and design. Memory organization. IO programming, Exception/interrupt handling. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: A grade of D or better in CSE 100 or CSE 110 or CSE 200 AND a grade of D or better in CSE 120 or EEE 120.
EEE	241	Fundamentals of Electromagnetics	Vector analysis, differential operators, fourier analysis, scalar, vector fields, electro/magneto statics, time-varying fields, boundary value problems, dielectric, magnetic materials, Maxwell's equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: MAT 362 and PHY 131 with C or better or currently enrolled; ECE 201 with D or better OR MAT 267 or 272 and MAT 274 or 275 and PHY 131 with C or better or currently enrolled; EEE 202 with D or better or currently enrolled
EEE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		

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EEE	304	Signals and Systems II	Communication, signal processing, control systems, continuous, discrete transforms, sampling theorem, analog, digital modulation, filter design, signal processing applications, state space. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 or EEE 303 completed with a grade of D or better or be currently enrolled in EEE 203
EEE	333	Hardware Design Languages and Programmable Logic	Develops digital logic with modern practices of hardware description languages. Emphasizes usage, synthesis of digital systems for programmable logic, VLSI. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students AND grade of D or better in CSE101,ECE100,200,EEE101 AND grade of D or better in CSE120 or EEE120 or be currently enrolled.
EEE	334	Circuits II	Design of analog and digital circuits. Diodes/BJTs/Mosfets. Digital and analog circuit building blocks. Fundamentals of mixed signal circuits. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE student and a grade of D or better in ECE201 or EEE202
EEE	335	Analog and Digital Circuits	Analog, digital microelectronic circuits and systems. Gate sizing, timing analysis, sequential digital circuits. Amplifiers, multi-stage op-amps, A/D, D/A converters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; Must have completed EEE 334 or ECE 334 with a grade of D or better or be currently enrolled in EEE 334
EEE	341	Engineering Electromagnetics	Time-varying electromagnetic fields, waves in homogeneous and stratified media, transmission lines, waveguides and cavity resonators, radiation and antennas. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS or BSE student; EEE 203 or EEE 303 completed with a D or better or currently enrolled in EEE 203; EEE 241 completed with D or better (or MAT 362 completed with a grade of C or better) or currently enrolled in EEE 241
EEE	350	Random Signal Analysis	Probabilistic and statistical analysis as applied to electrical signals and systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 203, EEE 303 or MAE 317 completed with a D or greater or currently enrolled in EEE 203 or MAE 317 or co-enrolling in EEE 203 OR Graduate Engineering students
EEE	352	Properties of Electronic Materials	Schrodinger's wave equation, potential barrier problems, bonds of crystals, the band theory of solids, semiconductors, superconductor dielectric, and magnetic properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS or BSE students; MAT 362 with C or better or EEE 241 with a D or better or currently enrolled; PHY 241 or 361 with a C or greater or currently enrolled; CHM 114, 115, 116 or 118 with a D or greater or currently enrolled
EEE	360	Energy Systems and Power Electronics	Conventional and alternate energy sources for power systems, three-phase analysis, AC generators, transformers, induction, DC motors, power electronic speed control. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE student; EEE 202 or ECE 201 completed with a D or better or currently enrolled in EEE 202; EEE 241 completed with a D or better or currently enrolled OR Graduate Engineering student
EEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		
EEE	404	Real-Time DSP Systems	Digital signal processors, translating signals and systems concepts into real-time multimedia and communications applications, real-time algorithms. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 (or EEE 303) with D or better; EEE 230 (or CSE 230, EEE 225 or EEE 226) with D or better
EEE	407	Digital Signal Processing	Time and frequency domain analysis, difference equations, z-transform, FIR and IIR digital filter design, discrete Fourier transform, FFT, and random sequences. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 or EEE 303 completed with a D or greater or currently enrolled in EEE 203; MAT 342 or 343 completed with a C or greater or currently enrolled
EEE	425	Digital Systems and Circuits	Digital logic gate analysis and design. Propagation delay times, fan out, power dissipation, noise margins. Design of MOS and bipolar logic families, including NMOS, CMOS, standard and advanced TTL, ECL, and BiCMOS. Inverter, combinational and sequential logic circuit design, MOS memories, VLSI circuits. Computer simulations using PSPICE. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 335 completed with a D or better or currently enrolled
EEE	433	Analog Integrated Circuits	Analysis, design, and applications of modern analog circuits using integrated bipolar and field-effect transistor technologies. Fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 335 completed with a D or greater or currently enrolled
EEE	434	Quantum Mechanics for Engineers	Angular momentum, wave packets, Schroedinger wave equation, probability, problems in one dimension, principles of wave mechanics, scattering, tunneling, central forces, angular momentum, hydrogen atom, perturbation theory, variational techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 241 or EEE 340 completed with a grade of D or better or currently enrolled in EEE 241; EEE 352 or ECE 352 completed with a grade of D or better or currently enrolled in EEE 352
EEE	435	Microelectronics	Introduces basic CMOS processing and fabrication tools. Covers the fundamentals of thermal oxidation, CVD, implantation, diffusion, and process integration. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Must be an Engineering BS/BSE student AND earn a grade of D or better in EEE 436 or be co-enrolled in EEE 436.
EEE	436	Fundamentals of Solid-State Devices	Semiconductor fundamentals, pn junctions, metal-semiconductor contacts, metal-oxide-semiconductor capacitors and field-effect transistors, bipolar junction transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in EEE 352 or ECE 352.
EEE	437	Optoelectronics	Basic operating principles of various types of optoelectronic devices that play important roles in commercial and communication electronics; light-emitting diodes, injection lasers, and photodetectors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in EEE437.
EEE	439	Semiconductor Facilities and Cleanroom Practices	Microcontamination, controlled environments, cleanroom layout and systems, modeling, codes and legislation, ultrapure water, production materials, personnel and operations, hazard management, advanced concepts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in EEE 435.
EEE	443	Antennas for Wireless Communications	Fundamental parameters; radiation integrals; wireless systems; wire, loop, and microstrip antennas; antenna arrays; smart antennas; ground effects; multipath.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 341 with D or better
EEE	445	Microwaves	Waveguides; circuit theory for waveguiding systems; microwave devices, systems, and energy sources; striplines and microstrips; impedance matching transformers; measurements. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 340 or EEE 341 completed with a D or better or currently enrolled in EEE 341

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EEE	448	Fiber Optics	Principles of fiber-optic communications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 340 or EEE 341 completed with a D or better or currently enrolled in EEE 341
EEE	455	Communication Systems	Signal analysis techniques applied to the operation of electrical communication systems. Introduction to and overview of modern digital and analog communications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE; EEE 350 completed with a D or better or currently enrolled; EEE 203 or EEE 303 completed with a D or better or currently enrolled in EEE 203
EEE	459	Communication Networks	Fundamentals of communication networks. Study of Seven-Layer OSI model. Focus on functionality and performance of protocols used in communication networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE and a grade of D or better in EEE 202 or 203.
EEE	460	Nuclear Concepts for the 21st Century	Radiation interactions, damage, dose, and instrumentation. Cosmic rays, satellite effects; soft errors; transmutation doping. Fission reactors, nuclear power. TMI, Chernobyl. Radioactive waste.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in PHY241, 294 or 361 OR a grade of D or better in CHM114, 115 or 116 and a grade of C or better in MAT 274 or 275 and a grade of C or better in PHY241 or 361.
EEE	463	Electrical Power Plants	Generation of electric power using fossil, nuclear, and renewable, including solar, geothermal, wind, hydroelectric, biomass and ocean, energy sources. Power plant thermal cycle analysis. Cogeneration and combined cycles. Economics, operations, and design of electric power stations. Energy storage.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; CHM 114 or CHM 116 with D or better or currently enrolled; MAT 274 or MAT 275 with C or better or currently enrolled; MAE 240 (or ECE 340) with D or better or PHY 241 with C or better or currently enrolled
EEE	470	Electric Power Devices	Analyzes devices used for short circuit protection, including circuit breakers, relays, and current and voltage transducers. Protection against switching and lightning over voltages. Insulation coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	471	Power System Analysis	Review of transmission line parameter calculation. Zero sequence impedance, symmetrical components for fault analysis, short circuit calculation, review of power flow analysis, power system stability, and power system control concepts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	473	Electrical Machinery	Operating principles, modeling and speed control of DC, brushless DC, and AC machines; power converters for DC and AC motors drives.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	480	Feedback Systems	Analysis and design of linear feedback systems. Frequency response and root locus techniques, series compensation, and state variable feedback. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in EEE203 or MAE318 or be currently enrolled.
EEE	481	Computer-Controlled Systems	Implements computer-based, embedded, control systems using MATLAB xPC Target toolbox. Small-scale, representative projects demonstrate theoretical issues and provide hands-on expertise.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 203 and EEE 230 (or CSE 230) with D or better or only MAE 318 with D or better
EEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	488	Senior Design Laboratory I	Design process: research, concept, feasibility, simulation, specifications, benchmarking, and proposal generation. Technical communications and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.	L	Pre-requisites: Engineering BS/BSE student; ENG 102 (or 105 or 108), EEE 241, EEE 350, EEE 334, and 4 courses from EEE 304, 333, 335, 341, 352 or 360, all with D or better
EEE	489	Senior Design Laboratory II	Implement, evaluate, and document EEE 488 design. Social, economic, and safety considerations. Technical communications and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.	L	Pre-requisites: Engineering BS/BSE students; EEE 488 with D or better or be currently enrolled. Seniors or PostBacc undergraduates only.
EEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-6		Pre-requisites: Must be an Honors student in BSE Electrical Engineering; senior academic level
EEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	0-6	L	Pre-requisites: Must be an Honors student in BSE Electrical Engineering; senior academic level
EEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		Pre-requisites: Engineering BS/BSE student and a grade of D or better in EEE 433.
EEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-7		Pre-requisites: Engineering BS/BSE students only.
EEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-3		Pre-requisites: Senior Electrical Engineering BSE students only.
EEE	505	Time-Frequency Signal Processing	Joint time-frequency analysis of time-varying signals and systems; linear and quadratic time-frequency representations; applications in current areas of signal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students only.
EEE	506	Digital Spectral Analysis	Principles and applications of digital spectral analysis, least squares, random sequences, parametric, and nonparametric methods for spectral estimation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	507	Multidimensional Signal Processing	Processing and representation of multidimensional signals. Design of systems for processing multidimensional data. Introduces image and array processing issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	508	Digital Image and Video Processing and Compression	Fundamentals of digital image perception, representation, processing, and compression. Emphasizes image coding techniques. Signals include still pictures and motion video.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	509	DSP Algorithms and Software	Linear systems review, digital filter design, software aspects, DFT, FFT, random signals, programming aspects, applications projects, MATLAB and Java simulations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	510	Multimedia Signal Processing	Speech/audio coding algorithms. LPC, CELP, MPEG, Cell phone, DTV, cinema, and surround sound standards. MPEG/JPEG introduction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	511	Artificial Neural Computation Systems	Networks for computation, learning function representations from data, learning algorithms and analysis, function approximation and information representation by networks, applications in control systems and signal analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in CHE 518, MSE 518, or MSE 475 you may not enroll in EEE 518
EEE	523	Advanced Analog Integrated Circuits	Analysis and design of analog integrated circuits: analog circuit blocks, reference circuits, operational-amplifier circuits, feedback, and nonlinear circuits.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	524	Communication Transceiver Circuits Design	Communication transceivers and radio frequency system design; fundamentals of transceivers circuits; RF, IF, mixers, filters, frequency synthesizers, receivers, CAD tools, and lab work on IC design stations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	525	VLSI Design	Analysis and design of Very Large Scale Integrated (VLSI) circuits. Physics of small devices, fabrication, regular structures, and system timing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	526	VLSI Architectures	Special-purpose architectures for signal processing. Design of array processor systems at the system level and processor level. High-level synthesis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	527	Analog to Digital Converters	Detailed introduction to the design of Nyquist rate, CMOS analog to digital converters.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG/MS/MSE/PHD/MCS students OR Science & Engr Of Materials students AND a grade of C or better in EEE 523.
EEE	530	Advanced Silicon Processing	Thin films, CVD, oxidation, diffusion, ion-implantation for VLSI, metallization, silicides, advanced lithography, dry etching, rapid thermal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	531	Semiconductor Device Theory I	Transport and recombination theory, pn and Schottky barrier diodes, bipolar and junction field-effect transistors, and MOS capacitors and transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	532	Semiconductor Device Theory II	Advanced MOSFETs, charge-coupled devices, solar cells, photodetectors, light-emitting diodes, microwave devices, and modulation-doped structures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students and a grade of C or better in EEE 531 or be currently enrolled OR Science & Engr Of Materials PhD students.
EEE	533	Semiconductor Process/Device Simulation	Process simulation concepts, oxidation, ion implantation, diffusion, device simulation concepts, pn junctions, MOS devices, bipolar transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	534	Semiconductor Transport	Carrier transport in semiconductors. Hall effect, high electric field, Boltzmann equation, correlation functions, and carrier-carrier interactions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	535	Electron Transport in Nanostructures	Nanostructure physics and applications. 2-D electron systems, quantum wires and dots, ballistic transport, quantum interference, and single-electron tunneling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	536	Semiconductor Characterization	Measurement techniques for semiconductor materials and devices. Electrical, optical, physical, and chemical characterization methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	537	Semiconductor Optoelectronics	Electronic states in semiconductors, quantum theory of radiation, absorption processes, radiative processes, nonradiative processes, photoluminescence, and photonic devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	538	Introduction to Microelectromechanical Systems	Microelectromechanical systems and devices emphasizing analytical and numerical modeling of actuation and sensing mechanisms with an overview of fabrication technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	539	Intro Solid-State Electronics	Crystal lattices, reciprocal lattices, quantum statistics, lattice dynamics, equilibrium, and nonequilibrium processes in semiconductors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	540	Fast Computational Electromagnetics	Method of moments, finite difference time-domain, finite element methods implemented using fast algorithms (wavelets, FMM, Nystrom) to gain high efficiency.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	541	Electromagnetic Fields and Guided Waves	Polarization and magnetization; dielectric, conducting, anisotropic, and semiconducting media; duality, uniqueness, and image theory; plane wave functions, waveguides, resonators, and surface guided waves.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	543	Antenna Analysis and Design	Impedances, broadband antennas, frequency independent antennas, miniaturization, aperture antennas, horns, reflectors, lens antennas, and continuous sources design techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.

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EEE	544	High-Resolution Radar	Fundamentals; wideband coherent design, waveforms, and processing; stepped frequency; synthetic aperture radar (SAR); inverse synthetic aperture radar (ISAR); imaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	545	Microwave Circuit Design	Analysis and design of microwave attenuators, in-phase and quadrature-phase power dividers, magic tees, directional couplers, phase shifters, DC blocks, and equalizers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	546	Advanced Fiber Optics	Theory of propagation in fibers, couplers and connectors, distribution networks, modulation, noise and detection, system design, and fiber sensors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	547	Microwave Solid-State Circuit Design I	Applies semiconductor characteristics to practical design of microwave mixers, detectors, limiters, switches, attenuators, multipliers, phase shifters, and amplifiers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	548	Coherent Optics	Diffraction, lenses, optical processing, holography, electro-optics, and lasers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	549	Lasers	Theory and design of gas, solid, and semiconductor lasers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	550	Transform Theory and Applications	Introduces abstract integration, function spaces, and complex analysis in the context of integral transform theory. Applications to signal analysis, communication theory, and system theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	551	Information Theory	Entropy and mutual information, source and channel coding theorems, applications for communication and signal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	552	Digital Communications	Complex signal theory, digital modulation, optimal coherent and incoherent receivers, channel codes, coded modulation, Viterbi algorithm.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	553	Coding and Cryptography	Introduces algebra, block and convolutional codes, decoding algorithms, turbo codes, coded modulation, private and public key cryptography.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	554	Random Signal Theory	Applies statistical techniques to the representation and analysis of electrical signals and to communications systems analysis.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	555	Modeling and Performance Analysis	Modeling and performance analysis of stochastic systems and processes such as network traffic queueing systems and communication channels.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	556	Detection and Estimation Theory	Combines the classical techniques of statistical inference and the random process characterization of communication, radar, and other modern data processing systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	557	Broadband Networks	Physics of wireless and optical communications. Broadband multiplexing and switching methods. Blocking and queuing analysis. Network optimization, routing, and economics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	558	Wireless Communications	Cellular systems, path loss, multipath fading channels, modulation and signaling for wireless, diversity, equalization coding, spread spectrum, TDMA/FDMA/CDMA.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	562	Nuclear Reactor Theory and Design	Principles of neutron chain reacting systems. Neutron diffusion and moderation. One-, two-, and multigroup diffusion equation solution methods. Heterogeneous reactors. Nuclear fuel steady-state performance. Core thermal-hydraulics. Core thermal design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	563	Nuclear Reactor System Dynamics and Diagnostics	Time-dependent solution to neutron diffusion equation. Reactor kinetics and reactivity changes. Dynamics, stability, and control of reactor systems. Modeling neutronic and thermal processes. System characterization in time and frequency domains. Reactor surveillance and diagnostics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	564	Interdisciplinary Nuclear Power Operations	Nuclear power plant systems. Studies interrelationship and propagation of effects that systems and design changes have on one another, especially in relation to nuclear power plant safety and operations. Case studies and design projects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	571	Power System Transients	Simple switching transients. Transient analysis by deduction. Damping of transients. Capacitor and reactor switching. Transient recovery voltage. Travelling waves on transmission lines. Lightning. Protection of equipment against transient overvoltages. Introduces computer analysis of transients.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	572	Advanced Power Electronics	Analyzes device operation, including thyristors, gate-turn-off thyristors, and transistors. Design of rectifier and inverter circuits. Applications such as variable speed drives, HVDC, motor control, and uninterruptable power supplies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	573	Electric Power Quality	Sinusoidal waveshape maintenance; study of momentary events, power system harmonics, instrumentation, filters, power conditioners, and other power quality enhancement methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	574	Computer Solution of Power Systems	Algorithms for digital computation for power flow, fault, and stability analysis. Sparse matrix and vector programming methods, numerical integration techniques, stochastic methods, solution of the least squares problem.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	577	Power Engineering Operations and Planning	Economic dispatch, unit commitment, dynamic programming, power system planning and operation, control, generation modeling, AGC, and power production.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	579	Power Transmission and Distribution	High-voltage transmission line electric design; conductors, corona, RI and TV noise, insulators, clearances. DC characteristic, feeders voltage drop, and capacitors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	581	Filtering of Stochastic Processes	Modeling, estimation, and filtering of stochastic processes, with emphasis on the Kalman filter and its applications in signal processing and control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	582	Linear System Theory	Controllability, observability, and realization theory for multivariable continuous time systems. Stabilization and asymptotic state estimation. Disturbance decoupling, noninteracting control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	585	Digital Control Systems	Analysis and design of digital and sampled data control systems, including sampling theory, z-transforms, the state transition method, stability, design, and synthesis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	586	Nonlinear Control Systems	Stability theory, including phase-plane, describing function, Liapunov's method, and frequency domain criteria for continuous and discrete, nonlinear, and time-varying systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	587	Optimal Control	Optimal control of systems. Calculus of variations, dynamic programming, linear quadratic regulator, numerical methods, and Pontryagin's principle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	588	Design of Multivariable Control Systems	Practical tools for designing robust MIMO controllers. State feedback and estimation, model-based compensators, MIMO design methodologies, CAD, real-world applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Master of Engineering or Electrical Engineering MS/MSE/PHD students
EEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Department of Electrical Engineering	1.		
EEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	606	Adaptive Signal Processing	Principles and applications of adaptive signal processing, adaptive linear combiner, Wiener least-squares solution, gradient search, performance surfaces, LMS/RLS algorithms, block time/frequency domain LMS.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	607	Speech Coding for Multimedia Communications	Speech and audio coding algorithms for applications in wireless communications and multimedia computing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	625	Advanced VLSI Design	Practical industrial techniques, circuits, and architectures appropriate to high-performance and low-power digital VLSI designs such as microprocessors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	627	Oversampling Sigma-Delta Data Converters	Introduces design and analysis of sigma delta oversampled data converters from an IC design perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		

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EEE	631	Heterojunctions and Superlattices	Principles of heterojunctions and quantum well structures, band lineups, optical, and electrical properties. Introduces heterojunction devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students and a grade of C or better in EEE 531 or currently enrolled OR Science & Engr Of Materials PhD students.
EEE	641	Advanced Electromagnetic Field Theory	Cylindrical wave functions, waveguides, and resonators; spherical wave functions and resonators; scattering from planar, cylindrical, and spherical surfaces; Green's functions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	643	Advanced Topics in Electromagnetic Radiation	High-frequency asymptotic techniques, geometrical and physical theories of diffraction (GTD and PTD), moment method (MM), radar cross section (RCS) prediction, Fourier transforms in radiation, and synthesis methods.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	647	Microwave Solid-State Circuit Design II	Practical design of microwave free-running and voltage-controlled oscillators using Gunn and Impatt diodes and transistors; analysis of noise characteristics of the oscillator.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	686	Adaptive Control	Main topics covered: adaptive identification, convergence, parametric models, performance and robustness properties of adaptive controllers, persistence of excitation, and stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, Electrical Engineering MS/MSE/PHD students
EEE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	731	Advanced MOS Devices	Threshold voltage, subthreshold current, scaling, small geometry effects, hot electrons, and alternative structures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Electrical Engineering PhD students
EEE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-15		
EEE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Department of Electrical Engineering	1.		
EEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Department of Electrical Engineering	1-15		

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EET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
EET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	301	Electric Circuit Analysis II	Analysis of continuous-time signals and linear systems of using Laplace and Fourier response of circuits.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Must be Tech Sci BAS/BS/NonDegree or Engr BSE/NonDegree AND earned D or greater in EET 208 or currently enrolled OR Must be Tech Sci MS/MSTECH/AppBIO or Engr MS/MSE/PHD student
EET	304	Transmission Lines in Computer Networks	Theory and application of transmission lines in high-speed computer networks. Signal propagation and impedance matching.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		
EET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	396	Professional Orientation	Technical, professional, economic, and ethical aspects of electronics/computer engineering technology practice and industrial organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		
EET	401	Digital Signal Processing for Multimedia	Applies DSP techniques to multimedia. Digital filter analysis and design. Time and frequency techniques. Computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Tech Sci BAS/BS/NonDegree or Engr BSE/NonDegree AND University Cumulative GPA 2.25 or greater AND earned D or greater in MAT 262 or MAT 272 or currently enrolled OR Must be Tech Sci MS/MSTECH or Engr MS/MSE/PHD student
EET	403	PLCs, Sensors and Actuators	Applications, programming, and troubleshooting using PLCs. Interfacing to motors, sensors, and actuators. Fluid power principles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EET	406	Control System Technology	Control system components, analysis of feedback control systems, stability, performance, and application.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3-4		Prerequisites: Must be Tech Sci BAS/BS/NonDegree or Engr BSE/NonDegree AND Univ Cum GPA is 2.25 or greater AND earned D or greater in EET 301 AND MAT 262 or MAT 272 or currently enrolled OR Must be Tech Sci MS/MSTECH or Engr MS/MSE/PHD student
EET	407	Energy Conversion and Applications	Electricity, magnetism, mechanics, heat and units, and three-phase circuits. Electrical machines, transformers, generation, transmission, and distribution of electrical energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Must be Tech Sci or Engr BS/BSE/NonDegree AND Univ Cum GPA is 2.25 or greater AND must have earned D or greater in EET 208 or currently enrolled OR must be Tech Sci or Engr NonDegree, Tech Sci BAS/MS/MSTECH or Master Computing Studies
EET	410	Electronic Circuits II	Analysis and design of OP-amps, power amplifiers, and digital logic families. Feedback design using frequency response. Computer analysis and design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Must be Technology Science or Engr BS/BSE student AND Univ Cum GPA is 2.25 or greater AND earned D or greater in EET 301 and EET 310 or enrolled OR must be Technology Science MS/MSTECH, Engineering MS/MSE/PHD or TS/ES non-degree student
EET	430	Instrumentation Systems	Measurement principles and instrumentation, techniques. Signal and error analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Must be either Technology Science or Engr BS/BSE/BAS/NonDegree student AND Univ Cum GPA is 2.25 or greater AND earned D or greater in EET 301 and EET 310 or enrolled OR must be Technology Science MS/MSTECH, Engineering MS/MSE/PHD student
EET	460	Power Electronics	Analyzes circuits for control and conversion of electrical power and energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Must be Tech Sci BS/BAS or Engr BSE student AND University Cumulative GPA is 2.25 or greater AND earned D or greater in EET 301, EET 310 and EET 407 or currently enrolled OR Must be Tech Sci MS/MSTECH/NonDegree or Engr MS/MSE/PHD/NonDegree
EET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	506	System Dynamics and Control	Time, frequency, and transform domain analysis of physical systems. Transfer function analysis of feedback control systems performance and stability. Compensation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	508	Digital Real-Time Control	Sample data control techniques and applications to process control.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	530	Electronic Test Systems and Applications	Analysis, design, and application of electronic test equipment, test systems, specifications, and documentation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	560	Industrial Electronics and Applications	Analysis, design, and application of special electronic devices and systems to industrial control, power, communications, and processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	578	Digital Filter Hardware Design	Hardware design of FIR and IIR filters, including adaptive filters, based on DSP chips. Develop new applications using DSP microprocessor systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior

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EET	579	Digital Image Communication	Image capture, transform, compression, storage, and transmission. Provides computer environment (software and hardware) to emphasize the practical aspect.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	501	Digital Signal Processing Applications	Applies DSP techniques to the design and analysis of digital filters. Solution of filtering problems using computer techniques.	N	LEC	N	OPT	College of Tech & Innovation	INACTIVE - Department of Electronic Systems	3.		
EGR	101	Introduction to Engineering Design I	Introduces engineering as a profession, critical thinking in engineering design and modeling, team dynamics, engineering communication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
EGR	102	Introduction to Engineering Design II	Development and experimental verification of engineering models, engineering design, data acquisition, critical analysis of data, introduction to CADD, engineering communications.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: EGR 101 and MAT 170 with D or better; Pre or Co-requisite: ENG 101 (or ENG 105, 107 or 111) with D or better if completed
EGR	126	Engineering Applications of MATLAB	Using MATLAB to solve engineering problems; problem solving; computational and programming uses of MATLAB.	N	STO	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better
EGR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	201	Fall Multidisciplinary Project	Design, professionalism, and engineering practice developed in a multidisciplinary project setting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: APM 270 and EGR 102 with D or better
EGR	202	Spring Multidisciplinary Project	Design, problem solving, and engineering practice developed in a multidisciplinary project setting. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: APM 270 and EGR 102 with D or better
EGR	220	Computer Hardware for Engineers	Computer architecture, types of memory, operating systems and interrupts, buses and multiplexing, error detection and correction, Internet, the Web, encryption.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better or currently enrolled
EGR	221	Engineering Mechanics: Statics	Introduces the concepts of force, moment, and their relationships to the static equilibrium of a physical object.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and EGR 102 with D or better
EGR	222	Mechanics of Materials	Behavior of solid bodies subjected to loading. Stresses, strains, and displacements in bodies Analysis and design in solid mechanics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and EGR 102 with D or better
EGR	223	Engineering Thermodynamics	Heat; conservation of energy; first and second laws of thermodynamics; open and closed systems; entropy, enthalpy, and internal energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and CHM 113 with D or better
EGR	224	Engineering Materials Selection	Methods of selecting materials for specific applications based on mechanical loading, electrical, thermal, and environmental constraints.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102, APM 270 and PHY 121 with D or better
EGR	225	Instrumentation I	Introduces instrumentation systems and components, including transducers, associated electronics, and data acquisition and analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 and EGR 102 with D or better
EGR	226	Engineering Applications of LabView	Uses LabView to solve engineering problems; problem solving, data acquisition, and control using LabView.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better or currently enrolled
EGR	227	Manufacturing Processes I	Overview of manufacturing processes, including operating principles, process selection, and production economics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102 with D or better
EGR	229	Engineering Ethics and Professionalism	Case studies in engineering ethics and professionalism.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 101 and ENG 101 with D or better
EGR	230	Fluid Mechanics	Fluid properties, fluid statics, fluid continuum systems, control volumes, boundary control surfaces, energy and momentum, hydraulics, pipes, open channels, turbomachines.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 221 with D or better
EGR	231	Engineering Mechanics: Dynamics	Rectilinear and planar motions of a particle and their relationships to the forces on it.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 with D or better
EGR	234	Structure and Properties of Engineering Materials	Relationships among material structure, processing, and properties. Mechanical, electrical, and magnetic properties. Corrosion.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: CHM 113 and MAT 170 with D or better
EGR	235	Instrumentation II	Frequency domain analysis of instrumentation systems and components, including transducers, associated electronics, and data acquisition and analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 225 and APM 270 with D or better
EGR	238	Feedback Control	Introduces modeling, analysis, and design of feedback control systems, including block diagrams, transient responses, and linear controllers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 with D or better
EGR	239	Engineering Economics	Economic dimensions in the evaluation of engineering alternatives. Income and cash flow. Time value of money. Cost/benefit analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102 and MAT 170 with D or better
EGR	280	Engineering Statistics	Applications-oriented introduction to statistics with computer-based experience using statistical software for formulating and solving engineering problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	CS	Pre-requisites: APM 270 with D or better
EGR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	301	Fall Concentration Project	Design, communication, and critical thinking developed in a project setting based on selected concentration. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
EGR	302	Spring Concentration Project	Design, engineering practice, and communication developed in a project setting based on selected concentration. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 201 and EGR 202 with D or better or currently enrolled; Co-requisites: EGR 332 or EGR 342
EGR	331	Electrical Implementation Technology	Conducting electrical projects using the facilities of the ASU Polytechnic campus. Juniors majoring in engineering or technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 or EET 301 with D or better

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EGR	332	Electrical Power and Heat	Generation and distribution of electrical power within localized systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	333	Distributed Circuits and Systems	Analysis and modeling of the generation and distribution of electrical signals and energy across distributed systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	335	Instrumentation III	Noise in electrical systems and associated limits on instrumentation and measurement.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better
EGR	336	Introduction to Mechatronics	Pneumatic, hydraulic, mechanical, and electrical actuators. Models of mechatronic systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 231, EGR 235 and EGR 238 with D or better
EGR	337	Remote Sensing and Imaging Principles	Remote sensing and imaging principles with a focus on land development applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: CHM 113, EGR 280, and MAT 272 with a grade of D or better, or currently enrolled
EGR	339	Fabrication of Electrical Systems	Overview of electrical fabrication techniques; design cycle time, cost, quality, reliability, product life cycle, and testing; programmable versus hard-wired implementation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	340	Engineering Thermo-Fluids I	First and second laws of thermodynamics, systems, processes, equations of state, property tables. Fluid statics, conservation of momentum, Bernoulli's equation, applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: PHY 111 or PHY 121 with D or better; APM 266, APM 271, MAT 266 or MAT 271 with D or better
EGR	341	Testing and Failure Prevention	Testing behavior of engineering materials under various loads. Evaluation of causes, mechanisms, and prevention of failure in structures and components.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 221, EGR 222 and EGR 231 with D or better
EGR	342	Computer-Aided Engineering	Theory and use of computer tools for high-level engineering analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: APM 271, CHM 113, EGR 221, EGR 222 and EGR 231 with D or better
EGR	343	Mechanics of Solid Materials	Studies strength and physical performance, such as deformations and load-carrying capacity, of natural and artificial solid structures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 221 and EGR 222 with D or better
EGR	346	Engineering Design	Applies fundamentals of mechanics in analysis and synthesis of machine components and systems, with emphasis on stress and failure.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
EGR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	401	Engineering Capstone Project I	First half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier course work. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: EGR 301 and EGR 302 with D or better or currently enrolled
EGR	402	Engineering Capstone Project II	Second half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier course work. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisite: EGR 401 with D or better taken within one previous term or currently enrolled
EGR	432	Engineering Thermo-Fluids II	Thermodynamic analysis of mixtures and power cycles. Design and analysis of fluid systems, conduction heat transfer, and introduction to convection and radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Students who have credit in MET 432, may not enroll in EGR 432
EGR	434	Digital Signal Processing: Media Standards	Introduces signal compression and reconstruction; audio, image, and video media standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	435	Digital Signal Processing: Filtering	Introduces digital filtering, FIR and IIR filters, filter design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	436	Wireless Communication Principles	Introduces wireless digital communications systems; overview of important concepts, including coding, modulation, equalization, decoding, and multiple access protocols.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	437	Wireless Communication Protocols	Surveys commercially important digital wireless protocols.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	438	Electromagnetic Compatibility and Interference	Electromagnetic compatibility and interference. Grounding and shielding techniques. Cables, connectors, and leads. Regulations and standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better; PHY 331 with D or better
EGR	445	Mechanical Engineering Systems	Design and modeling of multicomponent electromechanical systems. Applications of computers, controllers, electronics using system hardware and software development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 301 or EGR 302 with D or better; EGR 238 with D or better
EGR	492	Honors Directed Study		N	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-6		
EGR	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering	1-6	L	Pre-requisites: Must be an Honors student
EGR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1.		
ELL	501	Multicultural Education	Examines the multicultural debate as a profound ideological struggle over the values of American culture.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	505	Language Minority Education	Historical, philosophical, theoretical, pedagogical, and legal foundations of language minority education in the United States. Credit is allowed for only ELL 505 or 405.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	510	Linguistics: First- and Second-Language Acquisition and Use	Examines current theories of first- and second-language acquisition and use and their application to ELL pedagogical contexts. Credit is allowed for only ELL 510 or 410.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	515	Structured English Immersion (SEI) Methods	Addresses the role of language and culture in teaching, program types, and specific SEI strategies for teaching English Language Learners (ELLs). Credit is allowed for only ELL 515 or 415.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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ELL	515	Structured English Immersion (SEI) Methods	Addresses the role of language and culture in teaching, program types, and specific SEI strategies for teaching English Language Learners (ELLs). Credit is allowed for only ELL 515 or 415.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	516	Advanced SEI Methods for Ells	More fully prepares teachers for linguistically diverse classrooms in which there are students learning through SEI methodology. Credit is allowed for only ELL 516 or 416.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	517	SEI Methods for Middle/High Schools	Introduces middle and high school teachers to Structured English Immersion methods for English Language Learners. Focuses on integration with academic content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 517 or 417.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	518	Advanced SEI Methods for Middle/High Schools	Provides middle/high school teachers with advanced training in using Structured English Immersion methods for English Language Learners in content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 518 or 418.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	520	Literacy Methods for English Language Learners (ELLs)	Teaching reading and writing to English Language Learners (ELLs) with emphasis on integrated curriculum and literature-based instruction. Credit is allowed for only ELL 520 or 420.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	525	Assessment and Evaluation for English Language Learners (ELLs)	Discusses assessment methods for English Language Learners (ELLs) in the K-12 classroom through psychometric and sociocultural models of assessment. Credit is allowed for only ELL 525 or 425.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	526	Advanced SEI Methods for Administrators	Provides current and future school administrators the foundations and skills necessary to plan, implement, and evaluate programs designed for English Language Learners in pre-K through 12th grade school settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	530	Community and Parental Involvement in Language Minority Education	Analyzes home-school collaboration using historical, educational, psychological, ethnic-social diversity, and sociological perspectives.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	535	Computer-assisted Language Learning (CALL) for English Language Learners (ELLs)	Examines current theories and practices surrounding the feasibility and efficacy of employing computer technology in ELL instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ELL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
ELL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
ELL	405	Language Minority Education	Historical, philosophical, theoretical, pedagogical, and legal foundations of language minority education in the United States. Credit is allowed for only ELL 405 or 505.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	410	Linguistics: First - and Second-Language Acquisition and Use	Examines current theories of first- and second-language acquisition and use and their application to ELL pedagogical contexts. Credit is allowed for only ELL 410 or 510.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	415	Structured English Immersion (SEI) Methods	Prepares preservice teachers for linguistically diverse classrooms in which there are English Language Learners (ELLs) learning through Structured English Immersion (SEI) methodology. Focuses primarily on SEI strategies. Credit is allowed for only ELL 415 or 515.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	416	Advanced SEI Methods for ELLs	More fully prepares teachers for linguistically diverse classrooms in which there are students learning through SEI methodology. Credit is allowed for only ELL 416 or 516.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	417	SEI Methods for Middle/High Schools	Introduces middle and high school teachers to Structured English Immersion methods for English Language Learners. Focuses on SEI strategies in content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 417 or 517.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	418	Advanced SEI Methods for Middle/High Schools	Provides future middle/high school teachers with advanced preparation in using Structured English Immersion methods for English Language Learners in content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 418 or 518.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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ELL	420	Literacy Methods for English Language Learners (ELLs)	Teaching reading and writing to English Language Learners (ELLs) with emphasis on integrated curriculum and literature-based instruction. Credit is allowed for only ELL 420 or 520.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	425	Assessment and Evaluation for English Language Learners (ELLs)	Discusses assessment methods for English Language Learners (ELLs) in the K-12 classroom through psychometric and sociocultural models of assessment. Credit is allowed for only ELL 425 or 525.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	430	Community and Parental Involvement in Language Minority Education	Introduces home-school collaboration using historical, educational, psychological, ethnic-social diversity, and sociological perspectives.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	445	Practicum with English Language Learners (ELLs)	Pairs students seeking a full ESL endorsement with full ESL-endorsed classroom teachers. Addresses areas including second language acquisition and development, assessment, and pedagogy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ELL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EN	106	Lit Apprec		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of English	3.		
EN	584	Internship		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of English	3.		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 8-10 OR have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: TOEFL score of 560 or above OR have completed WAC 107 with a grade of A, B, C or Y or be currently enrolled
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	111	Learning Community Composition I	Discovering, researching, and developing ideas in relation to the writer's purpose, subject, and audience. Only taught within a Liberal Arts (CLAS) Learning Community.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 8-10 OR have completed WAC 101 with a grade of A, B, C or Y
ENG	112	Learning Community Composition II	Critical reading and writing; emphasis on rhetorical strategies of argumentation. Requires research paper. Only taught within a CLAS Learning Community.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 101 or ENG 111 with C or better
ENG	114	English Grammar and Usage	Fundamentals of English grammar (word and phrase structure) and of English usage (punctuation, grammatical correctness).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	197	Medical Writing	For students in the MedStart summer program. Designed to further critical thinking, reading, and writing skills for students interested in a medical career.	N	LEL	N	GNA	Liberal Arts and Sciences	Department of English	3.		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Literature, Writing and Film (BA, minor, certificate, and BIS), Pre Sec Educ- English, Sec Ed-English, English (Linguistics or Literature or Creative Writing) students; ENG 102, ENG 105 or ENG 108 with a C or better
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H & G	
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	210	Introduction to Creative Writing	Beginning writing of poetry, fiction, drama, or mixed genre. Separate sections for each genre. Each genre may be taken once.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		

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ENG	215	Strategies of Academic Writing	Advanced course in techniques of analyzing and writing academic expository prose. Writing is research based.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	217	Writing Reflective Essays	Critical examination of the influences discourse has on formation of identity; narrative analyses of self and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	218	Writing About Literature	Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	245	Popular Culture Issues	Selected topics in various forms of popular culture related to written texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	1-6		
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	302	Business Writing	Advanced interdisciplinary writing course designed to improve the workplace writing competence of W. P. Carey School of Business professional and preprofessional students. Lecture, discussion, case studies, cooperative learning, interactive, Internet, student presentations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled
ENG	303	Classical Backgrounds of English Literature	Readings of Greek and Latin literature in translation as they relate to literature in English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	307	Writing Science Fiction	Writing science fiction, primarily the short story.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	310	Intermediate Creative Writing	Separate sections for fiction and poetry. May be taken once for poetry, once for fiction.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 210 with a grade of D or greater or be currently enrolled
ENG	312	English in its Social Setting	Introduces the sociolinguistic study of the English language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU or SB	
ENG	313	Phonology and Morphology	Introduces English morphology, phonology, etymology, and phonetic aspects of rhyme, alliteration, and other sound-based literary devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	314	Modern Grammar	Modern descriptive models of English grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	315	Medieval Literature in Translation	Medieval literature (insular and continental) in translation, from Beowulf to Malory (excluding Chaucer), emphasizing cultural and intellectual backgrounds.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	321	Introduction to Shakespeare	Shakespeare's major comedies, histories, and tragedies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	325	Restoration and the 18th Century	Writers and movements in nondramatic literature of the restoration and early 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	326	English Drama 1660-1800	English drama 1660-1800.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	328	The Novel to Jane Austen	From origins of prose fiction through the 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	
ENG	329	19th-Century British Fiction	Includes such authors as Austen, Dickens, Eliot, and Conrad.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	330	19th-Century British Poetry	Romantic and Victorian poets studied in context.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	331	American Drama	Major works in the development of American drama from its beginnings to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	
ENG	335	American Poetry	Themes and developments in American poetry.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	337	Major American Novelss	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	342	20th-Century British and Irish Literature	Major works in the development of literature since 1900, studied in their historical and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	345	Selected Authors or Issues	Different topics may be offered. Film topics with lab may carry 4 credits. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3-4		
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102 or 105 completed with a grade of C or better or be currently enrolled
ENG	353	African American Literature: Beginnings through the Harlem Renaissance	Historical survey of African American literary traditions and cultural contexts from slavery through the 1930s.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	
ENG	354	African American Literature: Harlem Renaissance to the Present	Historical survey of African American literary traditions and cultural contexts from the 1920s to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
ENG	355	European Dramatic Traditions	Development of European drama since Aeschylus.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	

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ENG	356	The Bible as Literature	Readings in the Jewish and Christian Scriptures in modern translation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	359	American Indian Literatures	Selected oral traditions and contemporary works by American Indian authors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisite: completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108. May not enroll in ENG 363 if you have credit in TCL 363
ENG	364	Women and Literature	Approaches to issues of gender and representation in literature by and about women.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	365	History of Film	Development of motion pictures.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3-4	HU	
ENG	369	Science Fiction Studies	Development of science fiction and fantasy literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	372	Document Production	Introduces document design and production. Practice in critique and in writing the content of publications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	374	Technical Editing	Fundamentals of editing technical and professional materials. Role of editors in analyzing, revising, and polishing manuscripts. Successful writer-editor dialogues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	385	Career Development for English Majors	Theoretical and practical aspects of career planning related to skills and interests developed in English studies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	400	History of Literary Criticism	Major critics and critical traditions in the Western world.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & H	
ENG	401	Topics in Critical Theory	Major critical schools of recent decades--postcolonialist, psychoanalytic, deconstructionist, feminist, new historicist.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	409	Advanced Screenwriting	Utilizing the elements of storytelling, students outline, develop, and write a feature-length screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102(or ENG 105/108); FMS 100; FMS 309 with grades of C or better, or currently enrolled
ENG	411	Advanced Creative Writing	Poetry, fiction, and drama for experienced writers, emphasizing individual style. Each genre may be taken once.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 310 with a grade of D or greater or be currently enrolled
ENG	412	Creative Nonfiction	Lectures, discussion, and criticism concerning techniques of writing creative nonfiction for publication.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 310 or ENG 411 with a grade of D or greater or be currently enrolled
ENG	413	History of English Language	Development of English from the earliest times to the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	414	Studies in Linguistics	Relationship of linguistics to literature, gender, power, and other social issues.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	415	Topics in Medieval Literature and Culture	Interdisciplinary approach to medieval literature, emphasizing cultural and historical context.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	416	Chaucer in Middle English	Yearly alternate between Chaucer's The Canterbury Tales and Troilus and Criseyde. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	418	Renaissance Literature	Selected topics, authors, contexts, and themes in Renaissance literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	419	English Literature in the Early 17th Century	Topics, authors, and themes in English literature, 1603-1660.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	421	Shakespeare	A selection of Shakespeare's works in different genres.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	422	Studies in Shakespeare	Topics for close examination in selected dramatic and/or nondramatic works.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 421 with a grade of D or greater or be currently enrolled
ENG	423	Renaissance Drama	Topics, authors, and themes in the drama of the Tudor and early Stuart periods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	424	Milton	Selected prose and poetry, emphasizing Paradise Lost, Paradise Regained, and Samson Agonistes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	425	Studies in Romanticism	Romanticism in continental, British, and American literature and culture.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 222 or 241 with a grade of D or greater or be currently enrolled
ENG	427	Studies in 18th-Century Literature and Culture	Literary, social, and cultural issues of the period studied in an interdisciplinary format. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 or 222 with a grade of D or greater or be currently enrolled
ENG	429	Studies in European Literature and Culture	Literary, cultural, and historical issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	430	Studies in Victorian Literature and Culture	Literary, social, and cultural issues of the period studied in an interdisciplinary format. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 222 with a grade of D or greater or be currently enrolled
ENG	434	Studies in the Literature and Culture of the Americas	Literature and culture of North America, South America, and the Caribbean. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU & C	Pre-requisites: Must have completed ENG 241 or 242 with a grade of D or greater or be currently enrolled
ENG	436	Studies in Anglophone Literature and Culture	Literary, social, and cultural issues of English-speaking former colonial territories. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 222 or 242 with a grade of D or greater or be currently enrolled
ENG	440	Studies in American Literature and Culture	Various genres in their literary, political, theoretical, and historical contexts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 241 or 242 with a grade of D or greater or be currently enrolled
ENG	442	Studies in 20th-Century British and Irish Literature and Culture	Major literary genres (novel, poetry, and drama) in their cultural and historical contexts. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 222 with a grade of D or greater or be currently enrolled

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ENG	444	Studies in American Romanticism	Fiction, poetry, and essays of such 19th-century authors as Hawthorne, Emerson, Melville, Thoreau, Fuller, Whitman, and Dickinson. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 241 with a grade of D or greater or be currently enrolled
ENG	445	Studies in American Realism	Writers and influences that shaped the development of literary realism. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 242 with a grade of D or greater or be currently enrolled
ENG	448	Studies in Irish Literature and Culture	Themes and problems pertaining to Irish literature, film, and social and cultural history.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 222 with a grade of D or greater or be currently enrolled
ENG	452	Studies in the Novel	May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221, 222, 241, or 242 with a grade of D or greater or be currently enrolled
ENG	453	Studies in the American Novel	Poetics and politics of the novel, 18th through 21st centuries. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 241 or 242 with a grade of D or greater or be currently enrolled
ENG	457	Studies in American Poetry	May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 241 or 242 with a grade of D or greater or be currently enrolled
ENG	459	Studies in African American/Caribbean Literatures	Studies in African American or Caribbean literatures according to genre, period, theory, or selected authors. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	461	Studies in Women and Literature	Advanced topics in literature by or about women.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	465	Studies in Film	Advanced topics in cinema.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3-4		
ENG	469	Science and Literature	Historical and theoretical links between science and literature, from Francis Bacon to the present, examined in cultural context. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	470	Symbols and Archetypes in Children's Literature	Various critical approaches and recurring themes studied in relation to classical and contemporary children's literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	471	Literature for Young Adults	Prose and poetry that meet the interests and capabilities of junior high and high school students. Stresses recent literature. A passing grade of at least "C" (2.00) required before students are permitted to student teach in English.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	472	Rhetorical Studies	Developments in theory and practice of major rhetorical inquiries.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105, or 108 with a grade of C or greater or be currently enrolled
ENG	476	Studies in Folklore	Surveys the history, genres, and dynamics of folklore, with emphasis on oral traditions.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	478	Studies in Modernism	Cultural, historical, and literary problems in American and European modernism.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	479	Studies in Postmodernism	Literary, social, and cultural issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	480	Methods of Teaching English: Composition	Methods of instruction, organization, and presentation of appropriate content in the teaching of composition and other writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	482	Methods of Teaching English: Language	Developing the language skills of native and non-native speakers through a process approach and advanced writing workshops in junior and senior high schools.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	Department of English	1-6		Pre-requisites: Must be an Honors student
ENG	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	Department of English	1-6	L	Pre-requisites: Must be an Honors student
ENG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	495	Literary Forms: Theory and Practice	Types, history, analysis of traditional forms and contemporary adaptations. Separate sections for poetry, fiction. Each genre may be taken once.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 411 with C better
ENG	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-6		Pre-requisites: Must be an Honors student
ENG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-7		
ENG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-3		
ENG	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	502	Contemporary Critical Theories	Studies the principles and techniques of contemporary theory and criticism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	503	Comparative Literature, Theory, and Practice	Problems, methods, and principles of comparative analysis, illustrated by selected critical essays and literary/cultural texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	504	Cross-Cultural Studies	Theoretical and analytical issues for comparative research across distinct cultural regions and traditions. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		

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ENG	505	Writing Workshops	Intense poetry and fiction workshops for experienced writers, emphasizing individual style. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	506	Methods and Issues in Teaching Language	Developing the language skills of native and non-native speakers through a process approach and advanced writing workshops in junior and senior high schools.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	507	Methods and Issues in Teaching Composition	Up-to-date theory, practice, and implementation of secondary writing instruction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	517	History of the English Language	Surveys the development of the English language, with an emphasis on major linguistic transformations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	530	Old English	Study of Old English grammar, syntax, and phonology, with selected readings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	531	Old English Literature	Intensive literary, linguistic, and cultural study of Old English literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	532	Middle English Dialects	Study of the principal dialects of Middle English, with selected readings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	533	Studies in Medieval Literature	Selected topics in English literature from the 11th through the 15th centuries. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	534	Studies in Renaissance Literature	Selected topics and literary works studied in the contexts of English Renaissance culture. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	535	Studies in 18th- and 19th-Century British Literature	Selected topics, issues, figures, and genres in British literature and culture of the 18th and 19th centuries. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	536	Studies in American Literature before 1900	Selected topics, issues, figures, and genres in 17th-, 18th-, and 19th-century American literature, including the literature of conquest and contact. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	537	Studies in Modern and Contemporary British Literature	Selected topics, issues, figures, and genres in British literature and culture after 1900. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	538	Studies in Modern and Contemporary American Literature	Selected topics, issues, figures, and genres in American literature and culture after 1900. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	539	Studies in Modernist and Postmodernist Literature and Theory	Selected topics in Modernist and Postmodernist studies. May include literary and theoretical texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	540	Teaching Young Adult Literature	Issues and new approaches in teaching contemporary literature in high school.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	542	Studies in North American Ethnic Literatures	Selected works studied in their cultural contexts from authors representing ethnic experiences in the United States. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	543	Studies in Anglophone Literatures	Selected topics, texts, periods, literary trends in works by world authors writing in English. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	544	Studies in Colonial and Postcolonial Literature	Selected topics, periods, theories, and figures in works by authors representing colonial and postcolonial regions and/or experiences. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	545	Studies in Women's Literatures	Selected topics, texts, periods, and figures in works written by and/or about women, studied in their cultural contexts. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	546	Gender Studies	Selected topics, periods, and themes in the study of gender and sexuality, including attention to theoretical issues. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	550	Translation	Surveys theories and practices of translation into English. Considers target, audience and market. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	551	Rhetorical Traditions	Examines rhetorical traditions spanning ancient to contemporary rhetorics. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	552	Composition Studies	Selected topics in the history and theories of composition. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	553	Technologies of Writing	Critical study and cultural analysis of information technologies and their effects on various writing practices. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	554	Rhetorics of Race, Class, and Gender	Study of interdependent relationships of race, class, and gender in rhetorical constructions of self and community. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	556	Theories of Literacy	Examines various theories of literacy, their embedded values and assumptions, and their influences on academic scholarship and pedagogy. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	560	Genre Studies	Critical analysis and study of works from a single genre or comparative analysis and study of multiple genres. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	561	Film Studies	Analysis and study of film genres, cinematic techniques, and problems of interpretation and representation. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		

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ENG	562	forms of Poetry	Types, history, criticism, and schools of theory of metrical form. Analyzes lyric, narrative, and dramatic poetry. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	563	Forms of Fiction	Types, history, criticism, and schools of theory in the forms of fiction. Analyzes narrative and dramatic structure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of English	1-12		
ENG	602	Advanced Studies in Theory and/or Criticism	Seminar courses on the principles, strategies, and applications of critical, cultural, and/or literary theory and/or criticism.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	603	Advanced Studies in Comparative Literature	Seminar courses on the problems, methods, and principles of comparative analysis. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	604	Interdisciplinary Cultural Studies	Seminar courses on work from literature, anthropology, and/or other disciplines, with an emphasis on cultural influences and functions. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	606	Advanced Studies in English Education	Current research, issues, and trends in English education. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	632	Advanced Studies in Medieval and Renaissance Literature and Culture	Seminar in works of the Medieval or Renaissance periods, studied in their cultural contexts. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	635	Advanced Studies in British Literature	Seminar courses on works produced in or about England, Scotland, and Wales, studied in their cultural contexts. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	636	Advanced Studies in American Literature	Seminar courses on works produced in or about the United States, studied in their cultural contexts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	639	Advanced Studies in Modernism and Postmodernism	Seminar courses on topics in Modernist and Postmodernist studies. May include literary and theoretical texts. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	642	Advanced Studies in Ethnic, Anglophone, or Post-Colonial Literatures	Seminar courses that consider the influence of cultural or geopolitical developments on the production and circulation of texts. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	645	Advanced Studies in Gender Issues	Seminar courses that consider the influence of gender on the production and circulation of texts. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	651	Advanced Studies in History and Theories of Rhetoric	Selected topics in the history and/or theory of rhetoric.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	652	Advanced Composition Studies	Selected topics on particular composition theories, practices, pedagogies, and figures. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	654	Advanced Studies in Rhetoric, Writing, Technology, and Culture	Advanced study of theoretical, methodological, and pedagogical issues concerning the interrelationships among rhetoric, culture, writing, and writing technologies. May be repeated for credit when topics vary.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		

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ENG	655	Disciplinary Discourses	Investigation of professional and disciplinary issues related to English studies. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	656	Studies in Cross-Cultural Discourse	Theoretical and methodological issues in the comparative study of discourses between cultures and communities of practice. May be repeated for credit when topics vary.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	661	Advanced Studies in Film	Seminar courses on topics, genres, and figures in film studies, including technical and theoretical issues. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	662	Poetic Genres	Creative writing courses in the long poem, the erotic image, death and transfiguration, reading and influence, and others. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	663	Fiction Genres	Creative writing courses in time and fiction, gothic fiction, myth in fiction, science fiction, and others. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	664	Mixed Genres	Creative writing courses in the prose poem, magical realism, the literature of obsession. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	665	Creative Methods	Creative writing courses in theory of the novel, poetics, story into film, and others. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	667	Issues in the Writing Professions	Focuses on career preparation, resources, the role of writing in the community, creative writing, and the Internet. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-15		
ENG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of English	1-15		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 8-10 OR have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: TOEFL score of 560 or above OR have completed WAC 107 with a grade of A, B, C or Y or be currently enrolled
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: Literature, Writing and Film (BA, minor, certificate, and BIS), Pre Sec Educ- English, Sec Ed-English, English (Linguistics or Literature or Creative Writing) students; ENG 102, ENG 105 or ENG 108 with a C or better
ENG	210	Introduction to Creative Writing	Beginning writing of poetry, fiction, drama, or mixed genre. Separate sections for each genre. Each genre may be taken once.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	221-W	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisites: Must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled OR be an Applied Science student
ENG	305	Classical and Biblical Backgrounds to Literature	Selected readings from the Bible and Greek and Latin literature in translation, emphasizing ideas, forms, and myths related to the development of English literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	311	Persuasive Writing	Advanced writing course that focuses on persuasive writing for diverse audiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	317	Cross-Cultural Writing	Cultural differences and their impact on writing and/or their role in miscommunication and misinterpretation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	
ENG	323	Rhetoric and Grammar	Practical course taught in the computer lab. Emphasizes rhetorical strategies and grammar for writers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	337-W	Major American Novels	Novels from the 19th century to the present studied in their historical and cultural contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	353-W	African American Literature: Beginnings through the Harlem Renaissance	Focuses on the history of African-American literature through the Harlem Renaissance, as exemplified in selected slave narratives, poems, and fiction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	354-W	African American Literature: Harlem Renaissance to the Present	Examines the literary productions of African-Americans from the Harlem Renaissance (about 1920) to the present focusing on fiction, poetry, drama, and essays.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	359-W	American Indian Literature	Selected oral traditions of American Indians and their influences on contemporary Native American literary works.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
ENG	363-W	Chicano Literature	Development of Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	Pre-requisite: completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108. May not enroll in ENG 363 if you have credit in TCL 363
ENG	365	History of Film	Emphasizes American film, with some study of European film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	369-W	Science Fiction and Fantasy	Development of science fiction and fantasy literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	386	American Gothic	The development of modern American Gothic as a literary form from Poe to Oates. Emphasizes the short story.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	400	History of Literary Criticism	Major critics and critical traditions in the Western world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & H	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	412-W	Writing for Publication	Lectures and conferences concerning techniques of writing for publication.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	415-W	Medieval Literature	Medieval English and continental literature in translation, emphasizing cultural and intellectual backgrounds. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	418-W	European Renaissance Literature	Prose, poetry, and drama of Europe and England from 1492-1660 with an emphasis on cultural history.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	420	Multicultural Autobiographies	Examines the human experience via autobiographies and personal narratives. Multicultural, literary, and psychological perspectives on individual lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	421	Shakespeare	A selection of Shakespeare's works in different genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	423	Renaissance Drama	Topics, authors, and themes in the drama of the Tudor and early Stuart periods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
ENG	424	Milton	Selected prose and poetry, emphasizing Paradise Lost, Paradise Regained, and Samson Agonistes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	425-W	Romantic Poetry	Poetry of Wordsworth, Coleridge, Shelley, Keats, and Byron.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	431	Whitman and Dickinson	Evaluates the 19th-century American Literary Renaissance through the specialized examination of its poetry and authors in their historical context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	432	The American Renaissance	Novels, poetry, short fiction, and criticism of the major literary figures of the early to mid-nineteenth century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	433	Southern Writers	Analyzes Southern culture through the eyes of the region's novelists, short story writers, poets, filmmakers, photographers, and song writers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	437	The American Novel, 1900 - 1960	Developments in theory and practice of major novelists.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	438	American Novel Since 1960	Major novelists of the period. Developments in theory and practice.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	450	The British Novel	Focuses on the British novel from the 18th century to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	454	Gender and Literature	Focuses on the representation of gender in literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	455	Contemporary Women Writers	Critical examination of literature by contemporary women writers. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	460	Ethnic Women Writers	Concentrates on selected women writers of the U.S. who are Native American, African American, Hispanic, and Asian-American.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	462	Africana Literature	Focuses on the literature of the African Diaspora, including texts from the Caribbean, the Americas, and Africa. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	463	African-American Literature	Thematic and cultural study of African-American literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	476-W	Folklore in Everyday Life	Focuses on the discipline of folklore, the theories and methods related to the oral, material, and cultural practices of society.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU or SB) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	477	World Literature	Introduces world literature, mostly outside the United States and England.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	478-W	Modernist Literature	Focuses on the international nature of Modernist literature. Authors studied may include Proust, Kafka, Joyce, and Woolf.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	479-W	International Postmodern Literature	Focuses on the international nature of Postmodernist literature. Authors studied may include Rushdie, Garcia Marquez, and Toni Morrison.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	492	Honors Directed Study		N	RSC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	493	Honors Thesis		N	THE	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 8-10 OR have completed WAC 101 with a grade of A, B, C or Y
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 8-10 OR have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: TOEFL score of 560 or above OR have completed WAC 107 with a grade of A, B, C or Y or be currently enrolled
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisite: must have completed ENG101 or ENG107 with a C or greater in ENG101 or ENG107
ENG	114	English Grammar and Usage	Fundamentals of English grammar (word and phrase structure) and of English usage (punctuation, grammatical correctness).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Literature, Writing and Film (BA, minor, certificate, and BIS), Pre Sec Educ- English, Sec Ed-English, English (Linguistics or Literature or Creative Writing) students; ENG 102, ENG 105 or ENG 108 with a C or better
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	210	Introduction to Creative Writing	Beginning writing of poetry, fiction, drama, or mixed genre. Separate sections for each genre. Each genre may be taken once.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	210	Introduction to Creative Writing	Beginning writing of poetry, fiction, drama, or mixed genre. Separate sections for each genre. Each genre may be taken once.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENH	493	Honors Thesis		N	LEC	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
ENH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		Pre-requisites:Academic level:Senior; majors
ENH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
ENH	520	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENH	525	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
EPA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EPA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EPD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
EPD	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	710	Current Research in Design	Review and critical evaluation of contemporary literature and method in architecture, building science, interior design, industrial design, and landscape architecture. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		
EPD	712	Current Research in Planning	Review and critical evaluation of contemporary literature and method in environmental planning, landscape ecology, urban design, and urban and regional planning. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		
EPD	714	Current Research in History, Theory, and Criticism	Review and critical evaluation of contemporary literature and method in the theory and history of architecture, design, and planning. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		
EPD	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		

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EPD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-15		
EPD	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		
EPD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-15		
ESS	510	Urban Environments	Investigates major issues and themes on the urban environment, from urban sprawl to environmental justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	513	Institutions	Studies formal and informal institutional arrangements for the governance of natural resources using case studies, experiments, and formal models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	514	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ESS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		

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ESS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ESS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
EST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	200	Project Lab	Provides theoretical and practical overview of principles of measuring instruments and the main objective is to build good lab disciplines.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
EST	210	Circuit Analysis I	Parallel/Series circuits, ohm's law, network theorems, capacitors/inductors and transient analysis. Overview of electronic devices, BJTs, FETs, op-amps.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EST	310	Circuit Analysis II	Electronic device analysis and introduction to design. Power supplies, diode circuits, FETs, BJTs, op-amps. Emphasizes frequency response.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Tech Sci BAS/BS/NonDegree or Engr BSE/NonDegree AND earned D or greater in EET 208 or currently enrolled OR Must be Tech Sci MS/MSTECH/AppBIO or Engr MS/MSE/PHD student
EST	345	Planning and Delivering Engineering Projects	Project-based, hands-on course teaches team building, planning, soft skills, tracking progress, and powerful methods that deliver successful, on-time projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EST	370	Sensors	Overview of sensor technology, including mechanical, magnetic, radiation, thermal, chemical, and biological applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Must have received a D or better in EST 200 and EST 210
EST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	482	Industrial Practice: Internship/Co-Op	Specially assigned or approved activities in electronic industries or institutions. Requires report.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites: Must be Tech Sci BAS/BS/NonDegree or Engr BSE/NonDegree AND University Cumulative GPA is greater than or equal to 2.25 OR Must be Tech Sci MS/MSTECH or Engr MS/MSE/PHD student
EST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		

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EST	490	Electronics Project	Individual or small group projects in applied electronics; emphasizes lab practice or hardware solutions to practical problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites: Must be Tech Sci BAS/BS/NonDegree or Engr BSE/NonDegree AND University Cumulative GPA is greater than or equal to 2.25 OR Must be Tech Sci MS/MSTECH or Engr MS/MSE/PHD student
EST	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
EST	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
EST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Prerequisites: Must be in School of Technology AND have a Univ Cum GPA Greater than or equal to 2.25 OR must be in a Graduate program in School of Technology or Engineering & Applied Sci
EST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
EST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Must have an University Cum GPA of 3.00 or greater; Must be a Tech Science or Engineering senior OR a Graduate, NonDegree or Post Bacc student
EST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	372	Wireless Communication Systems	Components and signal processing for modern wireless communication systems, including major applications, problems, and new technologies.	N	LEL	N	OPT	College of Tech & Innovation	INACTIVE - Department of Electronic Systems	3.		Prerequisites: EST 310 with a grade of D or better
EST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	INACTIVE - Department of Electronic Systems	1-4		

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ETH	100	Introduction to Ethnic Studies	Undertakes an introductory comparative analysis of ethnic groups to understand cultural diversity within the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
ETH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	300	Principles of Ethnic Studies	Familiarizes students with a range of analytical and theoretical frameworks in the field of ethnic studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	C	
ETH	310	Research Methods in Ethnic, Racial, and First Nations Populations	Examines analytical tools and methodological approaches (ethnography, oral histories, digital-storytelling, information literacy) to study ethnic, racial, and first nations populations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
ETH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ETH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ETM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	301	Environmental Management	Focuses on knowledge and skills necessary to manage environmental programs. Perspectives include regulatory, individual, corporate, and consulting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	302	Water and Wastewater Treatment Technology	Explores the development of treatment technologies. Addresses regulatory standards. Emphasizes theory and practice of system design, lab analysis standards and procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	303	Environmental Regulations	Explores environmental laws, regulations, and directives. Addresses air, land, and water.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	360	Introduction to Emergency Management	Emergency management theories. Comprehensive emergency management. Mitigation, preparedness, response, and recovery. Post-disasters and policy formation. Current FEMA all-hazards approach.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	362	Managing Natural and Technological Disasters	Federal, state, and local responses to emergencies. Management of mass casualties, evacuation, sheltering, and terrorism; declaration of emergency procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	363	Computer Applications in Emergency Management	Explores specific computer programs that are currently in use for contingency planning, tracking chemical inventories, and response resources. Cross-listed as FSM 363. Credit is allowed for only ETM 363 or FSM 363.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	364	Toxicology and Biohazards in Emergency Management	Introduces poisons. Dose response routes of exposure and toxicokinetics. Diseases associated with natural disasters. Clinical presentation of treatments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	401	Hazardous Waste Management	Definition of hazardous waste, RCRA and CERCLA regulations, hazardous waste classification system. Overview of hazardous waste management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	402	Unit Treatment Technologies	Addresses various treatment technologies for contaminated air, water, and soil. Emphasizes design based upon medium, type of contamination, and concentration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	406	Environmental Chemistry	Examines reactions, transport, and fates of hazardous chemicals in water, soil, air, and living organisms.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	407	Occupational Hygiene	Overview of occupational health hazards, including recognition, evaluation, and control. Includes regulatory status and health standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	424-E	Comprehensive Emergency Management	Addresses theory and management techniques for emergency preparedness, including mitigation, preparedness, response, and recovery.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	424-M	Comprehensive Emergency Management	Addresses theory and management techniques for emergency preparedness, including mitigation, preparedness, response, and recovery.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	426-E	Environmental Issues	Explores the science and policy implications of contemporary problems that threaten the environment.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	426-M	Environmental Issues	Explores the science and policy implications of contemporary problems that threaten the environment.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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ETM	428	International Environmental Management	Emphasizes technological and economic pressures experienced by developing countries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	
ETM	460-E	National Incident Management System (NIMS)	Covers concepts, terminology, players, compliance requirements, including doctrine of National Incident Management System per HSPD-5. Discussion of National Response Plan.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	460-M	National Incident Management System (NIMS)	Covers concepts, terminology, players, compliance requirements, including doctrine of National Incident Management System per HSPD-5. Discussion of National Response Plan.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	461	Homeland Security	In-depth analysis of policies, procedures, and organizational structure for effective homeland security program. Covers all hazard/all risk philosophy. Credit is allowed for only ETM 461 or 561. Prerequisite: junior or senior standing or instructor approval.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	468	Simulation and Exercising	Requirements, planning, conduct, and critique of exercises related to emergency planning. Emphasizes realism using moulage and props.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	469	Terrorism Defense	Explores the background and evolution of terrorism. Presents specific tactics for preparation for and response to acts of terrorism.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	501	Principles of Hazardous Materials and Waste Management	Foundation for courses in curriculum. Topics include definitions of toxic and hazardous substances and wastes, RCRA classification, and OSHA criteria.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	502	Regulatory Framework for Toxic and Hazardous Substances	Examines federal, state, and local regulations for hazardous materials and wastes. Includes history and trends in regulatory development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	503	Principles of Toxicology	Interaction of chemicals with life and environment. Mechanisms of toxic action, dose-response relationships, toxicity testing models, predictive toxicology, and epidemiology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	504	Technology for Storage, Treatment, and Disposal of Hazardous Materials	Current and state-of-the-art technologies and future trends for storage, treatment, and disposal of hazardous materials and waste.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	505	Quantitative Analysis and Practical Laboratory Techniques	EPA methodologies for sampling and analysis of soils and water. Includes quality assurance and regulatory requirements. Lab is arranged off site.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	506	Chemistry of Hazardous Materials	Chemistry and toxicology of hazardous chemicals. Topics include proper handling, storage, transportation, and disposal.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	507	Industrial Hygiene	Emphasizes chemical hazards in industrial settings. Topics include recognizing and measuring hazards, control techniques, and regulatory standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	520	Sustainability and Sustainable Development	Explores broad field of environmental sustainability with U.S. and international coverage of green living practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	522	Air Pollution and Toxic Chemicals	Examines issues in the measurement analysis and control of toxic chemicals in air pollution.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	523	Soils and Groundwater Contamination	Theoretical and practical hydrogeology as it applies to cleaning up contamination. Investigative techniques, monitoring, risk assumptions, and assessment methodology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	524	Integrated Emergency Management	Theory and practice of comprehensive emergency management. Explores scope and function of Department of Homeland Security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	525	Risk Assessment for Hazardous Materials	Applies the risk assessment process in situations ranging from hazardous facilities regulation to toxic substances in the environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	526	Current Environmental Technology Issues	In-depth study of current issues in environmental technology facing both the private and public sectors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	527	Environmental/Resources Regulations Concepts	Develops environmental regulations from common law to statutory requirements. Emphasizes Superfund, hazardous materials, toxics, and liability contracts.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	528	International Environmental Management	Studies environmental issues and laws outside the U.S., impact of free trade, and multinational corporations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	540	International Environmental Law and Policy	Studies international environmental agreements, enforcement mechanisms, and the role of NGOs and international organizations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	560	Terrorism and Weapons of Mass Destruction	Historical evolution of terrorism and weapons of mass destruction. Analyzes current theories and mitigation, preparedness, and response tactics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	561	Homeland Security	Presents skills necessary to develop policies, strategies, programs, and organizational structure of an all hazards/all risk homeland security program. Credit is allowed for only ETM 561 or 461.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	567	Information Technology in Emergency Management	Provides theory and application of computer-based programs in emergency management and the use of various emergency modeling programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	571	The Foundations of Homeland Defense and Security	The enemy, policies, key players, and legal issues surrounding homeland defense and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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ETM	572	Multidisciplinary Approaches to Homeland Defense and Security: Collaborating to Integrate	Multidisciplinary approach to prevention, mitigation, preparedness, response, and recovery from incidents of national significance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	573	Strategic Planning and Organizational Imperatives in Homeland Defense and Security	Efforts to integrate and mobilize government and private sector resources for homeland defense and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	574	Special Topics in Homeland Defense and Security	Discusses contemporary challenges of asymmetric warfare, terrorism, and the virtual global battlespace, as well as emerging threats to homeland security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ETM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ETM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		
ETM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		
EXW	100	Introduction to Health and Wellness	Current concepts in health, exercise, and wellness. Emphasizes personal health, theories, attitudes, beliefs, and behaviors.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	
EXW	105	Physical Activity Instruction: Beginning	Beginning instruction in a variety of physical activities such as aerobics, aquatics, racquet sports, physical conditioning, and golf. Y grade only. May be repeated for credit. 2 hours per week. fee	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
EXW	205	Physical Activity Instruction: Intermediate	Intermediate-level instruction in a variety of physical activities. Continuation of EXW 105. Y grade only. May be repeated for credit. 2 hours per week. fee	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Must have completed EXW 105 with a C or greater
EXW	212	Instructional Competency Laboratory	Methods of instructing and leading fitness activities including aerobic, resistance, and flexibility activities. May be repeated for credit.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Must be a Exercise Wellness student
EXW	215	Physical Activity and Healthy Lifestyles	Applies principles of physical activity to personal fitness testing and program planning for people of all ages. Telecampus course. Not open to Exercise and Wellness majors or to students with credit in EXW 325.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Non-EXW students; Credit is allowed for only EXW 215 or EXW 325
EXW	300	Foundations of Exercise and Wellness	Analysis of research in various disciplines that contribute to health promotion and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	
EXW	301	Concepts of Fitness and Wellness	Guidelines for achieving health benefits of physical activity and other healthy lifestyles. Telecampus course. Not open to Exercise and Wellness majors or to students with credit in EXW 325.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Non-EXW students; Students may not enroll for EXW 301 who have received a D or better in EXW 325
EXW	302	Fundamentals of Wellness	Overview of fundamental health, exercise and wellness concepts. Emphasizes personal wellness assessment and application.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	
EXW	305	Physical Activity Instruction: Advanced	Advanced-level instruction in a variety of physical activities. Continuation of EXW 105. May be repeated for credit. Y grade only. 2 hours per week. fee	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	310	Computer Skills and Technology for Exercise and Wellness	Applies computer technology to principles of social marketing, tailored communication, e-health consumerism, and statistical analysis.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	CS	Pre-requisites: Must be a Exercise Wellness student; must have completed MAT114, MAT117, MAT119, MAT142 or MAT170 with a C or greater
EXW	311	Special Populations in Exercise and Wellness	Introduces the challenged population and surveys the agencies that work with special populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	315	Physiological Foundations of Movement	Studies human movement with emphasis on physiological function of the body in response to physical activity and fitness training. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: BIO 201 and BIO 202 with C or better
EXW	320	Program Development and Leadership	Principles of planning, organizing, promoting, and leading fitness and wellness programs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	325	Fitness for Life	Physical fitness and benefits of exercise with emphasis on self-evaluation and personalized program planning for a lifetime. Not open to students with credit in EXW 215 or 301.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Students may not sign up for EXW 325 who have received a D or better in EXW 215 or EXW 301
EXW	330	Kinesiological Foundations of Movement	Study and consideration of human movement with emphasis on kinesiology principles and their application to movement and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: BIO 201 and BIO 202 with C or better
EXW	342	Health Behavior Change	Examines major theories of health behavioral change. Develops intervention strategies and techniques employed to facilitate health behavioral change.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed PGS 101 with a C or greater

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EXW	346	Health Promotion and Program Evaluation	Introduces and applies theory-based concepts and methods of health promotion and program evaluation.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: EXW 342 with C or better; Pre- or Co-requisites: EXW 300 and EXW 310 (with C or better if completed)
EXW	350	Substance Abuse and Addictive Behavior	Studies addictive substances, their pharmacology and effects. Psychosocial risk factors for, and consequences of, substance abuse.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	380	Body Image and Wellness	Explores body image in American culture from physical, psychological, historical, and societal perspectives.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed NTR 241 and PGS 101 with a C or greater
EXW	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	400	Stress Management for Wellness	Examines the stress response and management from a behavioral perspective as it pertains to individuals or groups.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed PGS 101 with a C or greater
EXW	420	Exercise Testing	Theoretical basis and practical application of pre-exercise screening, exercise testing, estimates of energy expenditure, and interpretation of results. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Must have completed EXW 315 with a C or greater
EXW	425	Exercise Prescription	Theoretical basis for and application of general principles of exercise prescription to various ages, fitness levels, and health states.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 320, EXW 330 and EXW 420 (or be co-enrolled in EXW 420) with a C or greater
EXW	442	Physical Activity in Health and Disease	Examines the role of physical activity and fitness in the development of morbidity and mortality throughout the human life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	
EXW	444	Epidemiology	Introduces epidemiological concepts and prepares the student to read, comprehend, and report epidemiological research.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 300, EXW 310 AND EXW 320 with a C or greater
EXW	450	Cultural and Social Issues in Exercise and Wellness	Examines contemporary sociocultural issues and social determinants of health and physical activity. Focuses on health disparities, obesity, and social stressors.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	(L or SB) & C	Pre-requisites: Must have completed PGS 101 and EXW 300 with a C or greater
EXW	460	Resistance Training Application and Theory	Fosters critical thinking as it applies to resistance training theory.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 315 with a C or greater
EXW	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	FLD	Y	GNA	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Must be an Exercise & Wellness student; must have completed EXW310, EXW320, EXW420 AND EXW425 with a C or greater
EXW	492	Honors Directed Study		N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
EXW	493	Honors Thesis		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
EXW	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		
EXW	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
EXW	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	501	Research Statistics	Statistical procedures; sampling techniques, hypothesis testing, and experimental designs as they relate to research publications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	505	Applied Exercise and Wellness Laboratory Techniques	Investigative techniques used in the applied exercise testing/prescription lab. Emphasizes cardiorespiratory assessment, energy balance, body composition, and electrocardiography. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	534	Sports and Fitness Conditioning	Bases of sports and fitness conditioning, including aerobic and anaerobic power, strength, flexibility, and analysis of conditioning components for sports and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	536	Physiological Aspects of Physical Activity and Chronic Disease	Role of physiological mechanisms associated with acute and long-term physical activity and its influence on chronic disease and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	538	Obesity, Exercise and Health	Critically examines scientific and medical evidence concerning obesity, exercise, and health across the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	540	Psychosocial Issues in Exercise and Wellness: Stress, Coping, and Resilience	Critically explores the impact of psychological and social factors on human wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	542	Health Promotion	Theory and research concerning fitness and wellness programs in nutrition, physical activity, smoking cessation, and stress management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	544	Fitness/Wellness Management	Development of the fitness/wellness industry. Planning, organizing, promoting, and managing fitness/wellness programs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		

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EXW	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	635	Physical Activity and Aging	Examines and discusses the theoretical and applied health-related research on physical activity and aging.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	640	Analysis of Variance for Exercise and Wellness	Analyzes variance methods with an emphasis on research measures of human performance.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	641	Qualitative Research Methods	Introductory overview of qualitative research methods frequently used in education and health. Emphasizes analysis of research and practical application.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	642	Exercise Epidemiology	Physical activity, exercise, and physical fitness and the development of chronic disease.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 500 and EXW 501 with a C or greater
EXW	643	Correlation/Regression/Multivariate Statistics	Graduate-level statistics course for PhD/master's students who will be doing research in the area of exercise and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	645	Biostatistics in Physical Activity, Nutrition, and Wellness	Introduces biostatistical methods in physical activity, nutrition, and health promotion.	N	LEL	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	701	Research Methods for Community-Based Interventions	Develops skills to design and conduct community-based research interventions, identify essential elements of program fidelity, analyze quasi-experimental research.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
EXW	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
FAS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Freshman Standing; Maximum 25 hours
FAS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	301	Introduction to Parenting	Integrated approach to understanding parenting and parent-child interactions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		SB
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		SB

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FAS	332	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, and responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	361	Research Methods	Methods of social science research, including the fundamental assumptions underlying research, critique, research design, data collection, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	Pre-requisites: SOC 101 (or SOC 301 or CDE 232) and SOC 390 (or equivalent) completed with D or better or currently enrolled. Credit is allowed for only FAS 361 or SOC 391
FAS	370	Family Ethnic and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
FAS	390	Supervised Research Experience	Practical, firsthand experience within current faculty research projects in family studies or child development. Y grade only; may be repeated for total of 6 hours.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
FAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	431	Parent-Adolescent Relationships	Dynamics of the relationships between parents and adolescents. Developmental characteristics of adolescence and the corresponding adult stage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	435	Advanced Marriage and Family Relationships	Recent research, issues, and trends relating to marriage and family interaction. Influence of family composition, physical environment, family patterns, and values on family dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
FAS	440	Fundamentals of Marriage and Family Therapy	Introduces the fundamental orientations of marriage and family therapy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisite: Must be an Honors student
FAS	493	Honors Thesis		N	RSC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
FAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	497	Honors Colloquium		N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
FAS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		
FAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
FAS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	531	Family Theory Development	Historical and current approaches to theory development, evaluation, and application in family studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	539	Research Issues in Family Interaction	Critical review of current and past research in the area of family dynamics. Emphasizes interactional processes within the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	570	Introduction to Marriage and Family Therapy	Introduces major marriage and family therapy orientations. Reviews history, theory, application, and outcome research for each orientation.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	571	Assessment in Marriage and Family Therapy	Assessment and outcome evaluation of couples and families involved in marital and family therapy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	572	Advanced Techniques in Marriage and Family Therapy	In-depth review of assumptions and advanced techniques associated with contemporary marriage and family therapy approaches.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	573	Dysfunctional Marriage and Family Relationships	Critical review of current theory and empirical evidence connecting marital and family interaction patterns with aberrant behavior.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	574	Family Theory for Marriage and Family Therapy	Examines the theoretical orientations within the family therapy field, including the evolution, premises, and assumptions of each.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	575	Applied Issues in Couples - Therapy	Examines issues unique to therapeutic work with couples, including lifespan transition, multicultural issues, divorce, parenting, and remarriage. Seminar. Enroll requirements: Pre-requisites: Admission into MAS-MFT program.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	576	Applied Issues in Human Development and Psychopathology for Marriage and Family Therapy	Recognition and diagnosis of maladaptive behavior according to DSM criteria across human development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FAS	577	Applied Issues in Child and Adolescent Development for Marriage and Family Therapy	Examines developmental factors that lead to disorders in children and adolescents, with an emphasis on a systemic framework.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	578	Applied Issues in Sexuality for Marriage and Family Therapy	Examines the major methods used to assess and treat sexual issues and the treatment of sexual disorders.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	579	Applied Research in Marriage and Family Therapy	Critical examination of research concepts, quantitative and qualitative research designs, and applicability in clinical settings.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	581	Professional Issues and Ethics in Marriage and Family Therapy	Examines legal and ethical concerns of marriage and family therapists, emphasizing licensing standards and the Code of Ethics.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
FAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
FAS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
FAS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
FAS	301-W	Introduction to Parenting	Integrated approach to understanding parenting and parent-child interactions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	

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FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	332-W	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
FAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
FAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
FAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	332	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, and responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	370	Family Ethnic and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
FIN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-3		
FIN	300	Fundamentals of Finance	Theory and problems in financial management of business enterprises.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA and 2.5 ASU business GPA; ACC 241. ECN 221 and ECN 212 with a grade of C or better.
FIN	301	Fundamentals of Finance	Introduces the basic concepts, principles, and tools of financial management.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status; ACC 240, ECN 112 and QBA 221 with C or better
FIN	302	Managerial Finance	Theories and techniques used for business decisions in working capital management, capital budgeting, financial control, and long-term financing.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W. P. Carey Finance major; ACC 240/241. ECN 221 and ECN 212 with a grade of C or better.
FIN	303	Honors Finance	Covers basic principles of finance, practical tools for financial decision making, and evaluation methods employed by the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Must be an Honors student; Must have ACC 241, ECN 211 or 213, ECN 212 or 214, ECN 221 and MAT 211 or 271 with a grade of C or better.
FIN	331	Financial Markets and Institutions	Analyzes financial markets and intermediaries. Theory of financial intermediation, interest rate theory, money and capital market instruments, and government regulation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 241 and ECN 221 with a grade of C or better.
FIN	361	Advanced Managerial Finance	Builds on FIN 302. Advanced material on capital budgeting, cost of capital, CAPM, asset valuation, capital structure, and financial policy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; must have completed FIN 302 or FIN 300 with a grade of C or greater or be currently enrolled.
FIN	380	Personal Financial Management	Dynamic analysis of personal financial planning, including time value of money, stock and bond investment, and retirement and estate planning.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Non-Finance student; Must have minimum 2.0 ASU cumulative GPA and minimum 56 earned hours, or be a non-degree seeking student
FIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: Non-Finance students; Minimum cumulative GPA of 2.00; Minimum 56 hours OR Non-degree seeking student
FIN	410	Investments	Strategies and mechanics of investing in stocks, bonds, and derivatives. Topics include investment selection, portfolio management, financial markets, and institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Management student with professional or conditional status OR Finance Mgt student; FIN 300 or 301 with C or better
FIN	411	International Finance	Explores the environmental challenges facing financial managers in global financial markets and develops tools and techniques to meet such challenges.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status OR Finance Mgt OR Int' Studies student; FIN 300 or 301 with C or better; GLB 301 with C or better

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FIN	412	Financial Management	In-depth extension of core finance course. Typical topics include financial planning/control, risk and valuation, capital budgeting.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status OR Finance Mgt student; FIN 300 or 301 with C or better; ACC 236 or 410 with C or better
FIN	421	Security Analysis and Portfolio Management	Security analysis theory and practice. Selection and management of financial asset portfolios. Securities markets and portfolio risk-return analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 303 or 361) with C or better
FIN	427	Derivative Financial Securities	Study of stock options, index options, convertible securities, financial futures, warrants, subscription rights, and arbitrage pricing theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; FIN 421 with C or better
FIN	431	Management of Financial Institutions	Asset/liability and capital management in financial institutions. Influence of market factors and regulatory agencies. Emphasizes commercial banks.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and 361 with C or better; Honors student in Finance: FIN 303 and FIN 331 with C or better
FIN	456	International Financial Management	Exchange rate determination, financial markets, managing multinational corporations, capital budgeting, and hedging currency risk exposure from an international perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.	G	Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and 361 with C or better; Honors student in Finance: FIN 303 and FIN 331 with C or better
FIN	461	Financial Cases and Modeling	Case-oriented capstone course in managerial finance. Contemporary issues of liquidity management, capital budgeting, capital structure, and financial strategy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.	L	Pre-requisites: W.P.Carey Finance BS student; FIN 421 with C or better
FIN	481	Honors Seminar in Finance	Honors course covering topics that include theory and applications concerning managerial finance, investments, and financial institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student with Honors status; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Finance	1-6		Pre-requisites: Must be an Honors student
FIN	493	Honors Thesis		N	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-6	L	Pre-requisites: Must be an Honors student
FIN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-6		
FIN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-7		Pre-requisites: W.P. Carey Finance students with professional status; FIN 331 and 361 with C or better; ACC 315 or 340 with C or better
FIN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEL	Y	Z1	W.P. Carey School of Business	Department of Finance	1-3		Pre-requisites: W.P. Carey Finance students with professional status
FIN	502	Managerial Finance	Develops analytical techniques and financial theories used to make optimal decisions in a corporate setting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	2-4		Pre-requisites: ACC 502 with C or better; ECN 501 with C or better
FIN	520	Financial Modeling	Demonstrates how Excel programming techniques can be used to model and manipulate financial data, as applied to equities, options on equities, and options on bonds.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	521	Investment Management	Valuation of equities and fixed income securities. Trading strategies and portfolio management. Performance evaluation. Trading mechanisms and market organization.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	525	Investment Strategies	Introduces theories and practices of the investment process. Covers the fundamental principals and applications of modern portfolio theory, risk-return relation, asset pricing models, investment performance evaluation, and stock and bond valuation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	527	Derivatives and Risk Management	Characteristics and pricing of forwards, futures, swaps, options. Applies instruments for hedging strategies, corporate risk management, and capital budgeting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	530	Derivatives	Covers options, forward contracts, futures contracts, and swaps. Provides a good knowledge of how these contracts work, how they are used, and how they are priced.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	531	Financial Markets and Intermediaries	Short-term and long-term fixed-income securities and their marketplaces, tools for bond portfolio and interest rate risk management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	540	Financial Markets and Instruments	Offers a comprehensive exploration of the revolutionary developments occurring in the world's financial markets.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	550	Fixed Income Securities	Describes important fixed income securities and markets, and develops tools for valuing fixed income securities and managing interest rate risk. Covers traditional bonds and term structure concepts as well as fixed income derivatives and interest rate modeling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	551	Applied Fundamental Analysis	Analysis of financial documents to determine quality of earnings. Forensic financial analysis to diagnose financial health and sustainable growth.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 and ACC 502 with a grade of C or greater or be currently enrolled

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FIN	556	International Financial Management	Behavior of exchange rates, interest rates, inflation rates. Analyzes corporate exposure to exchange rate risk and hedging strategies. Multicurrency capital budgeting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater or be currently enrolled
FIN	560	International Finance and Investments	Examines the financial issues of an international investment decision. Main topics include foreign exchange market, investment alternatives in the international capital markets, and the management of foreign exchange risk.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	561	Strategic Financial Management	Capstone case-oriented course in strategic applications of corporate finance. Acquisition, allocation, and management of funds within the business enterprise.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	570	Portfolio Strategies and Hedge Funds	Introduces the principles of asset valuation from an applied perspective. Valuation of financial securities and portfolio management applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		
FIN	581	Advanced Valuation Methods	Analyzes practical aspects of valuing the enterprise using economic value added, free cash flow, and other financial techniques.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
FIN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: FIN 502 with C or better
FIN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-12		
FIN	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	781	Theory of Finance	Fundamental tools of financial economics; asset pricing, arbitrage, option pricing, capital structure, dividend policy, asymmetric information, and transaction-cost economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-15		
FIN	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Finance	1.		
FIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-15		
FIN	300	Fundamentals of Finance	Theory and problems in financial management of business enterprises.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W.P. Carey BS/BA student or West Global Mgt student with Professional status
FIN	380	Personal Financial Management	Dynamic analysis of personal financial planning, including time value of money, stock and bond investment, and retirement and estate planning.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
FLA	464	Politics of Drama in 20th-Century Europe	Interdisciplinary examination of European drama before and after WWII.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FMP	201	Film: The Creative Process I	History, elements, and techniques of theatrical film: cinematography, directing, acting, scriptwriting, producing, and criticism. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	
FMP	250	Sex and Violence in Film and TV: Ethics Survey	Sex and violence portrayals in media; examines societal evolution, technological development, market imperatives, production codes, and industry realities and practices.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
FMP	300	Focus on Film	Specialized study of prominent film artists, techniques, and genres. Emphasizes the creative process.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: ENG102, 105 or 108 with C or better
FMP	318	Directing for Film	In-depth analysis of directing theory, textual analysis, visualization, shot composition and spatial connection, staging, rehearsal techniques, and camera movement.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Film and Media Production student; FMP 320 with C or better
FMP	320	Film and Media Post-Production	In-depth analysis of editing theory, storytelling, nonlinear editing techniques and equipment, basics of visual and audio effects.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Must be in Film and Media Production student; Completed FMP 300 (or THE 400) with a grade of C or better
FMP	345	Cinematography I	Cinematographer's role, photographic and visual theory, framing, shot composition, cameras and equipment, crew management, basic lighting for film and video.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
FMP	417	Business Ethics in Entertainment	Business and ethical practices of the entertainment industry; analysis of ethical decision-making techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	480	Film Production Capstone I	Preparation for final project: screenplay, budget, shooting schedule, production lists and reports for preproduction of required capstone film.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: FMP 318 with C or better; majors only
FMP	481	Film Production Capstone II	Final project shooting and postproduction: shooting, editing picture, sound, effects and music; audience screening of required capstone film.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: FMP 318 with C or better; majors only
FMP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
FMP	492	Honors Directed Study		N	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		
FMP	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be an Honors student
FMP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Must be a Film & Media Production student
FMP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Pre-requisites: Must be a Film & Media Production student
FMP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
FMP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Must be a Graduate student
FMS	100	Introduction to Film	Introduces the narrative structure, visual style, and cultural elements of film. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	
FMS	110	Introduction to New Media	Explores the cultural effects of new media technologies. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	
FMS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		

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FMS	200	Film History	Introduces the technological, aesthetic, social, and economic aspects of international film history. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	
FMS	202	Religion and Popular Culture	Explores various interectors between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	
FMS	270	Race and Gender in American Film	Explores how Hollywood shapes perceptions of race and gender in American society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Credit is allowed for only FMS 270or TCL 270
FMS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	300	Media and Cultural Studies	The history of media and its cultural impact. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	Pre-requisites: Must have completed FMS 100 with a grade of C or greater; Must have completed one of the following courses with a grade of C or greater: ENG 102, 105 or 108
FMS	309	Intermediate Screenwriting	Utilizing the elements of storytelling, students develop and write a treatment and the first act of a screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	310	Asian Pacific American Arts and Cultures	Explores Asian Pacific American cultural expression in art, literature, film, theatre, dance, and music.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	
FMS	313	Anti-Semitism in the Media	By examination and discussion of various media, explores the phenomenon of modern anti-Semitism.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	340	Contemporary American Film and Popular Culture	Analyzes American films, television programs, and music as popular cultural documents. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	345	Asian Pacific Americans and Film	Examines representations of Asian Pacific Americans in narrative, popular, experimental, and documentary film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C & H	
FMS	350	Virtual Reality in Film and Media	Analyzes virtual reality in films, media, and fiction. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	351	Emerging Digital Media	Analyzes modern cultural and digital technologies. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L	Pre-requisites: Must have completed one of the following courses with a grade of C or greater: ENG 102, 105 or 108
FMS	352	Chicana/o Film	Explores how Chicano and Chicana filmmakers have interpreted the Chicano experience through the medium of film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	C	
FMS	370	Signs of Aliens: Semiotics of Film and Popular Culture	Introduces semiotics and cultural studies; looks at various meanings ascribed to the sign of the alien.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	
FMS	376	Virgin Mary in History, Film, and Culture	Introduces formation and development of cult of the Virgin Mary; analyzes transformations of Mariology within historical, cinematic, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only FMS or REL 376
FMS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	409	Advanced Screenwriting	Utilizing the elements of storytelling, students outline, develop, and write a feature-length screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites:ENG 102(or ENG 105/108); FMS 100; FMS 309 with grades of C or better, or currently enrolled
FMS	440	Los Angeles: Movies and Culture	Explores film treatment of the historical culture of Los Angeles. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	441	Global Cinema	Examines how film represents three important dimensions of globalization: its relationship to national culture, terrorism, and immigration. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & G	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	450	Technology, Culture, and Media	Studies the socio-political relationships among technology, culture, and media. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	460	Masculinity and Film	Examines the representation of masculinity and the male body in film. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	461	Film Theory and Criticism	Examines the major positions and issues in film theory from an historical perspective. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Prerequisite(s): ENG 102, 105 or 108 with C or better; FMS 100 with C or better; Credit is allowed for only FMS 461 or SLC 440
FMS	464	Latina/o Literature	Development of Latina/o literature. Study of genres and themes; attention to literary antecedents of the new U.S.-based Latina literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	(L or HU) & C	Pre-requisites:You may not enroll in FMS 464 if you have credit in TCL 464
FMS	465	Chicana/o and Latina/o History on Film	Explore history on film; the processes, developing critical perspectives about historiography, and film in relation to U.S.-Mexican borderlands.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Pre-requisites:Completed TCL 201 with a grade of D or better or currently enrolled. May not enroll in FMS 465, if received credit for TCL 465
FMS	466	Constructing the Border on Film	Explores the U.S.-Mexico border on film, examining how border images have been constructed and shaped over time.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	C	
FMS	468	Crime and Violence in American Film	Addresses three primary aspects of crime and violence in film: representation, societal attitudes, effects on audience.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	470	Race, Sex, and Identity Online	Relying on critical and cultural theory, addresses the relationship between race, sex, and social identity online.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only FMS or TCL 470
FMS	471	Latinos In Hollywood	Studies representations of Latinos in film; stereotyping, politics of metaphor, allegory, star discourse, self-representation, resistance, and independent film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	480	Globalization, Technology, and Culture	Studies the socio-political relationship between media and the evolution of globalization. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & G	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better

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FMS	481	Entertainment Technologies	Applies academic and industry knowledge to simulate and to solve "real world" entertainment industry problems and needs.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	482	Entertainment Industries	Uses historical methodologies to critique emerging trends in the business of new media storytelling.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	483	Techno-Entertainment Convergences	Uses historical and scientific methods to forecast future technological developments and use in the entertainment industry.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
FMS	486	Holocaust on Film	Examines how motion pictures recorded actual holocaust events and have depicted them since World War II.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better. Credit is allowed for only FMS 486 or REL 486
FMS	487	Religion and Film	Uses a transdisciplinary approach to explore cinematic representations of religious institutions, belief, and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	490	Capstone Seminar	Capstone seminar.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
FMS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6	L	Pre-requisites: Must be an Honors student
FMS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
FMS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
FMS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FRE	101	Elementary French	Intensive aural/oral drill in class and lab; basic grammar supplemented by simple prose readings. Credit is allowed for only FRE 101 or 111	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students may not sign up for FRE 101 if they have received a C or better in FRE101,102,201,202,205,311,312,321,322,411,412
FRE	102	Elementary French	See FRE 101. Credit is allowed for only FRE 102 or 111.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisite: FRE 101; May not sign up for FRE 102 if received a C or better in FRE 111,201,202,205,311,312,321,322,411,or 412
FRE	107	French for International Professions I	Accelerated alternative to FRE 101 and 102 or FRE 111. Functional approach. Emphasizes communicative competence for international professions. Credit is allowed for only FRE 107 or 111. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.		
FRE	111	Fundamentals of French	Primarily for students with two years of high school French who need review to enter second year study. Credit is allowed for only FRE 111 or 101 or 102 or 107. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students may not sign up for FRE 111 if they have received a C or better in FRE 101,102,201,202,205,311,312,321,322,411,412
FRE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
FRE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	201	Intermediate French I	Grammar review, with emphasis on development of skills of speaking, reading, writing, and listening comprehension. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Student may not enroll in FRE 201 if received a C or better in: FRE202,205,311,312,321,322,411,412
FRE	202	Intermediate French II	Continuation of grammar review with emphasis on development of skills in speaking, reading, writing, and listening comprehension. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Students may not sign up for FRE 202 if they have received a C or better in FRE205,311,312,321,322,411,412
FRE	205	Readings in French Literature	Designed to teach reading with facility and comprehension. Vocabulary building and textual analysis of literary genres are major elements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisite: FRE 202; Students who have received a C or better in FRE 321 or 322, may not enroll in FRE 205
FRE	207	French for Business	Alternative to FRE 202. Functional approach. Emphasizes communicative competence for international professions. Not open to students with credit in FRE 202. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.	G	
FRE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	311	French Conversation	Further practice in speaking French, emphasizing current usage and promoting facility in the expression of ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not enroll in FRE 311, if they have received a C or better in FRE 411.
FRE	312	French Composition	Further practice in writing French, emphasizing current usage and promoting facility in the expression of ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not enroll in FRE 312, if they have received a C or better in FRE 412

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FRE	315	French Phonetics	Practice and theory of French pronunciation. Emphasizes standard French, although an overview of regional varieties is offered.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 311 with a grade of D or better, or currently enrolled
FRE	319	Business French	Introduces the structure, vocabulary, and practices of the French business world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 312 with a grade of D or better or currently enrolled
FRE	321	French Literature	Representative masterpieces and significant movements of French literature of the Middle Ages through the 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & H	Pre-requisites:FRE 205, 312 with a grade of D or better or currently enrolled
FRE	322	French Literature	Literature of the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:Completed FRE 205 & 312 with a grade of D or greater, or be currently enrolled
FRE	325	Introduction to French Film	Studies French artistic contribution from 1895 to present, with emphasis on recent films starting with the New Wave.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	411	Advanced Spoken French	Improvement of spoken French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 311 with a grade of D or currently enrolled & 6 hours of 300-level French
FRE	412	Advanced Written French	Improvement of composition skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 312; 6 hours of 300-level French
FRE	415	French Civilization I	Political, intellectual, social, economic, and artistic development of France from its origins to the end of the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:6 hours of upper-division French
FRE	416	French Civilization II	Political, intellectual, social, economic, and artistic development of France from the 18th century to present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	pre-requisites:6 hours of upper-division French
FRE	421	Structure of French	Phonology, morphology, syntax, semantics, and varieties of French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 311 & 312 with a grade of D or better, or currently enrolled
FRE	422	Applied French Linguistics	Applies linguistic theory and second-language acquisition theory to teaching of French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ASB 480, ENG 213 or SLC 400
FRE	423	French Syntax	Analyzes French syntactic structure by contemporary theoretical models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ASB 480, or ENG 213, or SLC 400 with a D or better or currently enrolled
FRE	432	Gay Identities in Modern French Literature	Examines the representation of homosexuals as well as the emergence of homosexuality as a theme in modern French literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	441	French Literature of the 17th Century	From 1600 to 1660.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	442	French Literature of the 17th Century	From 1660 to 1700.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	445	French Literature of the 18th Century	Contributions of the philosophers and the development of the novel and drama.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	451	French Poetry of the 19th Century	From Romanticism to Parnassian poetry to Symbolism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	452	French Novel of the 19th Century	From Constant, Hugo, Balzac, Stendhal, and Sand to Flaubert and Zola, with emphasis on major literary movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	453	Theater of the 19th Century	From Romantic drama to the Symbolist Theater. Representative plays of Hugo, Musset, Vigny, Dumas, Becque, Rostand, Feydeau, and Mirbeau.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	461	Modern Narrative	Representative authors from Gide to the new Nouveau Roman.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	462	Modern Poetry	Representative authors from Mallarme to Bonnefoy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	471	The Literature of Francophone Africa and the Caribbean	Selected prose, poetry, and drama of black authors from Africa and the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	472	Franco-Canadian Civilization	Study of the civilization of Quebec in particular through its history, language, literature, music, and customs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:9 hours of 300-level French courses with a grade of D or better
FRE	480	Translation Theory and Practice	Theoretical and practical approaches to the fundamentals of meaning-based translation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 412 with a grade of D or currently enrolled
FRE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	485	Literary Translation	Theory and practice of literary translation with emphasis on application through individual translation project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 480 with a grade of D, or currently enrolled
FRE	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
FRE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
FRE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FRE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
FRE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
FRE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	510	Introduction to Textual Analysis	Introduces various oral and written techniques aimed at explicating literary texts. Required of all French graduate students focusing on literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	521	History of the French Language	Principal phonological, morphological, and semantic developments of French from Latin to present, with emphasis on Old and Middle French. Some familiarity with Latin is recommended.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	531	Medieval French Literature	Readings in the epics, early drama, Roman courtois, and other representative literary genres of the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	535	Identity, Gender, and Society in Early Modern French Literature	Readings in French Renaissance literature with special focus on Rabelais, Montaigne, Marguerite de Navarre.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	585	Literary Translation	Theory and practice of literary translation with emphasis on application through individual translation project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
FRE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	790	Reading And Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
FSA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	502	Managing Change in the Fire Service	Dynamics of organizational change and the effect change has on the delivery of fire services to the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	503	Fire Service and the Community	Theoretical concepts of public service to build an understanding of how the fire service fits within the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	510	Fire Department Budgeting and Finance	Functions of budgeting and finance in fire departments within the context of the public sector.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	522	Leadership in the Fire Service	Leadership theories analyzed in a variety of contexts within public and private organizations, then applied to the leadership challenges in the fire service.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student

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FSA	530	Public Policy in the Fire Service	Public policy and the fire services' role in the making of public policy in the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	540	Applied Research Methods in the Fire Service	Research methods applicable to problems that arise in the fire service, including assessments of programs and customer service research.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	550	Fire Service Program Management	Functions of developing and managing fire service programs. Designed for advanced students of fire service administration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	551	Fire Prevention and Public Fire Education	Managing fire prevention organizations and administering fire prevention programs in a contemporary society.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	552	Emergency Medical Services Administration	Complex issues of administering an Emergency Medical Services (EMS) division in a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	553	Special Operations in the Fire Service	Focuses on the variety of special emergency services operations provided by contemporary fire departments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	554	Emergency Fire Operations Administration	Delivery of emergency services to a community by a contemporary fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
FSA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		
FSA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSE	105	College Adjustment and Survival	Explores career goals and majors. Emphasizes organization and development of study skills, including time management, stress management, and use of the library.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		Pre-requisites: Freshman or Sophomore in the Ira A. Fulton School of Engineering
FSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	200	Elements of Engineering Design	Advanced version of introduction to engineering for students who have not taken an introduction to engineering course. Credit is allowed for only FSE 200 or various program introduction to engineering courses.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisites: A grade of C or better in PHY 121 or currently enrolled AND a grade of C or better in MAT 265 or 270.
FSE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	301	Entrepreneurship for Engineers	Overview of entrepreneurship, with emphasis on principles suitable for undergraduate engineering students.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisites: School of Engineering BS or BSE student; Minimum Junior standing
FSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		Pre-requisite: Engineering or Construction BS or BSE student
FSE	399	Cooperative Work Experience	Work periods with industrial firms or government agencies alternated with full-time course work. Not open to students from other colleges.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	400	Creating and Launching a Technology Venture	Focuses on creative and logical processes involved in developing a business idea and investigating its market feasibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	401	Intellectual Property for Technology Ventures	Provides basic understanding of legal issues likely to be encountered in a technology venture; practical approaches and solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	402	Operating a Technology Venture	Managing and leading technology ventures. Principles of organizing, planning, controlling, and leading.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	403	Entrepreneurship Practicum	Places students pursuing a Certificate in Technology Entrepreneurship with a practicing entrepreneur to learn about venture development.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FSE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6	L	Pre-requisites: Must be an Honors student
FSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	497	Honors Colloquium		Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-7		
FSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		
FSE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	501	Technology Entrepreneurship	Fundamental principles and concepts of technology entrepreneurship.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
FSE	502	Strategic Enterprise Innovation	Strategies, techniques, and practices of process, product, and management innovation across the enterprise.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	503	Collaborative Innovation Management	Techniques and practices of collaboration innovation, including an indepth look at managing outsourcing relationships and "wikinomics."	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	504	Corporate Venturing and Intrapreneurship	Explores how companies can create intrapreneurial cultures that lead to greater levels of corporate venturing and long-term competitiveness.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	590	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	594	Conf and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		Pre-requisite: School of Engineering Graduate student
FSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		

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FSE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	690	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	790	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-15		
FSE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-15		
FSM	304	Fire Personnel Management	Promotion, personnel development, career and incentive systems, validation of physical requirements, managerial and supervisory procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	305	Quality Emergency Services	Covers quality issues relating to services delivered by progressive fire departments. Covers management of personnel and resources during organizational change.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	306	Fire Prevention Organization and Management	Examines and evaluates the techniques, procedures, programs, and agencies involved in preventing fires.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	307	Fire Department Safety Organization and Management	Focuses on the management of fire department safety programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	2.		
FSM	308	Fire Department Budgeting	Examines the role of fire department budgets and their relationship to other levels of government as a planning tool.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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FSM	309	Emergency Medical Service Organization and Management	Focuses on the administration and management of emergency medical services delivered by a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	363	Computer Applications in Emergency Management	Explores specific computer programs that are currently in use for contingency planning, tracking chemical inventories, and response resources.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
FSM	400	Human Behavior and the Fire Threat	Proper ways of conducting post-fire interviews; emphasizes the psychological effects of communications during emergencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	401	Labor Relations in the Fire Service	Examines the relationships between management and unions using the Relations by Objectives model.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	404	Program Management and Accreditation	Examines the relationships between management and unions using the Relations by Objectives model.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	405	Fire Service Leadership	Focuses on developing personal and organizational leadership qualities required to be successful in the fire service.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	421	Political and Legal Consideration in Fire Science	Study of legal and political considerations that affect the decision making of fire service managers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	425	Fire Service Administration	Presents modern management and planning techniques that apply to organizing a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	460	Incident Management Systems and Emergency Operations Center	Covers IMS, terminology, players, and management philosophy. EOC setup, activation, operation, and termination. EOC funding and politics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	493	Honors Thesis	Capstone applied project. Applies knowledge learned from FSM course work to solve a practical fire service problem.	N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-6	L	Pre-requisites: Must be an Honors student
FSM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
FSM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
GB	305	Business Law		N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	3.		
GB	305	Business Law		N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	3.		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	SB & G	
GCU	141	Introduction to Economic Geography	Production, distribution, and consumption of various types of commodities of the world and relationships to the activities of humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GCU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	200	Orientation to Geography	Basic introduction to the Department of Geography faculty, undergraduate graduation requirements, and possible jobs and skills in geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(HU or SB) & G	
GCU	253	Introduction to Cultural and Historical Geography	Cultural patterns, including such phenomena as language, religion, and various aspects of material culture. Origins and diffusion and division of the world into cultural areas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	322	Geography of U.S. and Canada	Spatial distribution of relevant physical, economic, and cultural phenomena in the United States and Canada.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	323	Geography of Latin America	Spatial distribution of relevant physical, economic, and cultural phenomena in South, Middle, and Caribbean America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	

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GCU	325	Geography of Europe	Broad and systematic overview of Europe, emphasizing physical, economic, and cultural phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	326	Geography of Asia	Spatial distribution of relevant physical, economic, and cultural phenomena in Asia, excluding the former Soviet Union.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	327	Geography of Africa	Spatial distribution of relevant physical, economic, and cultural phenomena in Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	328	Geography of Middle East and North Africa	Spatial distribution of relevant physical, economic, and cultural phenomena in the Middle East and North Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	332	Geography of Australia and Oceania	Spatial distribution of relevant physical, economic, and cultural phenomena in Australia, New Zealand, and Pacific Islands.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	344	Geography of Hispanic Americans	Examines the homelands, migrations, settlements, landscapes, roles, and selected cultural traditions of Hispanic Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	350	The Geography of World Crises	Contemporary world crises viewed from a perspective of geographic concepts and techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	351	Population Geography	Demographic patterns; spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	352	Political Geography	Relationship between the sociophysical environment and the state.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	357	Social Geography	Environmental perception of individuals and groups. Stresses the spatial aspect of social and physical environments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	359	Cities of the World I	Historical evolution of urban patterns and structures in the Middle East, India, Southeast Asia, China, Japan, and Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G & H	
GCU	360	Cities of the World II	Historical evolution of urban patterns and structures in Latin America, North America, Sub-Saharan Africa, and Australasia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	361	Urban Geography	External spatial relations of cities, internal city structure, and spatial aspects of urban problems in various parts of the world, particularly in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	364	Energy in the Global Arena	Production, transportation, and consumption of energy, emphasizing the electric power industry and its environmental problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	414	Teaching Geography Standards	Introduces Arizona Geography Standards for K-12 educators, emphasizing exciting curricula and illustrated with best practices by master teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	421	Geography of Arizona and Southwestern United States	Geography of the Southwest with an emphasis on Arizona. Divided into physical geography, history, people, and economy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	423	Geography of South America		N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	424	Geography of Mexico and Middle America	Central America and Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	425	Geography of the Mexican American Borderland	Geography of a binational and bicultural region. Examines settlement, boundary issues, ethnic subregions, population change, industrial development, and urban growth. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(L or SB) & G	
GCU	426	Geography of Russia and Surroundings	Examines the geography of Russia and other post-Soviet states.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	432	Geography of China	Examines the physical, economic, cultural, social, demographic, agricultural, political, historical, and environmental aspects of the geography of China.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	

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GCU	433	Geography of Southeast Asia	Examines the biophysical and social features of Southeast Asian nations and peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	441	Economic Geography	Spatial distribution of primary, secondary, and tertiary economic and production activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	442	Geographical Analysis of Transportation	Networks, modes, economics, and flows at the urban, national, and international scales. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	444	Geographic Studies in Urban Transportation	Current urban transportation issues in metropolitan Phoenix. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	453	Recreational Geography	Examines problems surrounding the organization and use of space for recreation. Introduces geographic field survey methods of data collection and analysis.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	455	Historical Geography of U.S. and Canada	Geographical perspective on the evolution of the United States and Canada from pre-Columbian times to early 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & H	
GCU	474	Public Land Policy	Geographic aspects of federal public lands, policy, management, and issues. Emphasizes western wilderness and resource development problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GCU	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
GCU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	495	Quantitative Methods in Geography	Statistical techniques applied to the analysis of spatial distributions and relationships. Introduces models and theory in geography. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	Pre-requisites: MAT 119, 170, 210 or 270
GCU	496	Geographic Research Methods	Scientific techniques used in geographic research. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	Pre-requisites: Must have completed the following courses with a grade of C or greater or be currently enrolled: GPH 371 and GPH 491 and GCU 495
GCU	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GCU	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
GCU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GCU	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	515	Human Migration	Economic, political, social, and geographic factors underlying population movements. Migration selectivity, streams and counter-streams, labor migration, and migration decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	526	Spatial Land-Use Analysis	Determination, classification, and analysis of spatial variations in land-use patterns. Examines the processes affecting land-use change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	529	Contemporary Geographic Thought	Comparative evaluation of current philosophy concerning the nature and trends of geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

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GCU	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	585	Advanced Research Methods in Geography	Specialized research techniques and methodologies in economic, political, or cultural geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	596	History of Geographic Thought	Historical development of geographic thought from pre-Greek days to the early 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	671	Introduction to Geographic Teaching	Intensive course in geographic education, scientific method in research on geographic education, research trends, resources for teaching, best practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	672	Physical Geography for Teachers	Transfer of matter and energy exhibited in the Earth's climate, hydrology, soils, biogeography, and landforms; case studies; virtual field trips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	673	Human Geography for Teachers	Analyzes cultural, economic, urban, historical, transportation, population, political, and development geography; case studies; virtual field trips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	674	Geographic Techniques for Teachers	Introduces geographic techniques, including GPS, GIS, remote sensing, cartography, qualitative, and field methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	675	World Geography for Teachers	Systematic overview of geographic knowledge about different world regions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	676	North American Geography for Teachers	Systematic overview of geographic knowledge about different North American regions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	677	Geography Across the Curriculum	Intensive course on intergrating reading, writing, and mathematics standards with geography content; selected case studies; best practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

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GCU	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GCU	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SB & G	
GCU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	253	Introduction to Cultural and Historical Geography	Cultural patterns, including such phenomena as language, religion, and various aspects of material culture. Origins and diffusion and division of the world into cultural areas.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GCU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	351	Population Geography	Demographic patterns; spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: must have completed MAT 117, or 119, or 142, or 170, or 210, or be currently enrolled in one of these
GCU	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	357	Social Geography	Environmental perception of individuals and groups. Stresses the spatial aspect of social and physical environments.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
GCU	361	Urban Geography	External spatial relations of cities, internal city structure, and spatial aspects of urban problems in various parts of the world, particularly in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
GCU	373	Introduction to Geographic Information Science	Introduces theoretical and computer-based aspects of Geographic Information Systems, involving data analysis and map generation. fee	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SG	Pre-requisite: PSY 230 or SBS 304
GCU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
GCU	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
GCU	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SB & G	
GER	101	Elementary German	Reading, writing, speaking, and understanding of basic German, with emphasis on pronunciation and grammar. Credit is allowed for only GER 101 or 111. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	102	Elementary German	See GER 101. Credit is allowed for only GER 102 or 111. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	111	Fundamentals of German	Primarily for students with two years of high school German who need review to enter second-year study. Credit is allowed for only GER 111 or both GER 101 and 102. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
GER	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	201	Intermediate German	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
GER	202	Intermediate German	See GER 201. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
GER	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	311	German Conversation	Expansion of idiom through oral practice dealing with contemporary articles, essays, and stories. 3 semester hours limit for majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	312	German Conversation	See GER 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	

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GER	313	German Composition	Intensive practice in writing, emphasizing style and grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	319	Business Correspondence and Communication	Organization and presentation of clear, effective business communications; vocabulary applicable to modern business usage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	411	Advanced Grammar and Conversation	Improvement of diction and idiom through intensive oral review.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	412	Advanced Grammar and Composition	Improvement of writing ability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:GER 313 with a grade of D or better or currently enrolled
GER	415	German Civilization	Aspects of political, social, and cultural life of the German-speaking world from the beginning through 1600.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisite: A 300-level German course
GER	416	German Civilization	From 1600 through 1945.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisite: A 300-level German course
GER	421	German Literature	From the beginning to Classicism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: 6 hours of 300-level German courses
GER	422	German Literature	From Romanticism to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: 6 hours of 300-level German courses
GER	453	German Literary Masterpieces on Film	Film and literature in their correlation to each other and to cultural, political, and social trends in German-speaking countries. Special arrangements for graduate students and those without a knowledge of German.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	
GER	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
GER	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
GER	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
GER	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
GER	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	521	History of German Language	Linguistic development of German from the earliest records to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	523	German Drama	Drama of the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	527	The Novelle	Special studies in the German short story.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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GER	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
GER	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GIT	110	Technical Graphics	Representation of 2-D geometry in orthographic, axonometric and oblique projection; detail, assembly, sectional, and auxiliary views; ANSI-standard lettering, size, and position symbols.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	135	Graphic Communications	Introduces the technologies involved in the design, image generation, transmission, and industrial production of multiple images for consumer utilization.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	210	Creative Thinking and Design Visualization	Fundamental methods, concepts, and techniques of creative thinking, design visualization, and problem solving. Also includes communication, cultural, and societal influences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	212	Computer-Aided Design and Drafting (CADD)	CADD for product design, representation, and documentation; includes projection theory, descriptive geometry, graphics analysis, drafting standards, and precision dimensioning techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	CS	
GIT	215	Introduction to Graphics Programming	Introduces analyzing, planning, and executing graphic programs using industry-standard programming tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	230	Digital Illustration in Publishing	Raster and vector illustration in publishing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	237	Web Content Design	Introduces design principles for visual content on the World Wide Web; raster, vector, fonts, portable documents, color palettes, file formats.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	301	Web Site Development for Nonmajors	Focuses on the basic skills necessary to successfully design or maintain a Web site; geared toward non-GIT majors.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	303	Digital Publishing	Introduces software and hardware used for digital publishing and infographics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	312	3-D Computer Graphics Modeling and Representation	3-D solid modeling applications: concepts, techniques, data structures, modeling strategies, assemblies, geometric representation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	CS	
GIT	313	Technical Illustration and Photorealistic Rendering	Computer-generated graphics for technical illustration and design presentation: axonometric and perspective drawing; shading, shadowing, materials and textures; photorealistic rendering for PostScript output.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	314	Multimedia Design, Planning and Storyboards	Creative and conceptual process of content selection, planning, designing, flowcharting, storyboarding, proposing, configuring, prototyping, and presenting multimedia projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	333	Printing Technology	Theory and application of sheet and web press technology for offset-lithography, flexography, screen process, and digital printing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	334	Image Capture and Manipulation	Theory and application of image capture techniques used for all copy formats and conversion processes required for reproduction or dissemination.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	335	Computer Systems Technology	Surveys computer-based technology covering hardware, software, storage, networking, Internet, telecommunications, and information systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	337	Web Content Design	Introduces design principles for visual content on the World Wide Web; raster, vector, fonts, portable documents, color palettes, file formats.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	352	Technical Presentations	Technologies for planning, creating, and delivering individual and group presentations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	384	Commercial Digital Photography	Digital image, conversion, and output in a commercial studio emphasizing publishing workflow.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		

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GIT	411	Computer Animation	2-D and 3-D computer animation methods: project planning, scripting, storyboards, advanced modeling, lighting, materials mapping, and motion.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	412	Multimedia Authoring, Scripting and Production	Production of multimedia projects using industry-standard authoring applications: project management, client considerations, and project documentation; user interface design, interactivity, media, and databases.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	413	Professional Portfolio Design and Presentation	Digital media portfolio design and production: planning, audience analysis, media selection, authoring, media formats, production, copyright considerations, marketing, and delivery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	414	Web Site Design and Internet/Web Technologies	Web site design, authoring, standards, protocols, tools, and development techniques for commercial client-sided Web-based graphic information systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	415	Computer Graphics: Business Planning and Management	Implementation planning: feasibility and application studies; needs assessment and operational analysis techniques; organization, managerial, and technology considerations; business plan development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	417	Advanced Internet Programming	Uses industry-standard programming languages and techniques to create interactive graphic information Web sites and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	432	Graphic Industry Business Practices	Business practices related to press/prepress/Web industries; trade customs, cost analysis, marketing and management approaches.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	435	Web Management and E-Commerce	Internet Web site management, security, online databases, and new e-commerce business models.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	436	Gravure Technology	In-depth study of the market profile and production sequences related to the gravure method of printing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	437	Color Reproduction Systems	Scientific analysis for the engineering of color reproduction systems and color models used in the graphics industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	441	Graphic Information Systems	Graphic information systems common to the workplace: graphic user interfaces for online databases, geographic, industrial, architectural, and management applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	450	Digital Workflow in Graphic Industries	Analyzes digital production systems for input, assembly, and output of graphic information to print and Web, including networking and job tracking.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
GIT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		
GIT	537	Current Issues in Quality Assurance	Directed group study of selected issues relating to quality assurance in the printing, publishing, and information industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	538	Personnel Development for the Graphics Industry	Employee training and development specific to production and management in the graphics industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	540	Cross-Media Design Solutions	Examines universal design theory, creative problem solving, and case study applications for print and new media products of the graphics industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	541	Graphic Information Systems	Graphic information systems common to the workplace; graphic user interfaces for online databases, geographic, industrial, architectural, and management applications.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	542	Information Design and Usability	A hybrid of design and technology solutions focusing on how information is organized graphically to communicate, and how usability engineering is applied to human factors.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
GIT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GLB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	301	Business in the Global Environment	Discusses multinational corporate strategy, structure, operations, and the social and economic factors affecting global business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.	G	Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status.
GLB	302	Culture and Diversity Management	Develops an understanding of culture (individual, organizational, national, subcultural, transnational, and global) and change and interaction applied to management decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3-4		Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status

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GLB	303	Relationship Management	Overviews types of relationships found in organizations, then trains students in the interpersonal skills necessary to effectively manage those relationships.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status
GLB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	401	Global Business Integration	Provides an integrative framework for global corporate strategic analysis and opportunities for integrated decision making in actual and simulated businesses.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.	L	Pre-requisites: Global Mgt student with professional status; Minimum 87 hours; OPM 301 and (FIN 300 or 301) with C or better; MKT 300 or 301 with C or better; GLB 303, HRM 410 or MGT 301 with C or better
GLB	411	Global Competitiveness	Discusses factors contributing to international competitive success of nation-states, national industries, and specific firms. Includes detailed analysis of actual firms.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.		Pre-requisites: School of Global Management and Leadership International Studies student with Professional or Conditional status; GLB 301 with C or better
GLB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
GLB	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1-6		
GLB	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
GLB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		Pre-requisite: School of Global Management and Leadership International Studies student with Professional or Conditional status
GLG	101	Introduction to Geology I (Physical)	Basic principles of geology, geochemistry, and geophysics. Rocks, minerals, weathering, earthquakes, mountain building, volcanoes, water, and glaciers. Students must complete both GLG 101 and GLG 103 to receive an SQ (general studies).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ & G	
GLG	102	Introduction to Geology II (Historical)	Basic principles of applied geology and the use of these principles in the interpretation of geologic history. fee. Both GLG 102 and 104 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SG & H	
GLG	103	Introduction to Geology I-Laboratory	3 hours lab, some field trips. Fee. Both GLG 101 and 103 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	
GLG	104	Introduction to Geology II-Laboratory	Lab techniques involving map interpretation, cross sections, and fossils. Both GLG 102 and 104 must be taken to secure SG general Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SG	
GLG	105	Introduction to Planetary Science	Solar system objects and their geologic evolution, surfaces, interiors, and atmospheres; weekly lab for data analysis and experiments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	4.	SG	
GLG	110	Geologic Disasters and the Environment	Geological studies as they apply to interactions between humans and Earth. Includes geological processes and hazards, resources, and global change. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SG & G	
GLG	111	Geologic Disasters Laboratory	Basic geological processes and concepts. Emphasizes geology-related environmental problems concerning Arizona. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SG	
GLG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GLG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	300	Geology of Arizona	Basic and historical geology, fossils, mining, energy resources, environmental problems, landscape development, and meteorites, cast in examples from Arizona. Not open to Geology majors with credit in GLG 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	304	Geology of the Grand Canyon	Reviews the discovery, history, origin, and geology of the Grand Canyon of the Colorado River in Arizona. 6-day field trip down the river (first 6 days after commencement in May) required at student's expense. Requires field research and term paper on trip.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2.		
GLG	310	Structural Geology	Geologic structures and the mechanical processes involved in their formation. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: Must have completed GLG 101 AND either MAT 270 or MAT 290 with a grade of D or greater
GLG	321	Mineralogy	Crystal chemistry, crystallography, mineral identification, origin and occurrence of minerals, systematic mineralogy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3-4		Pre-requisites: CHM 113 and (MAT 270 or MAT 290); Pre/Co-requisite: CHM 116
GLG	325	Oceanography	Introduces marine geology, chemistry, and physical and biological oceanography. Methods of oceanic exploration, environmental and social aspects of oceans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	362	Geomorphology	Land forms and processes that create and modify them. Lab and field study of physiographic features.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		

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GLG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	400	Geology Colloquium	Presentation of recent research by faculty and guests. Written assignments required. 1 semester hour required for Geological Sciences majors; may be repeated for a total of 2 semester hours.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in geological sciences. Requires weekly reflective reading and writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	C	
GLG	404	Fundamentals of Planetary Geology	Surveys planetary topics, including impacts, tectonics, and volcanism on planetary objects, and use of spacecraft data, including geological mapping.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	405	Geology of the Moon	Current theories of the origin and evolution of the moon through photogeological analyses and consideration of geochemical and geophysical constraints. Possible field trips to examine Arizona geology. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	406	Geology of Mars	Geological evolution of Mars through analyses of spacecraft data, theoretical modeling, and study of terrestrial analogs; emphasizes current work. Possible field trips to examine Arizona geology. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	410	Computers in Geology	Geological computer skills including data processing, visualization, presentation, numerical analysis, software and hardware applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	CS	
GLG	412	Geotectonics	Earthquakes, Earth's interior, formation of oceanic and continental crust, and plate tectonics. Emphasizes current work.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	416	Field Geophysics	Methods of applied geophysical exploration; seismic refraction, gravity, electrical resistivity, geomagnetics. Includes survey planning, data acquisition, processing, analysis, and interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	418	Geophysics	Solid earth geophysics; geomagnetism, gravity, seismology, heat flow. Emphasizes crust and upper mantle.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	419	Geodynamics	Emphasizes application of continuum principles to geological problems, including lithospheric stresses, heat transfer, fluid mechanics, and rock rheology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	420	Volcanology	Distribution of past and present volcanism, types of volcanic activity, mechanism of eruption, form and structure of volcanoes, and geochemistry of volcanic activity. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	424	Petrology	Origin of igneous and metamorphic rocks. Optical mineralogy, hand specimen identification, and thin-section analysis. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	430	Paleontology	Introduces concepts and analytical techniques in biogeology, paleobiology, paleoecology, and paleoenvironmental reconstruction from the fossil record. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	435	Sedimentology	Origin, transport, deposition, and diagenesis of sediments and sedimentary rocks. Physical analysis, hand specimen examination, and interpretation of rocks and sediments. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: Must have completed GLG 102 and GLG 321 with a grade of C or greater
GLG	441	Ore Deposits	Origin, occurrence, structure, and mineralogy of ore deposits. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	451	Field Geology I	Geological mapping techniques using topographic maps and aerial photos. Intensive field-based instruction. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	L	Pre-requisites: GLG 310 with C or better; Pre/Co-requisite: GLG 321
GLG	452	Field Geology II	Continuation of GLG 451. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	L	Pre-requisites: GLG 451 and GLG 321 with C or better; MAT 270 or MAT 290 with C or better
GLG	455	Advanced Field Geology	Geologic mapping in igneous, sedimentary, and metamorphic terrains of the Basin and Range province of Arizona. May be repeated for credit. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3-4		
GLG	456	Cordilleran Regional Geology	Systematic coverage through space and time of the geological development of western North America, emphasizing the western United States. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	461	Geomicrobiology	Past and present interactions among microbial life, geological materials, and biogeochemical cycles involving carbon, sulfur, phosphate, nitrogen, and minerals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	470	Hydrogeology	Geology of groundwater occurrence, aquifer and well hydraulics, water chemistry and quality, contaminant transport, remediation. Emphasizes quantitative methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	481	Geochemistry	Origin and distribution of the chemical elements. Geochemical cycles operating in the Earth's atmosphere, hydrosphere, and lithosphere.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	485	Meteorites and Cosmochemistry	Chemistry of meteorites and their relationship to the origin of the Earth, solar system, and universe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	490	Topics in Geology	Special topics in a range of fields in geology. Fee.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
GLG	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
GLG	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6	L	Pre-requisites: Must be an Honors student

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GLG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	495	Undergraduate Thesis	Guided research culminating in the completion and presentation of an undergraduate thesis based on supervised research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
GLG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-7		
GLG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
GLG	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	501	Geology of Arizona	Basic and historical geology, fossils, mining, energy resources, environmental problems, landscape development, and meteorites, cast in examples from Arizona. Research paper required.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	504	Geology of the Grand Canyon	Reviews the discovery, history, origin, and geology of the Grand Canyon of the Colorado River in Arizona. 6-day field trip down the river (first 6 days after commencement in May) required at student's expense. Requires field research and term paper on trip.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2.		
GLG	510	Advanced Structural Geology	Mechanics of rock deformation, emphasizing relationship among field observation, theory, and experiment. Stress, strain, simple constitutive relationships, failure criteria, and the basis of continuum methods. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	520	Advanced Physical Volcanology	Selected volcanologic topics, including explosive eruption processes, lava flow mechanics, and intrusive mechanisms. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2-3		
GLG	524	Advanced Igneous Petrology	Theoretical and practical aspects of the genesis of igneous rocks. Study of selected sites. Modern lab techniques. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	547	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		You may not enroll in GLG 547 if you have credit in BIO 515, or PAF 547, or SOS 516
GLG	581	Isotope Geochemistry	Geochemistry and cosmochemistry of stable and radioactive isotopes; geochronology; isotope equilibria.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	582	Physical Geochemistry	Applies thermodynamic and kinetic principles to geochemical processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		

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GLG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
GLG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
GLG	101	Introduction to Geology I (Physical)	Basic principles of geology, geochemistry, and geophysics. Rocks, minerals, weathering, earthquakes, mountain building, volcanoes, water, and glaciers. Students must complete both GLG 101 and GLG 103 to receive an SQ (general studies).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ & G	
GLG	103	Introduction to Geology I-Laboratory	3 hours lab, some field trips. Fee. Both GLG 101 and 103 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	
GLG	110	Geologic Disasters and the Environment	Geological studies as they apply to interactions between humans and Earth. Includes geological processes and hazards, resources, and global change. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SG & G	
GLG	111-W	Geologic Disasters/Environ Lab	Basic geological processes and concepts. Emphasizes geology-related environmental problems concerning Arizona. Case histories and field studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SG	
GPH	111	Introduction to Physical Geography	Spatial and functional relationships among climates, landforms, soils, water, and plants. Credit is allowed for only GPH 111 or 411. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	SQ	
GPH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GPH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	200	Orientation to Geography	Basic introduction to the Department of Geography faculty, undergraduate graduation requirements, and possible jobs and skills in geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		

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GPH	210	Society and Environment	Examines the interaction among social processes, key environmental issues, and nature's role as a resource at global and regional scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	211	Landform Processes	Laboratory science class on earth-surface processes, with exercises emphasizing how erosion, transportation, and deposition modifies landforms. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	L or SQ	
GPH	212	Introduction to Meteorology	Fundamentals of weather and climate, including basic atmospheric processes and elements. Students whose curricula require a lab course must also register for GPH 214. Both GPH 212 and 214 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SQ	
GPH	213	Introduction to Climatology	Fundamentals of meteorological/climatological analysis, including terminology and symbology. Recommended for meteorology/climatology program students. Both GPH 213 and GPH 215 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SG	
GPH	214	Introduction to Meteorology Laboratory	Introduces basic meteorological/climatological data and measurements. Suggested concurrent enrollment in GPH 212. Both GPH 212 and 214 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.	SQ	
GPH	215	Introduction to Climatology Laboratory	Fundamentals of meteorological/climatological map analysis and interpretation. Recommended for meteorology/climatology program students. May be taken concurrently with GPH 213. Both GPH 213 and GPH 215 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.	SG	
GPH	271	Maps and Map Reading	Map types, uses, limitations, and evolution. Communication via paper and digital medium. Navigation, interpretation, projections, sources, symbols, classification, case, handling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	314	Global Change	Response of Earth's natural systems (atmosphere, hydrosphere, lithosphere, biosphere) to past environmental change, and effects of potential future changes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & G	
GPH	370	Geographic Information Technologies	Introduces modern geographic information technologies, including cartography, GIS, remote sensing, global positioning systems, and statistical analyses. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	371	Introduction to Cartography and Georepresentation	Study and creation of maps. Fundamental mapping principles (projection, scale, generalization, symbolization) and computer-based cartographic production. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	372	Air Photo Interpretation	Subset, remote sensing, includes photography, films, aerial geometry, image components, stereoscopy, photogrammetry, ground truthing; interpret physical, cultural, economic, intelligence information.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	373	Geographic Information Science I	History and basic aspects of GIS including map and data file structure, conversions, and synthesis with a computerized environment. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	CS	Pre-requisite: GPH 370 with C or better
GPH	381	Geography of Natural Resources	Nature and distribution of natural resources and the problems and principles associated with their use.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	401	Topics in Physical Geography	Open to students qualified to pursue independent studies.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GPH	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in discipline. Requires weekly reflective reading and writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	C	
GPH	405	Energy and Environment	Sources, regulatory and technical controls, distribution, and consequences of the supply and human use of energy. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	409	Synoptic Meteorology I	Diagnostic techniques and synoptic forecasting. Includes techniques of weather analysis, map interpretation, and satellite and radar analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GPH	410	Synoptic Meteorology II	Diagnostic techniques and synoptic forecasting. Includes techniques of weather analysis, map interpretation, and satellite and radar analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GPH	411	Physical Geography	Introduces physiography and the physical elements of the environment. Credit is allowed for only GPH 411 or 111.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		

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GPH	412	Physical Climatology	Physical processes in the earth-atmosphere system on regional and global scales; concepts and analysis of energy, momentum, and mass balances.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	413	Meteorological Instruments and Measurement	Design and operation of ground-base and aerological weather measurement systems. Collection, reduction, storage, retrieval, and analysis of data.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	414	Climate Change	Surveys three climate research areas: paleoclimatology, theories (e.g., greenhouse warming), numerical modeling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	418	Landforms of the Western United States	Studies landforms and geomorphic processes in the western United States, including lecture, topographical maps, aerial photographs, satellite imagery, and field trips. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	
GPH	422	Plant Geography	Plant communities of the world and their interpretation, emphasizing North American plant associations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	433	Alpine and Arctic Environments	Regional study of advantages and limitations of the natural environment upon present and future problems involving resource distribution, human activities, and regional and interregional adjustments.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	471	Geographics: Interactive and Animated Cartography and Geovisualization	Advanced cartography, stressing influence and application of the computer on geographic representation. Emphasizes creation of maps for the Internet. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	473	Geographic Information Science II	GIS as a basis for microcomputer spatial analysis and synthesis. Includes digitizing, database organization, spatial retrieval, and graphics. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	Pre-requisites: Must have completed both GPH 373 and CSE 100 with a grade of C or greater or be currently enrolled
GPH	474	Dynamic Meteorology I	Large-scale atmospheric motion, kinematics, Newton's laws, wind equation, baroclinics, vorticity, and the midlatitude depression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	475	Dynamic Meteorology II	Topics in climate dynamics. General circulation, numerical modeling, teleconnection phenomena, and surface-atmosphere interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	481	Environmental Geography	Problems of environmental quality, including uses of spatial analysis, research design, and fieldwork in urban and rural systems.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	483	Geographic Information Analysis	Basics of spatial data analysis. Topics include point pattern analysis, spatial autocorrelation, spatial regression, and kriging. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	491	Geographic Field Methods	Field techniques, including use of aerial photos, large-scale maps, and fractional code system of mapping; urban and rural field analysis to be done off campus. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GPH	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
GPH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GPH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
GPH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GPH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GPH	511	Fluvial Processes	Geographical aspects of processes of river erosion, transportation, sedimentation: emphasizing spatial characteristics of forces, resistance, landforms, sediment; includes computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	533	Snow and Ice	Processes, distribution, climatic interactions of snow/ice emphasizing mass balance, snow stratigraphy/metamorphism and glacier/snowpack climatology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	535	Water Law and Planning	In-depth study of legal materials providing substantive knowledge of water law, water management issues, and land use planning options.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	573	Geographic Information Science III	In-depth look at programming within GIS. Focuses on programming and methodology, utilizing specific software, and basic scientific computing. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	575	Geographic Applications of Remote Sensing	Uses imaging and nonimaging methods of remote acquisition of data, including satellite sensors, airborne radar, multiband scanning, conventional photographic sensors, and ground-based equipment.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	596	Advanced Spatial Statistics	Multivariate and advanced statistical techniques including Box-Jenkins modeling and spectral analysis. Requires project papers and presentations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	601	Introduction to Geographic Information Systems	Introduces GIS theory and practice for professionals. Module 1 of the fall semester for MAS-GIS professional degree program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	602	Intermediate GIS	Intermediate GIS for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	603	Spatial Statistics and Modeling	Spatial statistics and modeling for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	604	Implementation in the Corporate and Public Sectors	Uses GIS in the corporate and public sectors. GIS ethics. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		

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GPH	605	GIS Project: Real-World GIS Project Planning and Implementation for Public Sector Agencies	GIS project development for the public sector. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	606	Gis Project Presentation	Mastering technical project presentation for GIS professionals. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	610	Programming the GIS Environment	Programming the GIS environment for the MAS-GIS program. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	620	Remote Sensing	Remote sensing for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	630	Air Photo Interpretation for MAS-GIS	Air photo interpretation for the MAS-GIS program. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	640	GIS for Business	Uses GIS in business for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	650	GIS for the Internet	GIS for the Internet.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

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GPH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GPH	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GRA	101	Designing Life	Helps students develop strategies to successfully navigate their education experience. Focuses on critical and reflective thinking.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Students may not enroll in GRA 101 if they received a D or better in GRA 440. Must be a College of Design student
GRA	111	Graphic Design History I	Surveys development of visual communication from its origins to the 20th century. Investigates significant technological, industrial, and social influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	
GRA	112	Graphic Design History II	Surveys contemporary and 20th-century graphic design. Investigates relationships among graphic design and related disciplines, technological, industrial, and social influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 111 with C or better
GRA	121	Principles for Graphic Design I	Graphic design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Must be Pre-Graphic Design student; Co-requisite: GRA 111
GRA	122	Principles for Graphic Design II	Continued exploration of graphic design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Graphic Design student; must have completed GRA 121 with a grade of C or greater or be currently enrolled; Co-requisite: GRA 112
GRA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	220	Design Drawing I	Drawing as language to explore and communicate ideas. Development of drawing aptitude as language and process for graphic design thinking.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Graphic Design student; Must have completed GRA 122 with a grade of C or greater or be currently enrolled
GRA	221	Letterform	Drawing of letterforms with focus on proportion and structure. Introduces letterform nomenclature and classifications. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Graphic Design student; Must have completed GRA122 with a grade of C or greater or be currently enrolled; Co-requisite: GRA 222
GRA	222	Visual Communication I	Theoretical and applied studies in shape, drawing, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Graphic Design student; Must have completed GRA122 with a grade of C or greater or be currently enrolled; Co-requisite: GRA 221
GRA	223	Typography	Theoretical exercises in spatial and textural qualities of type. Problems in tension, activation, and balance. Exercises in simple typographical applications. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Graphic Design student; Must have completed GRA 221 with a grade of C or greater or be currently enrolled; Co-requisite: GRA 224
GRA	224	Visual Communication II	Transition from theoretical to applied problems. Emphasizes refinement of visual skills. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Graphic Design student; Must have completed GRA 222 with a grade of C or greater or be currently enrolled; Co-requisite: GRA 223
GRA	225	Communication/Interaction Design Theory	Theory related to the design of communication artifacts and interaction within various media environments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
GRA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	321	Technology for Design I	Explores the process of technology in design. Projects interface with GRA 361.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Must be Graphic Design BSD student; Co-requisite: GRA 361
GRA	322	Technology for Design II	Emphasizes advanced technology in design problems. Projects interface with GRA 362.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: GRA 321 with D or better or currently enrolled; Co-requisites: GRA 362
GRA	345	Design Rhetoric	Develops critical thinking and expression of ideas in concise and persuasive written and spoken form.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	L	Pre-requisites: Must be either: Graphic Design BSD, Interior Architecture BSD, Architectural Studies BSD, Industrial Design BSD or Housing & Urban Developmnt BSD; Must have completed ENG 102 with a grade of C or better or be currently enrolled
GRA	361	Visual Communication III	Explores methodologies of strategic communication, development of visual systems, and information design ideation processes leading to applied projects in print and digital media. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Must be Graphic Design BSD student; Must have completed GRA 224 with a grade of C or greater or be currently enrolled; Co-requisite: GRA 321
GRA	362	Visual Communication IV	Comprehensive studio projects with emphasis on production processes leading to multidisciplinary applied projects in print, 3-D space, and digital media. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Must be Graphic Design BSD student; Must have completed GRA 361 with a grade of C or greater or be currently enrolled; Co-requisite: GRA322
GRA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	401	Creative Environment	Explores and investigates theories of the psychology of space, psychology of people in space, and the psychology of objects as it pertains to creativity and the creative environment.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
GRA	421	Exhibit Design	Familiarization with the processes associated with the design of exhibits, especially visual communication in 3-D.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Graphic Design BSD student; Must have completed GRA 362 with a grade of C or greater or be currently enrolled
GRA	422	Motion Graphics and Interaction Design	Discusses and explores theory related to the design of motion graphics and interaction through lectures and studio projects.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Graphic Design BSD student; Must have completed GRA 322 with a grade of C or greater or be currently enrolled
GRA	423	Advanced Interaction Design	Advanced discussion and exploration of theory related to the design of interaction.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 422

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GRA	424	Advanced Media	Advanced exploration of digital media for communication.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
GRA	440	Finding Purpose	Career orientation in the creative professions, including value clarification, decision making, lifestyle planning, goal setting, and expression of individual talents.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Students may not enroll in GRA 440 if they received a D or better in GRA 101
GRA	461	Visual Communication V	Comprehensive studio projects with emphasis on design processes, including research, writing, critical thinking, practice, presentation, and analysis. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		
GRA	462	Visual Communication VI	Comprehensive studio projects pursued in cooperation with a public organization or private enterprise. All projects culminate in an exhibit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: GRA 461 with a grade of C or better or currently enrolled
GRA	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
GRA	465	Collaborative Design Development II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
GRA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Must be Graphic Design BSD student; Must have completed GRA 362 with a grade of C or greater or be currently enrolled
GRA	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
GRA	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
GRA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
GRA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
GRA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
GRD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
GRD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GRD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
GRK	101	Elementary Ancient Greek	Ancient Greek grammar and vocabulary with an emphasis on developing reading skills. For beginning students only.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GRK	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GRK	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	201	Intermediate Ancient Greek	Continuation of GRK 101. Ancient Greek syntax and grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: GRK 101 with C or better
GRK	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	301	Ancient Greek Literature I	Readings in ancient Greek prose; advanced grammar. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: GRK 201 with C or better
GRK	302	Ancient Greek Literature II	Continuation of GRK 301. Readings in ancient Greek poetry.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: GRK 301 with C or better
GRK	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
GRK	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
GRK	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
GTD	501	Global Technology and Development	Major theories of economic, political, and social development, with particular emphasis on the impact of current technologies and globalization.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	503	Technology and the International Political System	Historical development of international political system, with emphasis on role of technology.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	505	Research Design in Technology and Development	Emphasizes techniques of primary data collection, effective uses of secondary sources, for qualitative and quantitative applications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	506	Quantitative Analysis in Technology and Development	Uses correlation and regression-based multivariate statistical approaches in development studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre Requisites: Graduate or Non Degree seeking Graduate Students Only
GTD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	School of Letters & Sciences	School of Letters and Sciences	1.		
GTD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
GTD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	School of Letters & Sciences	School of Letters and Sciences	1-12		
HCR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		

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HCR	210	Clinical Health Care Ethics	Healthcare ethics emphasizing analysis and ethical decision making at clinical and health policy levels for healthcare professionals.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisite: ENG 102,105 or 108
HCR	220	Health Care Organizations	Overview of United States healthcare delivery systems; financing, health policy, basic principles of budgeting, cost-benefit analysis, and resource management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	H	
HCR	230	Culture and Health	Cultures of diverse groups and health/illness. Cross-cultural communication, awareness of own cultural influences, indigenous and alternative healing practices.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	C & G	
HCR	240	Human Pathophysiology	Chemical, biologic, biochemical, and psychological processes used in study of structural and functional alterations in health with selected therapeutics.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Undergraduate Nursing students; BIO 201, BIO 202, CHM 101, MIC 205 and MIC 206 with C or better
HCR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HCR	550	Principles of Epidemiology for Healthcare	Introductory graduate-level course intended to provide students with fundamental epidemiology concepts and methods which can be applied to their field of interest.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	561	Responsible Conduct of Clinical Research	Introduces concepts and policies for the responsible conduct of research (RCOR), institutional review boards, and dissemination of findings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	562	Clinical Research Data Management and Technology Implementation	Orientation to database design and management, technology assessment methods, auditing procedures for continuous quality improvement (CQI), and cost-effectiveness analysis (CEA).	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	563	Clinical Research Management and Regulatory Affairs	Principles of clinical research management and regulatory affairs. Overview of national/international regulatory systems and agencies, and trends in conducting clinical research.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	564	Capstone Clinical Research Management Project	Culmination course integrating all components of CRM core courses demonstrating knowledge and competency in designing and managing clinical trials. Students must have documentation of unencumbered professional license in the state where the capstone project will be completed, if required.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: HCR 550, HCR 561 and HCR 562 with a C or better; Pre or Co-requisite: HCR 563 (with C or better if completed)
HCR	565	Clinical Research Operations	Development, implementation, and operations of FDA clinical research trials, including budgeting, contract negotiations, site evaluation, marketing, project management, and reporting.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	569	Applied Principles of Data Management & Inferential Statistics in Healthcare Research	Applied principles of data management and inferential statistics in epidemiological, psychosocial, medical, nursing, and healthcare research. Seminar. Prerequisites: DNP 679; HCR 572; NUR 609; admission to Clinical Research Management Certificate(NUCRGRCC) or master's program (NUCRMMS), any graduate nursing program.	N	SEM	N	GRD	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	570	Introduction to International Health Systems, Professions, and Research	Introduces systems of international healthcare delivery, professions that provide healthcare delivery, and international research principles and practices.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	571	Cultural Diversity in Clinical Practice	Introduces culturally diverse aspects of clinical care, including culture bound syndromes folk practices, appropriate assessment approaches, and client/provider interaction.	N	DIS	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	572	International Health Capstone Project	Culminating course integrating all International Health requirements that produce culturally responsive implementation and evaluation plan for the student's clinical practice. A portion of the course will be held in Mexico.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
HCR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HCR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HEB	101	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
HEB	102	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: HEB 101 with C or better
HEB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HEB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	201	Intermediate Modern Hebrew	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Pre-requisites: HEB 102 with C or better
HEB	202	Intermediate Modern Hebrew	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Pre-requisites: HEB 201 with C or better

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HEB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	313	Advanced Modern Hebrew	Continued development of ability to communicate orally and in writing. Reading of selected literary works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: Must have completed HEB 202 with a grade of C or greater or be currently enrolled
HEB	314	Advanced Modern Hebrew	Continued development of ability to communicate orally and in writing. Reading of selected literary works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: Must have completed HEB 313 with a grade of C or greater or be currently enrolled
HEB	375	Contemporary Culture of Israel	Intense study of aspects of historical, social, political, and cultural modern life in Israel. Beginning of Zionism to present day.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
HEB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
HEB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
HEB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	101	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	4.		
HED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
HED	510	Introduction to Higher Education	Overview of American higher education, including philosophical, political, and social aspects.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-4		
HED	527	Seminar: Student Affairs Administration	Organizational models, administrative competencies and skills, and emerging challenges of student affairs administration.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	533	The Community-Junior College	History, functions, organization, and current issues. Meets Arizona community college course requirement for certification.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		

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HED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
HED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	602	Institutional Research/Strategic Planning	Provides an overview of policy research and planning in higher education at the campus system and governing/coordinating agency levels.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	611	Curriculum and Instruction	Curriculum development, instructional organization, and improvement of instruction in higher education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	620	Diversity in Higher Education	Overview of the demographic profile of college students, faculty, and staff. Addresses issues of access, retention, and development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	644	Higher Education Finance and Budgeting	Financial planning and budgeting in higher education institutions. Issues related to financing public and private colleges and universities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	649	Law of Higher Education	Analyzes legal issues related to higher education; examines key court decisions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	679	The American College Student	Overview of American college student from demographic, background characteristics, and values/attitudes/perspectives. Includes access, persistence, and degree completion.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	687	Governance, Coordination, and External Influences in Higher Education	Study of governance and coordination in higher education systems and the impact of external forces on them.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	688	Organizational Theory	Major views of organizations and their influence on role definition and participant behaviors in educational organization.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	689	Leadership in Higher Education	Theory and practice of leadership and administration in higher education institutions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		

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HED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
HED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
HES	301	Adult Fitness I	Physical fitness and benefits of exercise. Emphasizes fitness assessment and designing an individualized assessment program. Y/E grade only. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		
HES	301	Adult Fitness I	Physical fitness and benefits of exercise. Emphasizes fitness assessment and designing an individualized assessment program. Y/E grade only. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		Credit is allowed for only HES 301, EPE 301,325, 494, HES 301or HES 494
HES	302	Adult Fitness II	Continuation of HES 301. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		
HES	302	Adult Fitness II	Continuation of HES 301. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: HES 301 completed with Y grade; Credit is allowed for only EPE 301, 325, 494 or HES 302
HES	303	Adult Fitness III	Continuation of HES 302. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: HES 301 with Y grade; HES 302 with Y grade; Credit is allowed for only EPE 301, 325, 494 or HES 303
HES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
HHE	510	Theory of Healthcare Design	Theoretical problem solving and practical application strategies used in the design of healthcare and healing environments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHE	540	Healthcare Design Typologies: Case Studies	Industry best practices and benchmarks for various types of hospital facilities and healthcare systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHS	100	Introduction to Holistic Health	Studies holistic health in a bio-psycho-socio-cultural context for health promotion and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	300	Overview of Complementary Health Systems	Identifies and describes major approaches to complementary health models in the context of holistic health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	302	Evidence-Based Complementary Health Modalities	Investigates complementary practices in the context of scholarly knowledge and standards for healthcare.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	400	Community-Based Complementary Health Services	Examines recent developments in community-based health and human services from a holistic perspective.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	402	Work, Health and the Family	Examines issues and programs in the contemporary workplace and society. Future directions for the family and its health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	403	Community Mental Health and Human Services	Examines concepts, issues, and programs in community mental health and the delivery of human services.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	405	Seminar in Holistic Health	Integrates concepts and issues in holistic health within philosophical, historical, political, economic, and cultural frameworks.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
HHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	494	Special Topics		N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIS	101	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	102	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G & H	
HIS	103	The United States	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	104	The United States	Growth of the Republic from the Civil War period to the present day.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	300	Historical Methods	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L & H	
HIS	301	Writing in History	Focuses on methods of writing, reasoning, and arguing in American Studies. Emphasizes the drafting of summaries and short arguments.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
HIS	303	American Cultural History I	First of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	304	American Cultural History II	Second of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	305	History of American Systems to 1865	First of a two-part survey of political, legal, and economic institutions, placed in the context of the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	306	History of American Systems since 1865	Second in a two-part survey of political, legal, and economic institutions, placed in the context of a dynamic industrialist capitalist society, from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	320	19th-Century West	Social, political, and economic development of trans-Mississippi West beginning with Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	331	American Indians	History of the American Indian with emphasis on the government's Indian policy and the impact of the white man on tribal culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	340	American Military History	Studies the role of the military in American life during war and peace from colonial times to the present day.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	355	World History to 1500	Studies world history to 1500 with emphasis on the connection between regional history and the growth of world civilization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	356	World History Since 1500	Studies world history since 1500, with emphasis on the connection between regional history and the growth of world civilization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	359	Marginality and Social Identity in Late Medieval and Early Modern Europe	Social history of changing definitions and perceptions of marginality, and how these conceptions conditioned responses to marginalized groups and individuals.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: must have completed ENG 102 or 105 with a grade of C or greater AND completed HIS 101 or 300 with a grade of C or greater or be currently enrolled.

Subject	Catalog Nbr	Course Title Long	DescrLong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HIS	363	Reformation	The Protestant and Catholic Reformations in the 16th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	364	African American History and Culture Since 1865.	Studies African American history and culture from the end of the Civil War in 1865 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H & C	
HIS	377	Women in Europe, 1700-Present	Historical survey of European women's lives, emphasizing the impact of gender on social, political, economic, and cultural experience.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	378	20th Century Europe at War, 1900-1945	Surveys the history of the World Wars in Europe, emphasizing the relationship among military developments, culture, and society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	402	American Colonies: Settlement and Society in Colonial North America, 1600-1763	Examines the history of the English and French empires in North America and the Caribbean. Explores the social, economic, cultural, political, and economic development of the French and English colonies in the Atlantic World from the 17th century through the Seven Years War (1754-1763). Examines how the English and French colonies developed and matured in response to one another as well as the consequences of their persistent competition and conflict for the larger Atlantic World.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	403	Empire and Independence in North America, 1763-1800	Examines the history of British North America from 1763 through the organization of the United States' Republic.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	Pre-requisites: must have completed one of the following sets with a grade of C or greater: HIS 101 & 102, HIS 103 & 104, HIS 303 & 304, HIS 305 & 3056 or HIS 355 & 356.
HIS	406	Civil War and Reconstruction	Causes and development of the war; political, constitutional, and social issues of Reconstruction and their effects on postwar America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & H	
HIS	411	Contemporary America	The United States from 1945 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & H	
HIS	419	Topics in American Historical Periods	Focuses on specific periods in American history. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	423	Mexico	Political, economic, social, and cultural developments from 1810 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	424	The Hispanic Southwest	Development of the Southwest in the Spanish and Mexican periods to 1848.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
HIS	425	Frontiers of Hispanic Society and Culture	History of interactions between peoples and cultures of the Iberian Peninsula and Iberian global expansion through the Habsburg period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: must have completed ENG 102 or 105 with a grade of C or greater AND completed HIS101 or 300 or 355 with a grade of C or greater or be currently enrolled.
HIS	429	Topics in American Regional History	Focuses on the history of specific geographic regions within North America. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	430	20th Century Chicano/a History	Historical development of the Chicano community in the 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	431	Social History of American Women	Examines women's social position in America. In-depth analysis of specific women's issues in terms of change over time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H & C	
HIS	439	Topics in American Race, Class, Gender, and Ethnicity	Emphasizes the use of race, class, gender, and/or ethnicity as categories of historical analysis.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	443	Constitutional History of the United States	Origin and development of the American constitutional system, from Reconstruction to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	444	American Urban History	The history of the city in American life from the 19th century to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	449	Topics in American Themes and Issues	Focuses on significant themes and issues in American history.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	450	Topics in Comparative History	Comparative history with reference to one or more themes.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	454	History of Genocide	Examines the individuals and institutions responsible for the most infamous episodes of state-sanctioned violence in the 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	458	Africa Since 1400	Studies African history and culture since 1400, emphasizing ideas, events, institutions, foreign influence and its effect on the continent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	462	The African Diaspora	Enforced dispersal of Africans during the Slave Trade emphasizing its causes, effects on Africa, and the enslaved in the Americas.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	465	Origins of Racism	Studies the history of racial discrimination with emphasis on the connection among race, ideology, and the global economy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	467	Topics In Europe	Courses under this title focus on specific periods in European history. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	469	Modern Germany	Germany since 1840.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

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HIS	475	Topics in European Regional and National History	Focuses on the history of specific geographic regions or nations in Europe.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	482	Topics in European Gender, Ethnicity, & Class	Emphasizes the use of gender, ethnicity, and/or class as categories of historical analysis.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	483	History of Women and Gender in Europe to 1789	European women's lives in the premodern period. Emphasizes the impact of gender on social, political, economic, religious, and cultural experience.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: ENG 102 or 105 with C or better; HIS 101 or 300 with C or better
HIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	487	Topics in European Themes and Issues	Focuses on significant themes and issues in European history.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
HIS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
HIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7	L	Pre-requisites: must have completed HIS 300 with a grade of C or greater; or be currently enrolled; AND have completed ENG 102, or 105 or 108 with a grade of C or better
HIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
HIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-3		
HON	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Honors students only; Total earned hours must be equal to or less than 60
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better

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HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	273	The Human Event: Science Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on scientific thought.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L & H	Pre-requisites: HON 171 with C or better or currently enrolled
HON	273	The Human Event: Science Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on scientific thought.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L & H	Pre-requisites: HON 171 with C or better or currently enrolled
HON	274	The Human Event: Social Science Focus	Continuation of HON 171 from the Renaissance through the modern period; emphasizes the development of the social sciences.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		Pre-requisite: HON 171 with C or better
HON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		
HON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		
HON	298	Honors Directed Study		N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		
HON	310	Justice and Law	Philosophical study of theories of justice in relation to law and morality. Required for Certificate in Philosophy, Politics, and Law.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	317	Philosophers, Poets, and Revolutionaries in Latin America	A transdisciplinary honors course that introduces students to major intellectual currents in three regions of Latin America.	N	DIS	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	371	Freedom and Authority	Historical overview of concepts of liberty, responsibility, and power in Western societies, emphasizing 18th- to 20th-century developments.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	372	French Cultural Influences	Explores textual and cultural artifacts formative of French culture as a series of contacts and conflicts with other peoples and lifeways.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & G	
HON	373	Heroes, Heroines, and Villains	Examines concepts of heroic and villainous characteristics as expressed in the literature and visual arts of various cultures throughout history.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	374	Black and White Atlantic	Examines development (18th- to 20th-century) and cultural manifestations of Black/White race relations within the U.S. and between the U.S. and other nations.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & G	
HON	375	Science and the Modern Self	Concentrates on texts of the 19th and 20th centuries; explores how scientific discourse determines our notions of self.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	376	Law, Literature, and Life	Multidisciplinary approach to the subject of law, examining it through literature, history, and legal philosophy.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	Pre-requisites: Honors students only
HON	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	378	Culture and Society in England, Ireland, and Scotland	Chronologically explores texts, events, and sites for historical and cultural impact on development of England, Ireland, Scotland, and their countries' relationships with each other.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & H & G	
HON	379	Romantics, Victorians, and Moderns	Examines the development and impact of various literatures, arts, and ideas in England, Ireland, and Scotland from the Romantic through the Modern period.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & G	
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Honors students only
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Honors students only
HON	410	Philosophy, Politics, and Law	Topics in political and legal philosophy, including political authority, obligation and disobedience, the nature of crime and punishment. Required for Certificate in Philosophy, Politics, and Law.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-12		Pre-requisite: Barrett Honors student
HON	485	Biosphere 2; Study Opportunity	For students participating in the ASU-sponsored program at Biosphere 2.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1-18		
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	497	Honors Colloquium		Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		
HON	497	Honors Colloquium		Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisite: Honors students only
HON	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-7		Pre-requisites: Honors students only

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HON	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-3		
HON	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-15		
HPS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HPS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	311	Origins, Evolution, and Creation	Examines scientific, mythic, and religious ideas relating to origins (particularly human). Place of antievolutionism and scientific creationism in American culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	312	History of Women in Science and Medicine	Examines history of gender issues in Western science and medicine from Greco-Roman antiquity through the beginning of the 21st century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU or SB	
HPS	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	Credit is allowed for only HPS 314 or PHI 314
HPS	322	History of Science	Development and application of scientific thinking from ancient times through the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H	
HPS	323	History of Science	Development and application of scientific thinking from the 18th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H	
HPS	325	History of Chinese Medicine	Explores developments of Chinese traditions dealing with the natural world, science, and medicine.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H & G	
HPS	330	History of Biology: Conflicts and Controversies	Focuses on 19th and 20th centuries, considering biology as a discipline. Evolution, problems of heredity, development, and cell theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
HPS	331	History of Medicine	Scientific study of the human body, changing theories of disease, evolution of practical opinions on treatment, and the emerging institutionalization of medical practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
HPS	332	The Darwinian Revolution	Intellectual and cultural history of Darwinism and modern evolutionary theory and their impact on 19th- and 20th-century thought.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	336	Exploration and Science	500-year survey of exploration as a historical process and cultural activity of Western civilization, with emphasis on its links with modern science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SB & H	
HPS	340	Biology and Society	Explores interactions between biological sciences and society, e.g., biomedical, environmental, ethical, historical, legal, philosophical, political, and social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	402	Technology, Society, and Human Values	Values that motivate humankind to create technology. Areas of conflict and resolution of conflict between values and technology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	410	Professional Values in Science	Considers issues related to values in science such as collaboration, finances, legal issues, media, mentoring, ownership of ideas, scientific integrity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
HPS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
HPS	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
HPS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
HPS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
HPS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		

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HPS	513	Decisions and Strategies	Explores topics in decision theory, game theory, social choice theory, epistemology, and related fields. May be repeated for credit.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		
HPS	514	Philosophy of Science	Explores topics concerning methods, theories, discovery, evidence, and other core issues in the philosophy of science.	N	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		
HPS	522	History of Science	Explores topics concerning ideas, people, institutions, experiments, and other issues in the history of science.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		
HPS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
HPS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
HSD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
HSD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
HSD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Graduate College	Graduate College	1-12		
HSD	601	Core Seminar I	Interdisciplinary synthesis, theoretical foundations, and methods for humanistic and social science research on science and technology.	N	SEM	N	OPT	Graduate College	Graduate College	4.		
HSD	602	Core Seminar II	Interdisciplinary synthesis, theoretical foundations, and methods for humanistic and social science research on science and technology. Continuation of HSD 601.	N	SEM	N	OPT	Graduate College	Graduate College	4.		
HSD	610	Colloquium	Regular meeting for the entire HSDST community. Includes outside speakers, student and faculty member presentations, and community discussions. May be repeated for credit for a total of 6 hours.	N	SEM	Y	OPT	Graduate College	Graduate College	1.		

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HSD	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-15		
HSD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
HSD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Graduate College	1-15		
HSM	220	Health Care Organizations	Overview of United States healthcare delivery systems; financing, health policy, basic principles of budgeting, cost-benefit analysis, and resource management.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.	H	
HSM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HSM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	493	Honors Thesis		N	PRA	N	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-6		
HSM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HSM	502	Health Care Organization	Concepts, structures, functions, and values that characterize contemporary healthcare systems in the United States.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	505	Principles of Epidemiology	Basic constructs and measures of epidemiology. Epidemiologic study designs. Potential impact of chance, bias, confounding, on an epidemiologic study. Causal criteria; levels of evidence in epidemiological studies, implications and limitations of statistical association.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	512	Healthcare Economics	Economics of production and distribution of healthcare services, with special emphasis on the impact of regulation, competition, and economic incentives.	N	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	522	Health Sector Information Management	Information technology and knowledge management applications in the health sector, including care delivery and financing institutions and in the pharmaceutical and biotechnology industries.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	542	Healthcare Law	Legal aspects of healthcare delivery for hospital and health services administration. Legal responsibilities of the hospital administrator and staff.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	561	Biostatistics	Aspects of descriptive statistics and statistical inference most relevant to health issues, including data, rates, and confidence intervals.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	564	Health Care Finance	Overview of the acquisition, allocation, and management of financial resources by healthcare providers. Focuses on economic, financial, and accounting principles.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	565	Introduction to Health Policy	Current policy issues in health through concepts of access, cost, and quality; issues relating to disease trends and policy formulation.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	566	Managerial Epidemiology	Basic principles of epidemiology, evaluation of etiology, natural history, intervention therapy, and disease prevention.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	575	Health Policy Management and Evaluation	Management of long-term care services and facilities, including behavioral health and rehabilitation programs.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	589	Healthcare Strategic Management	Capstone assessment of current policies, problems, and controversies across the broad spectrum of health services administration.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		

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HSM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H & G	Credit is allowed for only HST 101 or SGS 111
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	103	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G & H	
HST	105	Slavic Civilization	Development of Slavic cultures and societies from medieval Byzantium to the present; introduces modern Eurasia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	106	Asian Civilizations	Civilizations of China, Japan, and India from antiquity to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G & H	
HST	107	Asian Civilizations	Civilizations of China, Japan, India, and Southeast Asia from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	108	Introduction to Japan	Historical survey of the people, culture, politics, and economy of Japan, supplemented by audiovisual presentations. Intended for nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		Pre-requisites: Must be a BA History student; Must have less than or equal to 40 total earned hours
HST	200	Historical Themes	General introduction to selected themes in history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	201	Historical Themes in Asia	General introduction to selected themes in Asian history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	202	Historical Themes in Europe	General introduction to selected themes in European history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	203	Historical Themes in Latin America	General introduction to selected themes in Latin American history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	204	Historical Themes in the US	General introduction to selected themes in United States history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	205	Historical Themes in Africa	General introduction to selected themes in African history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
HST	210	American Social History	American society from the colonial period to the present. Ethnicity, race, age, and sex as factors in historical experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	211	American Jewish History	Chronological analysis of Jews and Judaism in American history and letters.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G	
HST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
HST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
HST	300	Historical Inquiry	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU or SB) & H	Pre-requisites: Must be a student in one of the following: Secondary Ed-History, Secondary Ed - Social Stds, History, History (Minor); Must have 45 or greater earned hours; Must have completed either ENG 102 or 105 with a grade of C or greater
HST	302	Studies in History	Specialized topics in history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	303	Studies in Asian History	Specialized topics in Asian history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	304	Studies in European History	Specialized topics in European history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	

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HST	305	Studies in Latin American History	Specialized topics in Latin American history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	306	Studies in United States History	Specialized topics in United States history. Explores regions, cultures, and issues in history, and their interpretation in historical scholarship.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	307	Studies in African History	Specialized topics in African history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	H	
HST	309	Exploration and Empire	Surveys European discovery, exploration, and imperialism in the early modern and modern periods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
HST	310	Film as History	Surveys moving image media as recorder, object, and writer of history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
HST	312	History of Women in Science and Medicine	Examines history of gender issues in Western science and medicine from Greco-Roman antiquity through the beginning of the 21st century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU or SB	
HST	313	American Cultural History to 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the nation's colonial and early national periods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	314	American Cultural History Since 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the age of industrialism to modern U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	315	Political History of the U S	American political history since independence, focusing post-1865. Evaluates major trends in issues, presidential leadership, elections, and state politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	316	20th-Century U.S. Foreign Relations	U.S. relations with foreign powers from the late 19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	319	U.S. Urban History to 1850	History of the city in American life from the colonial period to the mid-19th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	320	U.S. Urban History since 1850	History of the city in American life from the mid-19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	321	Constitutional Hist/US to 1965	Origin and development of the American constitutional system from colonial period through the Civil War.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	322	Constitutional History of the United States Since 1865	Development of the U.S. constitutional system from Reconstruction to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	323	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
HST	325	Immigration and Ethnicity in the United States	Origins, historical development, and future of a multiethnic society, 1492 to 2050.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	327	Women in US History 1600 to 1880	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	329	Women in 20th-Century US West	Examines how women of various cultures have contended for and shaped the U.S. West, including the West of imagination.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	H & C	
HST	330	Mexican Women in the U.S.	Overview of Chicana history from Mesoamerican origins to the present, focusing on Mexican women in the western U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H & C	
HST	331	Mexican American History to 1900	Mexican American history from pre-Hispanic origins to frontier journeys north through 19th-century life in the U.S. Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	332	Mexican American History Since 1900	Traces the formation of Mexican American communities across the rural and urban U.S. and examines 20th-century immigration from Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	333	African American History to 1865	The African American in American history, thought, and culture from slavery to 1865.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	334	African American History Since 1865	The African American in American history, thought, and culture from 1865 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	337	American Indian History to 1900	Cultural, economic, political, and social continuity and change of American Indian communities to 1900.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	338	American Indian History since 1900	Cultural, economic, political, and social continuity and change of American Indian communities from 1900 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	341	U.S. West 19th Century	Social, political, and economic development of the trans-Mississippi West, beginning with the Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	342	US West 20th Century	Role of the western states in U.S. history since 1890 emphasizing politics, the environment, industry and labor, and ethnic minorities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	343	American Southwest	Development of the region from 1848 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	344	Arizona	Emergence of the state from early times to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	347	Ancient Greece	History and civilization of the Greek world from 650 BCE to the death of Alexander the Great.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	348	Rome	History and civilization of Rome from the beginning of the Republic to the end of the Empire.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	349	Early Middle Ages	Political, socioeconomic, and cultural developments of Western Europe from the 5th through 10th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	350	Later Middle Ages	Political, socioeconomic, and cultural developments of Western Europe from the 11th through 15th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	351	Renaissance Europe	Culture of the Renaissance in Italy and Northern Europe from the 14th to the early 16th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU or SB) & H	
HST	352	Europe's Reformations	Causes and implications of the major Protestant, Catholic, and Radical religious reformations in 16th- and 17th-century Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU or SB) & H	
HST	353	Old Regime in Europe	Society and culture of Europe during the 17th and 18th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	354	Revolutionary Europe	Political, social, economic, and intellectual currents in Europe from the French through the Russian Revolutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	355	Total War & the Crisis of Modernity	Forces of change and instability in early 20th-century Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	356	Europe since 1945	Europe in its world setting since World War II, emphasizing major political and social issues from 1945 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	358	Jewish History from the Bible to 1492	Continuity and change in political, legal, economic, and sociocultural history of the Jews from biblical through medieval times.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	359	Jewish History from 1492 to 1948	Jewish history from early modern through modern times, highlighting emancipation, enlightenment, and Jewish responses to modernity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	361	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
HST	362	Sex and Society in Classical and Medieval Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and religious change in classical and medieval Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	363	Sex and Society in Early Modern Europe	Family life, sex roles, and marriage and their relationship to political, economic, and religious change in early modern Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	364	Sex and Society in Modern Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and social changes in modern Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	365	Women in Europe	European women's diverse religious, ethnic, national, and economic roles in society, culture, and politics, 1750 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU or SB) & H	
HST	366	England to 1689	Political, economic, and social development of the English people to the late 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	367	Modern Britain	Political, economic, and social development in Britain from 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	368	Culture & Imagination in European History	Topics in European cultural and intellectual history. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
HST	370	Eastern Europe in Transition	Democratization, privatization, and identity transformations since the fall of communism in contemporary Eastern Europe and the former Soviet Union.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	372	Modern Middle East	Impact of the West and modernization upon Middle Eastern governments, religion, and society in the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	375	Colonial Latin America	Ancient civilization, exploration and conquerors, and colonial institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	376	Modern Latin America	Nationalistic development of the independent republics since 1821.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	377	Women in Colonial Latin America	History of women in colonial Latin America, cross-examining class, race, and gender relations in depth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	H	
HST	378	Latin American Women: The National Period	Surveys the history of women, gender relations, and state policies in a broad continental setting, from independence to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	379	Rebellion & Revolution/So Amer	Political, economic, and social development of Spanish-speaking nations in South America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
HST	380	Cultural History of Latin America	Main currents of thought, the outstanding thinkers, and their impact on 19th- and 20th-century Latin America. Cultural and institutional basis of Latin American life.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	383	China	Political, economic, social, and cultural history of the Chinese people from early times to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	384	China	Political, economic, social, and cultural history of the Chinese people from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	385	History of Chinese Medicine	Explores developments of Chinese traditions dealing with the natural world, science, and medicine.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H & G	
HST	386	Interpreting China's Classics	Study of selected Confucian and/or Taoist classics and ways they have been read in both Asian and Western scholarship.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
HST	387	Japan	Political, economic, social, and cultural history of the Japanese people from early times to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	388	Japan	Political, economic, social, and cultural history of the Japanese people from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	389	Japan Society and Values/Premod	Effects of economic and social transitions on personal and social values as reflected in the dramatizations of contemporary events.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	391	Modern Southeast Asia	Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Singapore, Brunei, Indonesia, and Philippines since 1750: imperialism, revolution, and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
HST	405	Colonial American History to 1763	Political, economic, social, and cultural history of the colonial era. Concentrates on English colonies, with some consideration of Spanish, French, and other colonial regions in North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	406	American Revolution/1763-1789	Causes, course, and consequences of the American Revolution culminating in the ratification of the Constitution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	407	Early U.S. Republic/1789-1850	Political, social, economic, and cultural development of the United States from the Revolution to 1850.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	408	Civil War and Reconstruction	Explores the causes, conduct, and consequences of the American Civil War, concentrating on the years 1848 to 1877.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	409	Emergence Modern U.S. 1877-1918	Triumph of modern political, social, and economic structures and values, 1877-1918; role of region, religion, race, and ethnicity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	410	Modern U.S., 1918 to 1945	1920s boom and the crash, the Depression and the New Deal response. The Second World War at home and abroad.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	411	Postwar U.S., 1945-1973	Cold War, prosperity, reform, and immense social and political change in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	412	Contemporary U.S., 1973- Present	End of the Cold War, political crises, and cultural transformations in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	414	The Modern U.S. Economy	Origins of 19th-century slavery and industrialization; 20th-century crisis and regulation; political economy of an advanced capitalist democracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	415	Unequal Sisters/Women-Pol/Cult	Examines race, ethnic, and class differences among women, focusing on the political and cultural experiences of women in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H & C	
HST	417	Topics in Mexican American History	Focuses on specific topics in Mexican American history including immigration, civil rights, the Chicano Movement, union activism, and regional and generational differences.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	423	The Tudor Monarchy	Political, cultural, and social foundations of 16th-century England.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	424	Stuart Transform of England	Political, social, economic, and cultural developments in 17th-century England.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	426	The British Empire	British imperialism and colonialism in Africa, the Americas, Asia, and the South Pacific.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	427	French Revolution/Napoleonic Era	Conditions in Pre-Revolutionary and Revolutionary France; organization of France under Napoleon and impact of French changes upon Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	428	Modern France	Social, political, economic, and cultural transformations of French society, 1815-present. Impact of industrialization, war, and revolution on people's lives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	429	Modern Germany	Germany since 1871.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	430	Hitler: Man and Legend	Biographical approach to the German Third Reich emphasizing nature of Nazi regime, sociocultural issues, World War II, and historiography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	431	Eastern Europe and the Balkans, Pre-1914	Empire and nation in Eastern Europe and the Balkans before World War I, emphasizing Hapsburg and Ottoman lands.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	432	East Euro/ the Balkans-20 Cent	Politics and culture in Eastern Europe and the Balkans from World War I to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	435	The Russian Empire	Development of Russian imperial institutions and civil society from the 17th to the early 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	436	The Soviet Experiment	Communist revolutionaries' rule of Russia, focusing on utopian culture, Stalinist terror, heroism in war, and the breakup of the former USSR.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	437	Spain through the Golden Age	Cultural, economic, political, and social development of Spain from antiquity to the late 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	438	Modern Spain	Cultural, economic, political, and social development of modern Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G & H	
HST	443	The United States & Latin America	Latin American struggle for diplomatic recognition, attempts at political union, participation in international organizations since 1810, and relations between the United States and Latin America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	445	20th-Century Cuba	History of Cuba from colonial era to formation of the early republic; political, economic, social development in late 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	446	Colonial Mexico	Political, economic, social, and cultural developments from pre-Columbian times to 1810.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	447	Modern Mexico	Political, economic, social, and cultural developments from 1810 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	451	Chinese Cultural History	China's classics in translation studied both for their intrinsic ideas and for the origins of Chinese thought.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	452	Chinese Cultural History	Evolution of Confucian thought, its synthesis with Taoism and Buddhism, and modern reactions against, and uses of, Confucian traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	

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HST	453	The People's Republic of China	Analyzes major political, social, economic, and intellectual trends in China since the founding of the People's Republic in 1949.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	455	The United States and Japan	Cultural, political, and economic relations in the 19th and 20th centuries. Emphasizes post-World War II period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	456	The Vietnam War	Intersection of American and Asian histories in Vietnam, viewed from as many sides as possible.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	480	Methods of Teaching History: Classroom Resources	Methods in instruction, organization, and presentation of the subject matter of history and closely allied fields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must have completed either SED 403 or SED 598 with a grade of C or greater or be currently enrolled
HST	481	Methods of Teaching History: Community Resources	Identify community-based resources for teaching history, work with resources, and learn how to integrate them into the secondary classroom.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must have completed either SED 403 or SED 598 with a grade of C or greater or be currently enrolled
HST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		Pre-requisites: Must be an Honors student
HST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6	L	Pre-requisites: Must be an Honors student
HST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
HST	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		
HST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-7	L	Pre-requisites: HST 194 completed or HIS 300, HST 300 or HST 200 with a C or better or currently enrolled; History student with senior standing or Education-History student with greater than 75 earned hours
HST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		
HST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	502	Public History Methodology	Introduces historical research methodologies, techniques, and strategies used by public historians. Readings, short papers, and guest speakers. Required for students in the public history concentration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	512	West Civil to the Enlightenmnt	Systematically examines various interpretations of Western civilization from the ancient Middle Eastern civilizations to the European Enlightenment.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	514	Historians of the U.S.	Study of the history of American historical writing from the early colonial days to the 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	515	Studies in Historiography	Methods and theories of writers of history.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	525	Historical Resource Management	Identification, documentation, and interpretation of historic period buildings, sites, and districts. Emphasizes interdisciplinary efforts among historians, architects, and anthropologists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	526	Historians and Preservation	Preparation of historians for public and private historic preservation programs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	527	Historical Administration	Preparation of historians in administration of archives and historical sites, museums, societies, and offices in government agencies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	532	Community History	Techniques and methods of community history emphasizing local resources. Required for community history option.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	551	Comparative Histories--War and Revolution	Comparative field course of the themes of war and revolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be MA or PHD student in History.
HST	554	Population-Ethnicity/Econ/Migr	Comparative course that explores the impact of social, cultural, or economic changes in the population.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be MA or PHD student in History.
HST	555	Comparative Historical Topics	Analyzes a variety of specific social, political, cultural, and intellectual topics.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		Pre-requisite: History MA or PHD student
HST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		Pre-requisite: History MA or PHD student
HST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		Pre-requisite: History MA or PHD student
HST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		Pre-requisite: History MA or PHD student
HST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		Pre-requisite: History MA or PHD student
HST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		Pre-requisite: History MA or PHD student
HST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		Pre-requisite: History MA or PHD student
HST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Applied Arts & Sci P	Faculty of Humanities	1-7	L	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	103	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
HST	107	Asian Civilizations	Civilizations of China, Japan, India, and Southeast Asia from the 17th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	203	Historical Themes in Latin America	General introduction to selected themes in Latin American history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	204	Historical Themes in the US	General introduction to selected themes in United States history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	205	Historical Themes in Africa	General introduction to selected themes in African history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HST	210	American Social History	American society from the colonial period to the present. Ethnicity, race, age, and sex as factors in historical experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	300	Historical Inquiry	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU or SB) & H	Pre-requisites: Must be a student in one of the following: Secondary Ed-History, Secondary Ed - Social Stds, History, History (Minor); Must have 45 or greater earned hours; Must have completed either ENG 102 or 105 with a grade of C or greater
HST	313	American Cultural History to 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the nation's colonial and early national periods.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	314	American Cultural History Since 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the age of industrialism to modern U.S.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	315	Political History of the U S	American political history since independence, focusing post-1865. Evaluates major trends in issues, presidential leadership, elections, and state politics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	325	Immigration and Ethnicity in the United States	Origins, historical development, and future of a multiethnic society, 1492 to 2050.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
HST	327	Women in US History 1600 to 1880	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	341	U.S. West 19th Century	Social, political, and economic development of the trans-Mississippi West, beginning with the Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	342	US West 20th Century	Role of the western states in U.S. history since 1890 emphasizing politics, the environment, industry and labor, and ethnic minorities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	343	American Southwest	Development of the region from 1848 to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	344	Arizona	Emergence of the state from early times to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	361	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
HST	408	Civil War and Reconstruction	Explores the causes, conduct, and consequences of the American Civil War, concentrating on the years 1848 to 1877.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	456	The Vietnam War	Intersection of American and Asian histories in Vietnam, viewed from as many sides as possible.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
HTY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	220	Introduction to Digital Archives	Familiarizes students with the uses and challenges of digital archives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		

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HTY	464	Postmodern Mexico	Challenges historical myths about the evolution of the nation state and calls into question that globalization and transnationalism are only recent phenomena of the postmodern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G & H	Pre-requisite: ENG 102, 105, 108 or 112 with C or better
HTY	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
HTY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		Pre-requisites: HTY 301 with C or better or currently enrolled; Senior academic level
HTY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
HTY	530	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 430, may not enroll in HTY 530
HTY	535	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 435, may not enroll in HTY 535
HUD	161	Graphic Communication	Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Pre-Housing & Community Development student
HUD	201	Introduction to Housing and Urban Development	Perspectives and issues concerning HUD. Guest lectures by interdisciplinary faculty and private, public, and non-profit practitioners.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	301	Housing and Community Design and Development	Single- and multifamily housing, residential neighborhoods, and planned communities. Affordability in owner-occupied and rental housing. First-time, move-up, and adult markets.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	302	Housing Production Process	Development feasibility analysis, finance, contracts, land acquisition, community and permit presentation and negotiation, scheduling, cost control, marketing, and sales.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	361	Housing and Urban Development Studio I: Residential Design and Development	Affordable residential design, development, and production process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisite: Must be Housing & Urban Developmnt BSD student; Co-requisites: HUD 301 and HUD 363
HUD	362	Housing and Urban Development Studio II: Community Design and Development	Neighborhood and new community design and development process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Must be Housing & Urban Developmnt BSD student; Must have completed HUD 301, HUD 361 and HUD 363 with a grade of C or greater or be currently enrolled; Co-requisite: HUD 364
HUD	363	Housing and Urban Development Seminar I: Residential Design and Development	Affordable residential design, development, and production process.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Housing & Urban Developmnt BSD student; Co-requisites: HUD 301 and HUD 361
HUD	364	Housing and Urban Development Seminar II: Community Design and Development	Neighborhood and new community design and development process.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Housing & Urban Developmnt BSD student; Must have completed HUD 301, HUD 361 and HUD 363 with a grade of C or greater or be currently enrolled; Co-requisite: HUD 362
HUD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
HUD	401	Assisted Housing	Publicly subsidized and nonprofit housing. Policy, implementation, and administration. FHA, Section 8, FmHA, projects and scatter site, and tax considerations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	402	Community Revitalization: Problems and Strategies	Public policy and strategies for neighborhood revitalization and community renewal. Preservation and adaptive reuse, gentrification, neighborhood safety, and related socioeconomic concerns.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	403	Advanced Topics in Housing and Urban Development	Varying topics, such as manufactured housing, homelessness, mortgage and finance in housing, housing abroad, marketing housing, and sustainable community development.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	461	Housing and Urban Development Studio III	Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction, cost management, and marketing.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Must be Housing & Urban Developmnt BSD plan; Must have completed HUD 302 with a C or greater or be currently enrolled or co-enrolled; Must have completed HUD 463 with a C or greater or be currently enrolled or co-enrolled
HUD	462	Housing and Urban Development Studio IV: Neighborhood Revitalization Process	Housing rehabilitation, neighborhood revitalization, and urban infill. CDBG, empowerment-enterprise zoning, code enforcement, citizen participation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Must be Housing & Urban Developmnt BSD student; Must have completed HUD 364 with a grade of C or greater; Must have completed HUD 401 with a grade of C or greater or be currently enrolled; Co-requisites: HUD 402 and HUD 464

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HUD	463	Housing/Urban Dev Seminar III	Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction and cost management, and marketing.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Housing & Urban Developmnt BSD student; Must have completed HUD 364 with a grade of C or greater or be currently enrolled; Must have completed HUD 302 with a grade of C or greater or be currently enrolled; Co-requisite: HUD 461
HUD	464	Housing and Urban Development Seminar IV: Neighborhood Revitalization Process	Housing rehabilitation, neighborhood revitalization, and urban infill. CDBG, empowerment-enterprise zoning, code enforcement, citizen participation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Housing & Urban Developmnt BSD student; Must have completed HUD 364 with a grade of C or greater; Must have completed HUD 401 with a grade of C or greater or be currently enrolled; Co-requisites: HUD 402 and HUD 462
HUD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Housing & Urban Developmnt BSD student
HUD	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
HUD	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
HUD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
HUD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
HUM	502	Writing Cultures	Theories and methods of representing Western and non-Western cultures in literature, history, ethnography, and pictorial media.	N	LEC	N	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		
HUM	503	Research and Writing in the Humanities	Systematic training in humanistic research and writing with particular attention to the interdisciplinary study of culture.	N	SEM	N	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	513	Interpretation of Cultures	Methodologies and comparative theories for the study of relationships among various aspects of culture, the history of ideas, and the arts. May be repeated for a total of 6 semester hours when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		Pre-requisite: Must be a Graduate student.
HUM	530	Pop Culture America		Y	LEC	Y	CNV	Liberal Arts and Sciences	Division of Humanities T	3.		
HUM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Division of Humanities T	1.		
HUM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	413	Comedy: Meaning and Form		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

Subject	Catalog Nbr	Course Title Long	DescrLong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IA	102	Wood Turning		Y	LEC	Y	CNV	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
IAP	101	Art, Artist, and Culture	Provides an approach to art, creativity, and culture in global, historical, and contemporary contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAP	102	Foundations I: Performance Techniques and Composition	Focuses on practice-based studies of contemporary presentational strategies and techniques.	N	STO	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	103	Foundations I: Interdisciplinary Digital Media	Digital media studies and application of contemporary artists, processes, and presentation practices in Interdisciplinary arts.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	104	Foundations I: Fundamentals of Sound Art	Investigates late 20th- and 21st-century sound art and our relationship with it.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	105	Foundations I: Fundamentals of Interdisciplinary Art	Focuses on contemporary aesthetic concepts and language for interdisciplinary arts application.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	CS	
IAP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	201	Introduction to Interdisciplinary Arts	Considers interdisciplinarity in practical terms in all art forms. Also considers antecedents and cross-cultural issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAP	202	Perspectives on Interdisciplinary Arts and Performance	Social, cultural, and historical examination of interdisciplinary art and performance and a survey of current interdisciplinary work and approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:Must have completed IAP 201 with a D or better
IAP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	301	Energetic Systems of Art: Collaboration in the Arts	Identifies and explores the energetic systems at work in the creation, performance, and perception of art.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	302	Cross-Cultural Perspectives on the Arts	Social and cultural perspectives of art and performance through a survey of historical and contemporary attitudes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	303	Artists and the Contemporary American Experience	Explores the life of the contemporary American artist with respect to individuality, pluralism, gender, race, ethnicity, and regionalism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	304	Traditions of the Avant-Garde and Experimental Art	Surveys 20th-century art movements and isms, including futurism, dada, surrealism, constructivism, realism, the Bauhaus, abstract expressionism, minimalism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	305	20th and 21st Century Art, Performance, and Media	Surveys artists, movements, and trends in the arts with an emphasis on interdisciplinary performance, media, and technology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	306	Extended Traditions in Drawing	Explores alternative methods of rendering the drawn image. Emphasizes incorporating other art forms to inform students' individual work.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	307	Art and War	Global interdisciplinary survey of the range of work created by artists in response to war, through time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
IAP	310	Women in Art	Cultural, historical, and social issues relating to the seeming scarcity of women artists and changing social contexts for women artists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	321	Music Composition I	Study and implementation of specific compositional theories and procedures. May be repeated for credit when topics vary. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: mus be in Plan ASIAPBA
IAP	322	Multitrack Digital Recording	Introduces students to theory and practice of Musical Instrument Digital Interface (MIDI) technology.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Pan ASIAPBA
IAP	323	Music and the Visual Arts	Histories and theories of music and visual arts with emphasis on convergences within 20th-century avant-garde traditions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	324	The Voice and Performance	Involves all aspects of the human voice, including research, creation, and performance.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	325	Sound Performance: Exploring Alternative Performance Groups	Utilizes innovative sound ensembles to explore all aspects of sound and its place in various art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	331	Performance, Acting, and the Individual	Explores the concepts of the self, the subject, and the author as each pertains to the solo artist.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	332	Technical Production for Interdisciplinary Arts	Develops basic technical knowledge and application of fundamental stagecraft techniques used in the creation and presentation of performance works. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites:must be in Plan ASIAPBA
IAP	333	Directing for Performance	Explores various strategies for performance. Emphasizes nontraditional staging and performance.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	334	Conceptual Development in the Arts	Conceptual development processes in the arts from initial idea to formal project proposals, grants, and production plans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Interdisciplinary Arts and Performance student
IAP	335	Vocalization and Movement	Study, application, and coordination of vocal projection techniques with bodily movement competencies in presenting original and existing contemporary performance works.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	347	Movement in Education	Theory and practice of teaching dance and creative movement in schools, K-12. Open to all students.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

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IAP	351	Concept, Image, and Text	The generation of images and metaphors using various media and visual stimuli.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	352	Seeing and Drawing	Develops drawing and seeing skills that are important not only to visual arts but also to music, dance, and theatre.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	354	Visual Representation	Explores materials, processes, and aesthetic concepts of art making through various media with readings on cultural perspectives and contemporary theory.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Interdisciplinary Arts and Performance student
IAP	355	Illusion and Vision	Inquiry into 2-D surfaces for visual representation and personal expression; includes readings on color theory, visual perception, and historical/cultural patterns.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	356	Spatial Impressions	Investigates 3-D forms, the processes and concepts of physicality, and the environment with readings on spatial perception and cultural objects. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN ASIAPBA
IAP	360	IAP Laboratory	Provides instructor-student contact time focusing on the technical instruction of media and technology applications.	Y	LAB	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		
IAP	361	Digital Editing and Media Literacy	Investigates the approaches used in digital editing with a focus on interactivity, graphics, audio, and desktop video. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	CS	Pre-requisites: must be in PLAN ASIAPBA, or ASACOBBS
IAP	363	Sound, Image, and Media	Interdisciplinary arts projects for experimental approaches to relating sound and visual image, accompanied by survey of historical and contemporary material. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	364	Documentaries	Media arts projects exploring new and experimental forms of visualization based upon an interdisciplinary survey of historical and contemporary examples. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN ASIAPBA
IAP	365	Digital Interactivity	Combines graphics, video, and animation with digital authoring tools for creation of interactive multimedia Web sites. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan: ASIAPBA OR Plan: ASACOBBS
IAP	368	Digital Graphic Technologies	Employs technology used in contemporary graphic designs to design concepts and techniques for modeling and representation applications.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	371	Verbal Art	Examines varieties of verbal art in everyday life, literature, oral and literate cultures. Considers diverse cultural forms and values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	373	The Critical Artist	Focuses on artists' critical thought, theorizing, and representation of art across disciplines and genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	421	Composition: Process, Technique, and Style II	Advanced study of specific compositional theories and procedures; in-depth analysis of individual work. Fee.	N	LEL	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN: ASIAPBA
IAP	422	Contemporary Orchestration Practices	Traditional and experimental scoring techniques for small and large ensembles using MIDI technology, digital samplers, and traditional instruments. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	431	Perspectives on Performance and Acting	Focuses on the interaction of the performer with media, alternative stagings, and collaboration with other performers.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN: ASIAPBA
IAP	433	Directing Workshop	Applies experimental directorial techniques to presentations and deconstruction of classical works including European and cross-cultural traditions.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	434	Production Laboratory	Develops original scripts into showcase productions. Students function as theatrical ensemble, participate in all phases of performance and production values. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	441	Movement for Performance	Explores the relationship of movement as it relates to performance, both historically and cross-culturally.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	442	Movement and Music	Surveys ways artists have brought together movement and music in artistic creations in various disciplinary and interdisciplinary contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	452	Elements of Painting	Develops painting skills and personal artistic vision through projects stimulated by other art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	454	New Directions in Painting	Develops painting skills and personal artistic vision through projects stimulated by other art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	457	Urban Narrative	Conceptually based studio focusing on artists' voices in contemporary urban environment with readings on spatial perception and cultural objects. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	464	Media and Diversity	Interdisciplinary art projects exploring identity, perception, and technologies from a basis of class, race, ethnicity, gender, sexuality, and ecology.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	465	Media Technologies and the Arts	Practical explorations of media arts interrelated with cultures, society, and technology, addressed through readings, discussion, research, and student arts projects.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	466	Digital Interactivity, Advanced	Advanced multimedia authoring skills for creation of interactive works in DVD, CD ROM, and other media formats. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA OR PLAN: ASACOBBS

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IAP	467	Acoustic Ecology	Investigations into the relationship between audio art and ecology; covers field recording, oral histories, digital editing, and designing audio Web site and databases. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	468	Digital Graphic Applications	Targeting, planning, design, authoring, development, and presentation of professional digital media graphics for Internet and print.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN:ASIAPBA OR PLAN:ASACOBS
IAP	469	Advanced Audio Production	Engages advanced media students in the technical, logistical, and aesthetic concerns specific to audio in all forms of digital media. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	471	Language, Culture, and Performance	In-depth examination of language in myth, poetry, social and aesthetic performance genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	472	Theories of Arts and Performance	Key texts, thinkers, concepts, and approaches to the arts and performance.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	473	Aesthetic Research	Investigates how artists, in all disciplines and from different historical periods, conduct or participate in research.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	474	Art and Film	Focuses on film as an art form in relation to the arts through aesthetics, cinematic theory, period study.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	480	Senior Project	Capstone course. Students develop an exit project for the IAP degree under the guidance of an advisor. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3-6		
IAP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAP	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAP	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
IAP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
IAP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	220	Psychology, Multicultural Narratives, and Religion	Examines contemporary multicultural life narratives that explore diversity in America and the authors' constructions of psychological identity and religious values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: ENG 101 or 105 with C or better
IAS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAS	300	Adult Career Development	Analysis of sociological and economic factors of 21st-century work environments, integrated with a psychological understanding of adult development. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or SB	Pre-requisites: ENG 101 or 105 with C of better or Applied Science student
IAS	305	Work and Identity	Explores the relationship between work and identity, as well as the search for meaning in work across generations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
IAS	310	Women in Art	Cultural, historical, and social issues relating to the seeming scarcity of women artists and changing social contexts for women artists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater, or be currently enrolled, or co-enrolled with IAS310.
IAS	324	Existential Ethics	Ethical aspects of theistic and atheistic accounts of existentialist philosophy. Freedom and responsibility and their significance in human experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	340	Bioethics	Philosophical exploration of ethical issues in healthcare delivery and the life sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	401	Sacred Scriptures and Social Choices	Examines relationships among contemporary moral issues and the sacred scriptures to support choices at individual, group, and public levels.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
IAS	406	Moral Dilemmas	Philosophical analysis of moral dilemmas arising in professional and public settings. Ethical decision making in business, educational, human service, and scientific communities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better. Credit is allowed for only IAS 406 or PHI 406

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IAS	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
IAS	408	Feminist Ethics	Philosophical exploration of the theoretical and practical aspects of ethical issues affecting women from diverse feminist viewpoints.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	409	Eco-Community Ethics	Traces human interaction with the Earth from hunters and gatherers to the present day, examining groups who have lived within ecological constraints and limits.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	410	Evolution of Ideas	Investigates ideas (paradigms) and revolutions (paradigm shifts). Examines several topics from perspectives of science, arts, humanities, social sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better
IAS	411	History and Philosophy of Mathematics	Examines nature of mathematics from origins to present, revealed by its history and philosophy. Strong background in mathematics not required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	Credit is allowed for only IAS 411 or MAT 411
IAS	415	Life in the Universe	Examines the search for life in extreme environments on Earth and in remote locations beyond Earth.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAS	416	Black Holes and Beyond	Explores developments in understanding nature's most basic force-gravity-from Aristotelian concepts to modern theories of curved space-time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAS	420	Multicultural Autobiographies	Examines the human experience via autobiographies and personal narratives. Multicultural, literary, and psychological perspectives on individual lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: ENG 101 or 105 with C or better
IAS	430	Science and Religion	Examines evolving relationships between scientific thought and Western and Eastern religious thought. Explores cosmologies, worldviews, and epistemologies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
IAS	477	World Literature	Introduces world literature, mostly outside the United States and England.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisite: ENG 101 or 105 with C or better
IAS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
IAS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
IAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IBS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey MBA program students
IBS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey MBA program students
IDN	101	Elementary Indonesian I	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
IDN	102	Elementary Indonesian II	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites: IDN 101 with C or better
IDN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
IDN	201	Intermediate Indonesian I	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: IDN 102 with C or better
IDN	202	Intermediate Indonesian II	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: IDN 201 with C or better
IDN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
IDN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IDN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
IDN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
IED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
IED	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	401	Navajo Language and Culture I	History and culture are added components to the introduction of language reading, writing, and speaking. Emphasizes basic communication and appreciation of history and culture.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	403	Navajo Language and Culture II	Emphasizes communication, grammar, and sentence structures. Translations, reading, writing, and discussions of proper and slang language. Includes cultural activities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	410	History American Indian Educ	Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. Credit is allowed for only IED 410 or 510.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	SB & H & C	Pre-requisites: Students who have credit for IED 510, may not enroll in IED 410
IED	430	Lang/Literacy-Indig Peoples	Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective. Credit is allowed for only IED 430 or 530.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	(HU or SB) & C	
IED	433	Counseling the Indian Student	Techniques and methods used in counseling, with emphasis on understanding Indian cultures and values. Experimentation with new counseling concepts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	444	Govt Role-Native Ed Pol/Adm	Examines the interrelationship of federal Indian policy, federal/state/tribal law, and tribal sovereignty as they have shaped American Indian education. Analyzes administrative practices and personnel, program and fiscal management, and resources as they reflect the historic and present influence of this triad of factors. Credit is allowed for only IED 444 or 544.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	SB	
IED	460	Yaqui History and Culture	Yaqui history and culture ranging from precontact to the present. Larger themes of Yaqui identity, belief systems, family, traditions, community, resistance, dispersion, and survival.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	(HU or SB) & C & H	
IED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
IED	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
IED	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6	L	Pre-requisites: Must be an Honors student
IED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	497	Honors Colloquium		Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
IED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-7		
IED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
IED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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IED	510	History of American Indian Education	Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. Credit is allowed for only IED 510 or 410.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student. Students who have credit for IED 410, may not enroll in IED 510
IED	530	Language/Literacy-Indig People	Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective. Credit is allowed for only IED 530 or 430.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
IED	544	Govt Role-Native Ed Pol/Adm	Examines American Indian education and how it is impacted by the interrelationship of federal Indian policy, federal/state/tribal law, and tribal sovereignty. Credit is allowed for IED 544 or 444.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
IED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
IED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	407	Dine Education Philosophy	Assists preservice teachers in integrating Navajo educational philosophy Sá'ah Naaghái Bik'eh Hózhóon into educational instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.	HU & C	

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IED	413	Lang Arts-Methods/Mgmt/ Assess	Theory and practice on the social nature of oral and written language and the development of appropriate classroom practices for indigenous students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	414	Rdg Meth/Mgmt/Asmt-Indig Clsrm	Development of reading and phonics instruction, management, and assessment methods necessary for successful literacy development for indigenous students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	420	Science Methods, Management, and Assessment for Indigenous Classrooms	Develops and applies elementary science lessons accommodating multiple world views, including those of Native societies. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	422	Methods/Teach Indian Students	Philosophies, methodologies, and materials used in Indian education. Examines local and tribal classroom materials. Experimentation with new teaching concepts.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
IED	425	Methods of Teaching Navajo to Nonnative Speakers	Methods for teaching Navajo language immersion instruction in K-8 settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		Pre-requisites: Dine Teacher Education ITC admission.
IED	427	Meth Teach Navajo-Native Spkrs	Methods for teaching Navajo language immersion instruction in K-8 settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		
IED	455	Soc St Meth/Mgt/Asmt-Indig Cls	Examines methods, classroom management, and assessment for elementary social studies instruction for indigenous learners, while incorporating language and culture.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
IED	480	Math Meth/Mgt/Asmt-Indig Clsrm	Develops and applies elementary mathematics lessons incorporating learning styles and cultural perspectives.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	496	Field Experience: Classroom Management and Organization	Applies course content in indigenous classrooms. Emphasizes observation, management, and planning and delivering instruction. May be repeated for credit. fee	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		
IEE	100	Introduction to Engineering Design	Introduces industrial engineering design; teaming, the profession of engineering, computer models in engineering communication skills; quality and customer satisfaction. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	2.		Pre-requisites: Freshman or Sophomore standing
IEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-3		
IEE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		
IEE	210	Intro Industrial Engineering	History of IE: IE career paths; ethical, social, and contemporary issues; introduces IE techniques, methods, and their application; case studies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	2.		Pre-requisites: IEE 100 with C or better; MAT 265 (or MAT 270) with C or better
IEE	220	Business/Industrial Engr	Introduces business for industrial engineers, including business/financial structures, fundamentals of cost and accounting, role of business/engineering in society.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be a Pre-professional, BS or BSE student in the Ira A. Fulton College of Engineering AND earn a grade of C or better in CHE 100, IEE 100 or MSE 100 OR a grade of D or better in ECE 100;Must be sophomore status or higher
IEE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		
IEE	300	Economic Analysis for Engineers	Economic evaluation of alternatives for engineering decisions, emphasizing the time value of money.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Prerequisites: FSE BS/BSE OR Non Engrn with a min GPA of 3.00; MAT 265, 270 or 290 with a D or greater or currently enrolled; BME 100, CEE 100, CHE 100, CSE 101, ECE 100, EEE 101, IEE 100, MAE 100 or MSE 100 with a D or greater or be currently enrolled
IEE	305	Information Systems Engineering	Overview of computer and information systems applications. Topics include client/server; distributed computing; networks; process modeling; e-commerce; enterprise applications; Internet. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	CS	Pre-requisites: CSE 200 or 205 completed with a D or better or currently enrolled; Must either be an Engineering BS/BSE student or must be a Non-Engineering students with a minimum GPA of 3.00
IEE	368	Facilities Analysis and Design	Planning, analysis, and design of the tangible physical assets of the firm. Emphasizes facilities location, materials handling, automation, computer integration, and utilization of financial resources. Applications in diverse fields. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	L	Pre-requisites: IEE 300 completed with a grade of D or better or currently enrolled; Must be either an Engineering BS/BSE student or a Non-Engineering student with a minimum GPA of 3.00.
IEE	369	Work Analysis and Design	Planning, analysis, and design of methods of accomplishing work. Emphasizes human factors, work planning, methods analysis and design, and work measurement. Applications in diverse fields. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	L	Pre-requisites: Engineering BS/BSE students only and a grade of D or better or currently enrolled in IEE 300.
IEE	376	Operations Research Deterministic Techniques/Applications	Industrial systems applications with deterministic operations research techniques. Resource allocation, product mix, production, transportation, task assignment, networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: CSE 200 or CSE 205; MAT 242, 342, or 343
IEE	380	Probability and Statistics for Engineering Problem Solving	Applications-oriented course with computer-based experience using statistical software for formulating and solving engineering problems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	CS	Pre-requisites: Engineering student; MAT 266 or 271 with C or better
IEE	385	Engr Statistics - Probability	Designing statistical studies for solutions to engineering problems. Methods include regression, design and analysis of experiments, and other statistical topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering BS/BSE/MS/MSE/PHD student; IEE 380 with C or better or ECE 380 with D or better
IEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		
IEE	405	Developing Information Systems Applications	Analysis and design of distributed information system applications using object and relational architectures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering BS or BSE student

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IEE	431	Engineering Administration	Introduces quantitative and qualitative approaches to management functions, engineering administration, organizational analysis, decision making, and communication. Credit is allowed for only IEE 431 or 541.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be a senior Engineering BS/BSE student.
IEE	437	Human Factors Engineering	Studies the human psychological and physiological factors that underlie the design of equipment and the interaction between people and machines. Credit is allowed for only IEE 437 or 547.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering BS/BSE students OR Non Engineering students with a minimum GPA of 3.0
IEE	461	Production Control	Techniques for the planning, control, and evaluation of production systems. Project management, forecasting, inventory control, scheduling, enterprise requirements planning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering BS/BSE student AND have completed with a D or better IEE 376 or IEE 476 AND have completed ASE485, IEE 385 or IEE 485 with a grade of D or better AND have completed CSE 100 or CSE 110 with a grade of D or better.
IEE	463	Computer-Aided Manufacturing and Control	Computer control in manufacturing, CIM, NC, logic controllers, group technology, process planning, and robotics. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	CS	Pre-requisites: Must be an Engineering BS/BSE student with Junior or Senior standing
IEE	470	Stochastic Operations Research	Modeling and analysis with emphasis on stochastic operations research. Models for stochastic processes, including Markov chains, queueing and decision analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Industrial Engineering BSE student; IEE 376 completed with a C or better or currently enrolled; IEE 385 completed with a C or better or currently enrolled
IEE	474	Quality Control	Basic statistical process control techniques, capability analysis, design of experiments, and acceptance sampling plans.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Industrial Engineering BSE student and a grade of D or better in ASE 485, IEE 385 or IEE 485.
IEE	475	Simulating Stochastic Systems	Analyzes stochastic systems using basic queueing networks and discrete event simulation. Basic network modeling, shared resources, routing, assembly logic. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	CS	
IEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	490	Project in Design and Development	Individual or team capstone project in creative design and synthesis. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	L	Pre-requisites: Must be a senior Engineering BS/BSE student and have completed IEE 475 or be currently enrolled AND have completed with a grade of D or better IEE 376 or IEE 476.
IEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-6		Pre-requisites: Must be an Honors student.
IEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-6	L	Pre-requisites: Must be an Honors student
IEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		
IEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-7		
IEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-3		
IEE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	505	Information Systems Engr	Studies information systems application engineering. Topics include information technology, data modeling, data organization, process mapping, application and database engineering, and user interface development. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering graduate student.
IEE	511	Analysis of Decision Processes	Methods of making decisions in complex environments and statistical decision theory; effects of risk, uncertainty, and strategy on engineering and managerial decisions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering graduate student
IEE	512	Introduction to Financial Engineering	Introductory course on financial engineering covering traditional portfolio theory, forwards, futures, financial stochastic models, option pricing, and risk management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	520	Statistical Learning for Data Mining	Surveys data analysis methods for massive data sets and provides experience in analysis with computer software.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	530	Enterprise Modeling	Focuses on social, economic, and technical models of the enterprise with emphasis on the management of technological resources. Includes organization, econometric, financial, and large-scale mathematical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	532	Management of Technology	Topics include designing a technical strategy; technological forecasting; interfacing marketing engineering and manufacturing; designing and managing innovation systems; creativity; application of basic management principles to technology management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	533	Scheduling	Provides the basic theory of scheduling and introduction to the applications domain.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student

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IEE	534	Supply Chain Modeling/Analysis	Techniques for modeling and analysis of supply chains. Inventory management, transportation/location models, value of information, channel alignment, risk pooling, contracts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	535	Intro Intl Logistics Systems	Exploratory project-oriented course that addresses domestic and international logistics practices from a high-level descriptive perspective and an analytical model-based perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	541	Engineering Administration	Introduces quantitative and qualitative approaches to management functions, engineering administration, organizational analysis, decision making, and communication. Credit is allowed for only IEE 541 or 431.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student.
IEE	543	Cmptr-Aided Manufact/Control	Computer control in manufacturing, CIM, NC, logic controllers, group technology, process planning and robotics. Credit is allowed for only IEE 543 or 463.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	545	Simulating Stochastic Systems	Analyzes stochastic systems using basic queuing networks and discrete event simulation. Basic network modeling, shared resources, routing, assembly logic. Credit is allowed for only IEE 545 or 475.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student.
IEE	547	Human Factors Engineering	Study of people at work; designing for human performance effectiveness and productivity. Considerations of human physiological and psychological factors. Credit is allowed for only IEE 547 or 437.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	552	Strategic Technological Planning	Studies concepts of strategy, strategy formulation process, and strategic planning methodologies with emphasis on engineering design and manufacturing strategy, complemented with case studies. Presents and uses an analytical executive planning decision support system throughout course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student AND a grade of C or better or co-enrolled in IEE 545, IEE 561, or IEE 574.
IEE	553	Information Systems Assurances	Develops and applies engineering approaches to assuring the security of enterprise information systems, including principles of dependable information systems, technologies for information systems, intrusion detection, system response, and recovery.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student and have completed IEE 505 with a C or better or be currently enrolled.
IEE	560	Object-Oriented Info Systems	Applies object-oriented technology and concepts to enterprise information systems. Topics include requirement analysis, object-oriented design and programming, rapid application development, object data management, and development of object-oriented distributed applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student and have a grade of C or better in IEE 505 or be currently enrolled.
IEE	561	Production Systems	Understanding how factories operate, how performance is measured, and how operational changes impact performance metrics. Operational philosophies, increasing production efficiency through quantitative methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student.
IEE	562	Computer-Aided Mfg-CAM Tools	Current topics in automation, distributed control, control code generation, control logic validation, CAM integration, CAD/CAM data structures, planning for control systems. Topics vary by semester.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student and have completed IEE 463 or IEE 543 with a grade of C or better or be currently enrolled.
IEE	563	Distributed Info Systems	Introduces concepts and technologies that form the core of distributed enterprise information systems. Topics include client-server architectures, distributed objects and paradigms, Internet, World Wide Web, distributed information sharing, network programming, and e-commerce and enterprise applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS/MSE/PHD student; IEE 505 with C or better
IEE	564	Planning -Cmptr-Integrated Mfg	Theory and use of IDEF methodology in planning for flexible manufacturing, robotics, and real-time control. Simulation concepts applied to computer-integrated manufacturing planning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	565	Cmptr-Integrated Mfg Research	Determination and evaluation of research areas in computer-integrated manufacturing, including real-time software, manufacturing information systems, flexible and integrated manufacturing systems, robotics, and computer graphics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student AND a grade of C or better in IEE 564.
IEE	566	Simulation in Manufacturing	Uses simulation in computer-integrated manufacturing with an emphasis on modeling material handling systems. Programming, declarative, and intelligence-based simulation environments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 475 or 545 with C or better
IEE	567	Simulation System Analysis	Simulation modeling of processes involving discrete and continuous system components. Topics include random number generators, output analysis, variance reduction, and statistical issues related to simulation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 475 or 545 with C or better
IEE	570	Advanced Quality Control	Process monitoring with control charts (Shewhart, cusum, EWMA), feedback adjustment and engineering process control, process capability, autocorrelation, selected topics from current literature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	571	Quality Management	Total quality concepts, quality strategies, quality and competitive position, quality costs, vendor relations, the quality manual, and quality in the services.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student

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IEE	572	Design Engineering Experiments	Analysis of variance and experimental design. Topics include strategy of experimentation, factorials, blocking and confounding, fractional factorials, response surfaces, nested and split-plot designs.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	573	Reliability Engineering	Nature of reliability, time to failure densities, series/parallel/standby systems, complex system reliability, Bayesian reliability, and sequential reliability tests.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	574	Appl Deterministic Oper Rsch	Develops advanced techniques in operations research for the solution of complex industrial systems problems. Goal programming, integer programming, heuristic methods, dynamic and nonlinear programming.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Industrial Engineering MS, MSE or PhD student
IEE	575	Appl Stochastic Oper Rsch Mdls	Formulate and solve industrial systems problems with stochastic components using analytical techniques. Convolution, continuous-time Markov chains, queues with batching, priorities, balking, open/closed queuing networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	576	Analy Semiconductor Mfg Oper	Applies operations research and statistical methods to solve problems that involve semiconductor manufacturing operations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	577	Adv Information System Oper	Industrial engineering knowledge and skills for information system operations, including aspects (security, quality of service, user interface, information modeling), problems, and solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 505 with C or better
IEE	578-M	Regression Analysis	Regression model building oriented toward engineers and physical scientists. Topics include linear regression, diagnostics, biased and robust fitting, nonlinear regression.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	579	Time Series Analy/forecasting	Forecasting time series by regression-based, exponential smoothing, and ARIMA model techniques; uses digital computer programs to augment the theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	581	Six Sigma Methodology	The six sigma process improvement strategy of define, measure, analyze, improve, and control (DMAIC). Integrates and deploys statistical methods and other six sigma problem solving via the DMAIC framework.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	582	Response Surfaces/Process Opt	Classical response surface analysis and designs including steepest ascent, canonical analysis, and multiple responses. Other topics include process robustness studies, robust design, and mixture experiments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD; IEE 572 with C or better
IEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	585	Six Sigma Capstone.	The DMAIC (define, measure, analyze, improve, control) improvement strategy is applied in the formulation and execution of a six sigma project.	N	PRA	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		Pre-requisite: Industrial Engineering MS, MSE or PHD student
IEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1.		
IEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		Pre-requisite: Engineering Graduate student
IEE	599-M	Thesis		Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		

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IEE	620	Optimization I	First course of the PhD-level deterministic course series. Covers foundations of optimization and linear programming. Prior working knowledge of linear algebra and knowledge of how to formulate linear programs is required for this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	670	Mathematical Statistics	Introduction to the field of mathematical statistics at a level intended for first-year PhD students in Industrial Engineering. Builds a solid background in the principles, concepts, and techniques of mathematical statistics. Prepares students for advanced study and research in statistics, and is useful for understanding statistical data analysis techniques and developing statistical thinking. Completion of at least one course in probability and statistics is required prior to taking this class.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	672	Adv Topics-Experimental Design	Multilevel and mixed-level factorials and fractions, design optimality, incomplete blocks, unbalanced designs, random effects and variance components, analysis of covariance.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 572 with C or better
IEE	677	Regression/Genrlzd Linear Mod	Theory of linear models including least squares, maximum likelihood, likelihood-based inference. Generalized linear models including Poisson and logistic regression, generalized estimating equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 578 with C or better
IEE	679	Time Series Analy/Control	Identification, estimation, diagnostic checking techniques for ARIMA models, transfer functions, multiple time series models for feedback and feedforward control schemes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 579 with C or better
IEE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		Pre-requisite: Industrial Engineering MS, MSE or PHD student
IEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-15		
IEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1.		
IEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-15		
IMD	564	Multimedia Applications in Instruction	Utilizes various forms of multimedia and authoring software to create materials and instruction. fee	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	566	Assessment and Evaluation of Media Applications	Examines a variety of strategies in assessing learning, collecting and evaluating data, and evaluating technology resources for classroom integration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	574	Organization and Administration of School Library Media	Explores the role of the school library media specialist and program as it relates to the educational community.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	576	Social and Ethical Issues in Educational Media	Examines the social, ethical, legal, and human issues surrounding the use of technology in K-12 schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
IMD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

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IMD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
IMD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
IMD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
IMD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
IMD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
IMD	572	Media Collection and Development	Explores the identification, selection, acquisition, and evaluation of a collection of library resources for a specific community of users.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IND	120	Drawing for Industrial Design	Drawing as language to explore and communicate ideas. Development of drawing aptitude as language and process for industrial design thinking.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Industrial Design student
IND	121	Principles for Industrial Design I	Industrial design as a language and process for creative thinking and realization.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Industrial Design student; Co-requisite: IND 122
IND	122	Principles for Industrial Design II	Continued exploration of industrial design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Industrial Design student; Co-requisite: IND 121
IND	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
IND	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	227	Visual Methods for Problem Solving	Introduces conceptual design activity based on the mind-eye-media feedback loop. Graphic language used to represent conjecture, analysis, synthesis of objects, and their contexts.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Industrial Design student, Must have completed IND 122 with a grade of C or greater or be currently enrolled
IND	228	Imaging and Visualization	Design activities stressing graphic language abstraction practiced for presentation. Discusses structure of criticism, including description, interpretation, and evaluation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Industrial Design student; Must have completed IND 227 with a grade of C or greater or be currently enrolled
IND	236	Intro Cmpt Model-Indust Dsgn	Computers in industrial design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Industrial Design student
IND	242	Materials and Design	Materials application in design. Introduces characteristics and properties of metals and organic materials, including plastics, and inorganic materials.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	243	Design for Ecology and Social Equity	Explores the role of design in the ecological crisis; materials, processes, strategies and methods to design more ecologically friendly and socially equitable products.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	260	Industrial Design I	Introduces the method and process of the industrial designer. Determinants necessary in small product design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Industrial Design student; Must have completed IND 122 with a grade of C or greater or be currently enrolled
IND	261	Industrial Design II	Issues of physical form development related to product and design; form development properties of paper, fibers, wood, metal, and plastics.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Industrial Design student; Must have completed IND 260 with a grade of C or greater or be currently enrolled
IND	316	20th-Century Design I	Modern European and American design from 1900 to 1940. Emphasizes transportation, product, furniture, exhibition, and graphic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	
IND	317	20th-Century Design II	Modern European, Asian, and American design since 1940. Emphasizes transportation, product, furniture, exhibition, and graphic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	
IND	327	Presentation Graphics	Studies methods for portfolio and professional product presentation using graphic media for information transfer. Stresses aesthetic judgment, organization, and craftsmanship.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Must be Industrial Design BSD student
IND	328	Graphics for Industrial Design	Investigates and applies applications and planning to the development of an identity for a product line structured as a system.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Industrial Design BSD student; Must have completed IND 327 with a grade of C or greater or be currently enrolled
IND	344	Human Factors in Design	Man-machine environment systems; human characteristics and behavior applied to design of products, systems, and their operating environment.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	354	Principles of Product Design	Influences of physical and mechanical concepts in product design; mechanisms, kinematics, and fastening systems. Concepts of analysis for product design. Influences of concepts on aesthetics.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Pre-Industrial Design or Industrial Design BSD student; PHY 111 with C or better

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IND	360	Industrial Design III	Methods of visual thinking, conceptualization, and ideation related to building skill levels in professional design presentation techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Must be Industrial Design BSD student
IND	361	Industrial Design IV	Emphasizes developing ideas into a complete functional product, including survey and application of aesthetics, human factors, materials, and manufacturing. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Must be Industrial Design BSD student; Must have completed IND 360 with a grade of C or greater or be currently enrolled
IND	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	460	Design Project I	Complete analysis of the product unit as an element of mass production, featuring marketing, technology, human factors, and visual design. Emphasizes professional standards. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Must be Industrial Design BSD student; Must have completed IND 361 with a grade of C or greater or be currently enrolled; Co-requisite: IND 484
IND	461	Design Project II	Product design, with emphasis in systems interaction. Culmination of design process and technique. Encourages individual project direction. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Must be Industrial Design BSD student; Must have completed IND 460 with a grade of C or greater or be currently enrolled
IND	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
IND	465	Collaborative Design Dev II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
IND	470	Professional Practice for Industrial Design	Business procedures, management techniques, accounting systems, ethics, and legal responsibilities of the design professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	L	Pre-requisites: Must be Industrial Design BSD student; Seniors or Post Bacc Undergrads only
IND	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Must be Industrial Design BSD student; Must have completed IND 361 with a grade of C or greater or be currently enrolled; Co-requisite: IND 460
IND	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
IND	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
IND	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
IND	548	Design for Sustainable Development	Research on designing systems that are economically viable, ecologically friendly, and socially equitable.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
IND	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	111	Interior Design Issues and Theories	Interiors issues, theories, and philosophies. Emphasizes unique social and cultural factors that shape 20th-century design concepts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	
INT	120	Design Drawing and Media	Visual thinking: Development of freehand drawing techniques as a language and tool to explore, communicate, and process ideas.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be Pre-Interior Architecture student

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
INT	121	Introduction to Computer Modeling for Interior Design	Computers in interior design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	CS	
INT	123	Introduction to Computer-Aided Design of Built Environments	Introduces AutoCAD computer-aided design principles and strategies for designers of the built environment.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	131	Design and Human Behavior	Applies conceptual design to issues of programming and space planning, user needs, and behavior.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	SB	
INT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
INT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	221	Principles of Design	Applied visual vocabulary: studio experience exploring applications, process and conceptual development of the principles of order and composition.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Pre-Interior Design student; INT 120 with a C or better or currently enrolled; Co-requisite: INT 222
INT	222	Principles of Design Lecture	Applies the visual vocabulary: explores the principles of organization through examination of historical precedence and contemporary interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisites: Pre-Interior Design student; Co-requisite: INT 221
INT	223	Drafting for Interior Design	Orthographic, paraline, axonometric, and perspective projection; shades and shadows; and basic descriptive geometry for interior designers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Pre-Interior Design student; Pre- or Co-requisite INT 123 (if completed must be with a grade of C or greater)
INT	238	Intro to CAD	Introduces AutoCAD computer-aided design principles and strategies for designers of the built environment. Lecture, lab.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	253	Interior Materials, Finishes, and Specifications	Survey, evaluation, and specification of materials, finishes, and performance criteria for interiors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Pre-Interior Design student; Co-requisite: INT 261
INT	261	Interior Design Studio I: Residential	Studio problems in interior design related to behavioral response in personal and small-group spaces.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: INT 121, INT 123 and INT 221 with D or better or currently enrolled
INT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	310	History of Interior Design I	Design of interior spaces as an expression of cultural influences to 1835.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	Pre-requisites: ARS 102 with C or better
INT	311	History of Interior Design II	Design of interiors as an expression of cultural influences from 1835 to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	Pre-requisites: Must have completed INT 310 with a grade of C or greater or be currently enrolled
INT	341	Interior Codes: Public Welfare and Safety	Codes and regulations as performance criteria for interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	2.		Pre-requisites: Admission to upper-division program. Corequisites: INT 352, 362, 381
INT	351	Ambient Environment	Surveys environmental control systems, acoustics, and lighting issues.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Co-requisite: INT 363
INT	352	Construction Methods in Interior Design	Design theory related to analysis, materials, and building techniques of horizontal and vertical construction in interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design upper-division student; Co-requisites: INT 341, INT 362 and INT 381
INT	354	Construction Documents	Elements of construction drawing sets, application of codes and specifications, and contract administration.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	362	Interior Design Studio II: Hospitality and Retail	Investigates interior design issues in hospitality and retail environments. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design upper-division student; Co-requisites: INT 341, INT 352 and INT 381
INT	363	Interior Design Studio III	Explores the poetics of materials and their assemblage in the design of public and private spaces. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design BSD student; INT 362 with a C or better or currently enrolled
INT	364	Interior Design Studio I	Studio problems in interior design related to behavioral response in personal and small group spaces. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		
INT	381	Preinternship Seminar	Preparation of internship materials that produce and enhance a successful internship experience.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisites: Must be one of the following plans: Urban Planning BSD, Landscape Architecture BSLA, Graphic Design BSD, Interior Architecture BSD, Architectural Studies BSD, Housing & Urban Development BSD or Alndustrial Design BSD
INT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	412	History of Decorative Arts in Interiors	Design of decorative arts as an expression of cultural influences and as an extension of interior spaces.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	Pre-requisite: INT 311 with C or better
INT	413	History of Textiles in Interior Design	Cultural and historical expression of textiles as related to interiors.	N	FLD	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: INT 412 with C or better
INT	446	Furniture Design and Production	Design, construction, cost estimating, and installation in interior furniture and millwork.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design BSD, Interior Architecture BSD or Industrial Design BSD student
INT	464	Interior Design Studio IV: Work Environments	Studio problems in interior design-related issues in work environments. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Must be Interior Architecture BSD student; Must have completed INT 363 with a grade of C or greater or be currently enrolled; Co-requisite: INT 484
INT	465	Interior Design Studio V: Institutional Design	Advanced interior design problem solving related to institutional facilities. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design BSD student; INT 464 with a C or better or currently enrolled
INT	471	Facilities Management	Facility management process in large-scale organizations. Planning, long-range forecasting, and productivity. Project management methodologies using micro-based software programs.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Must be either Interior Design BSD or Design Studies BA student
INT	472	Professional Practice for Interior Design	Business procedures, project control, fee structures, and professional product liabilities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	2.		Pre-requisites: Interior Design BSD student; Must be either a senior or a Post Bacc Undergrad student
INT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Interior Architecture BSD student; DSC 483 or INT 381 with Y grade
INT	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
INT	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student

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INT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
INT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
INT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IPO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
IPO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
IPO	494	International Program Courses	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	598	International Program Courses	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	495	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		

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IPO	495	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
IPO	496	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
IPO	496	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
IPO	596	International Programs	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
ITA	101	Elementary Italian I	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	102	Elementary Italian II	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	111	Accelerated Elementary Italian	Accelerated elementary Italian for experienced language learners. Emphasizes reading, writing, listening, speaking, and cultural proficiency.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ITA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	201	Intermediate Italian I	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on both spoken and written genres of Italian culture. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ITA	202	Intermediate Italian II	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on values of Italian culture. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ITA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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ITA	311	Italian Conversation	Engages students in different oral/aural activities to reach an advanced proficiency level.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 202 with C or better
ITA	312	Italian Composition and Conversation	See ITA 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 202 with C or better
ITA	315	Italian Civilization	Students read and analyze texts and artifacts that represent important cultural and political movements of Italian civilization.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites:ITA 311, 312 with a grade of D or better, or enrolled, or ITA 314 with D or better or enrolled
ITA	319	Italian for Professions	Read and analyze texts and artifacts that represent important cultural and political movements of Italian civilization.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ITA 202 with C or better
ITA	321	Introduction to Italian Literature I	Studies the development of early Italian language, literature, and culture through reading, discussion, and writing activities in Italian.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	322	Introduction to Italian Literature II	Studies the development of modern and contemporary Italian language, literature, and culture through reading, discussion, and writing activities in Italian.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: ITA 202 with C or better
ITA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	413	Advanced Italian	Development and assessment of advanced spoken and written Italian proficiency through activities using all four skills.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 311 or 312 with C or better
ITA	420	Italian Cinema	Major trends of Italian cinema from the post-war period to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	425	Italian American Culture	Analyzes representations of Italian American history and culture in several media including literature, film, and television.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	
ITA	430	Italian Literature of the Middle Ages	Emphasizes Stil Novo, Dante's minor works, Petrarch, and Boccaccio.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	441	Dante: Divina Commedia	Critical reading of the three Cantiche (Inferno, Purgatorio, and Paradiso).	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	443	Italian Literature of the Renaissance	Emphasizes Lorenzo de'Medici, Poliziano Castiglione, Machiavelli, Ariosto, and Tasso.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	446	Italian Literature of the 18th and 19th Centuries	Goldoni, Parini, Alfieri, the poetry of Foscolo and Leopardi, and the sociohistorical novels of Foscolo, Manzoni, and Verga.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	449	20th-Century Italian Literature	Major works, figures, and movements of contemporary Italian literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ITA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
ITA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
ITA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ITA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ITA	594	Conf And Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	101	Elementary Italian I	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.		
ITA	102	Elementary Italian II	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.		
ITA	201	Intermediate Italian I	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on both spoken and written genres of Italian culture. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.	G	

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ITA	202	Intermediate Italian II	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on values of Italian culture. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.	G	
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JHR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	501	Proseminar in Social Justice and Human Rights	Classical and contemporary theories of social justice and human rights in the context of current local, national, and international issues. Special reference made to the roles of both governmental and nongovernmental organizations in addressing social justice and human rights issues.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	510	Problem-Based Seminar in Social Justice and Human Rights	Interdisciplinary seminar examines current problems in social justice and human rights from several different theoretical and analytical viewpoints. May be repeated once for credit.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	511	Community-Embedded Seminar in Social Justice and Human Rights	Interdisciplinary seminar requiring students to be placed in community organizations dealing with the course issue during the semester. Emphasizes developing effective strategies for partnerships with relevant community organizations and evaluating institutional settings, policies, and procedures from the perspective of social justice and human rights.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	525	Action Research in Social Justice and Human Rights	Advanced practicum in engaged, community-embedded research and interpretive analysis. Gives students experience in the practice of engaged fieldwork as well as the writing it generates.	N	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		

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JHR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1.		
JHR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
JHR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JMC	101	Grammar for Journalists	Grammar course specifically designed to help journalism majors master the essentials of grammar. All majors must achieve an 80 percent in the course, indicating a mastery of grammar, before they can move on to any other journalism courses. A test is offered during the first week of each semester's class so that students who feel they already have a mastery of grammar may attempt to test out.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	1.		Pre-requisite: Journalism and Mass Communication student
JMC	201	News Reporting and Writing	Basic news reporting and writing techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.	L	Pre-requisites: ENG 102, 105 or 107 and JMC 110 (or MCO 120) with C or better; JMC major; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA
JMC	320	Newscast Producing	Supervising editorial content of the television newscast. Focuses on writing, use of graphics, and video. Students learn how to design, write, and supervise the television newscast. In practical lab experience, students produce a live 30-minute television newscast airing in greater Phoenix. As must be current on news of the day both locally and nationally, and be prepared to supervise other students in the news-gathering process.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: Journalism major with a 2.50 GPA or higher; completed with a C or better JMC 315 AND JMC 425 or co-enrolled in JMC 315 and JMC 425
JMC	325	Multimedia Reporting	Gives students practical experience working in an online, multimedia environment. Helps sharpen skills and gives them a real-world view of how journalism works in the 21st century.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		
JMC	325	Multimedia Reporting	Gives students practical experience working in an online, multimedia environment. Helps sharpen skills and gives them a real-world view of how journalism works in the 21st century.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	460	Advanced Online Media	Covers online trends, Web design and usability, and copyright; legal, and ethical issues facing online journalists. Students critically examine journalistic Web sites and recognize excellence as well as mediocrity. Hands-on experience in using Photoshop, Dreamweaver, CSS, Soundslides, Final Cut, and Flash to produce original, compelling multimedia stories as well as an award-winning online magazine.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: Journalism and Mass Communication student; JMC 425 with a C or better or currently enrolled; 2.50 minimum cumulative GPA OR Graduate Mass Communication students
JMC	473	The Business and Future of Journalism	Exposes advanced journalism students to broad media management problems; helps students understand how essential the bottom-line and quality journalism are to the entire journalistic enterprise; helps students think about how to balance those two concerns.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: Journalism student; minimum cumulative GPA of 2.5; JMC 201 with C or better
JMC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	1-7		Pre-requisites: JMC student; Minimum 2.25 GPA; Successful completion of English proficiency exam OR Graduate Mass Communication student

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JMC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	1-3		
JMC	110	Principles and History of Journalism	Organization, function, and responsibilities of the media and adjunct services. Primary emphasis on newspapers, radio, television, and magazines. Credit is allowed for only JMC 110 or MCO 120.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	SB	Pre-requisites: Journalism & Mass Communication student
JMC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-4		Pre-requisite: Journalism and Broadcasting student
JMC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-4		
JMC	301	Intermediate Reporting and Writing (Print)	Intermediate news reporting and writing techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	L	Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	310	Public Relations	Theory and practice of publicity, public relations, and related techniques and procedures.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	313	Introduction to Editing	Copyediting and headline writing. Electronic editing on personal computer terminals. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism and Mass Communication student; 2.50 minimum cumulative GPA; JMC 301 with a C or better or currently enrolled
JMC	315	Intermediate Reporting and Writing (Broadcast)	Intermediate broadcast news reporting and writing techniques with emphasis on audio. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	L	Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	330	Television Reporting	Writing, reporting and editing for television. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 315 and JMC 345 with C or better
JMC	332	Electronic Media Programming	Programming theory and evaluation, regulation, ethics, and responsibilities and basics of audience psychographics and effects.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; JMC 200 (or MCO 200) with C or better; Minimum 2.50 GPA
JMC	336	Station Operations	Basic understanding of the operations of a broadcast station. Examines internal organization structure and the relationship between each department.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 200 or MCO 200 with C or better
JMC	345	Videography	Develops an understanding of visual storytelling and how to craft a good, compelling story with pictures and sound. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA; JMC 201 with C or better
JMC	351	Photojournalism I	Basic camera, lighting, and scanning skills. Discusses ethics. Emphasizes shooting pictures for newspaper assignments on deadline. Students should have a 35mm (film) camera. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC students; JMC 201 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 101); Minimum 2.50 GPA
JMC	366	Journalism Ethics and Diversity	Explores contemporary news media ethical problems in a seminar setting. Uses journalism ethical perspectives to obtain keys to unlock contemporary dilemmas surrounding the news media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; JMC 110 with C or better; Minimum 2.50 GPA; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-4		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 300, JMC 315, TCM 300 or TCM 315 with C or better
JMC	402	Mass Communication Law	Legal aspects of the rights, privileges, and obligations of the press, radio, and television.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	L	Pre-requisites: JMC student; JMC 201 and ENG 102 with C or better; Minimum 56 hours; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA
JMC	412	Editorial Interpretation	The press as an influence on public opinion. Role of the editorial in analyzing and interpreting current events.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Prerequisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	413	Advanced Editing	Theory and practice of newspaper editing, layout and design, picture and story selection. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student, JMC 313 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	414	Graphic Design for Print and Web	Theory, organization, and practice of layout, typography, and design in traditional and multimedia publishing. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism and Mass Comm student; JMC 201 with a C or better or be currently enrolled; successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); 2.50 cumulative GPA

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JMC	415	Writing for Public Relations	Development of specific writing techniques for the practitioner in public relations agencies and divisions of major organizations. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; JMC 301 with C or better; JMC 270 or JMC 310 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	417	Public Relations Campaigns	Theory, principles, and literature of public relations and how they relate to audiences, campaigns, and ethics.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; JMC 301 with C or better; JMC 270 or JMC 310 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	420	Reporting Public Affairs	Instruction and assignments in reporting the courts, schools, government, city hall, social problems, and other areas involving public issues. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student, JMC 301 with C or better; Minimum 2.5 GPA OR Graduate Mass Communication student
JMC	425	Online Media	Focuses on the Internet from the perspective of the journalist--the best way to tell a story using words, photos, video, and audio. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism & Mass Communication student; JMC 201 with C or better or currently enrolled; 2.5 cumulative GPA OR Graduate Mass Communication students
JMC	433	Media Sales and Promotion	Basics of electronic media marketing practices, including commercial time sales techniques and radio/TV promotion fundamentals.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism & Mass Comm student, JMC 200 (or MCO 200) with a grade of C or greater or be currently enrolled; 2.5 cumulative GPA OR Graduate Mass Communication students
JMC	437	Documentary Production	Emphasizes individual production projects of the student's own conception and design utilizing studio, field, and postproduction techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; Minimum 2.5 GPA; JMC 345 with C or better OR Graduate Mass Communication student
JMC	440	Magazine Writing	Writing and marketing magazine articles for publication. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.5 GPA OR graduate Mass Communication student
JMC	445	Science and Medical Writing	Develops writing, reporting, and an understanding of key concepts in science as they relate to medical science research and practice. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	451	Photojournalism II	Emphasizes shooting and Photoshop skills for newspaper and magazine assignments. Film and digital photography, flash and studio lighting. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism & Mass Communications student; JMC 351 with a C or better or currently enrolled; 2.5 minimum cumulative GPA OR Graduate Mass Communication student
JMC	452	Photojournalism III	Continued practice in shooting (film and digital) and Photoshop skills for newspapers and magazines. Emphasizes single images, picture stories, editorial illustrations, and portfolio development. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 451 with C or better OR Graduate Mass Communication student
JMC	465	Precision Journalism	Advanced reporting methods using Internet research and data analysis tools for beat and investigative stories. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism and Mass Communication student; JMC 301 with a C or better or currently enrolled; 2.50 minimum cumulative GPA OR Graduate Mass Communication students
JMC	470	Depth Reporting	Introduces strategies for writing in-depth newspaper or magazine articles. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	472	Media Management	Management principles and practices, including organization, procedures, policies, personnel problems, and financial aspects of station management.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism & Mass Communication student; MCO 200 (or JMC 200) with a C or better or currently enrolled; 2.5 cumulative GPA OR Graduate Mass Comm students
JMC	475	Television Newscast Production	Writing, reporting, and production of the television newscast. May be repeated once for credit. Fee.	N	LEL	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3-9		Pre-requisites: Journalism and Mass Communication student ; JMC 330 with C or better or currently enrolled; 2.50 cumulative GPA OR Graduate Mass Communication student
JMC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-12		
JMC	492	Honors Directed Study		N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-6		
JMC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-4		Pre-requisites: JMC student; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1.		
JPN	101	First-Year Japanese I	Basic speaking, listening, reading, writing, computer skills, and culture. Hiragana, katakana, 75 kanji. For students without previous Japanese instruction. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
JPN	102	First-Year Japanese II	Continued development of JPN 101 skills. 99 additional kanji. Communication skills goal: ACTFL Guideline Novice-Mid to Novice-High. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites: JPN 101 with a C or greater or in progress. Students may not take JPN 102 if they have received credit for JPN 201,202, 309,310,311,312,313,314,321
JPN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
JPN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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JPN	201	Second-Year Japanese I	Continued development in speaking, listening, reading, writing, culture, and computer skills. 74 additional kanji. Introduction to kanji dictionary. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: JPN 102 with a C or greater or in progress & may not enroll in class if received a D or better in JPN 202,309,310,311,312, 313,314,321
JPN	202	Second-Year Japanese II	Continued development of JPN 201 skills. 116 additional kanji. Communication skills goal: ACTFL Guideline Intermediate-Low to Intermediate-Mid. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: JPN 201 with a C or greater or currently enrolled
JPN	206	Calligraphy	Introduces the practice of calligraphy in Japan, with emphasis on the derivation of Japanese kana syllabaries from Chinese characters.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		Pre-requisites:CHI 205 or JPN 101 with a grade of C or better or currently enrolled
JPN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	309	Intermediate Japanese Conversation	Practice in current usage in expression of ideas. Recommended especially for those who have not had the opportunity to practice Japanese in Japan.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Students may not sign up for JPN 309 if they have received a C or better in JPN 310,311, 312
JPN	310	Intermediate Japanese Conversation	Continuation of JPN 309.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites: JPN 309 with a C+ or better
JPN	311	Japanese Conversation and Composition	Intensive aural/oral practice leading toward conversational fluency. Practice in writing Japanese, emphasizing current usage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2-3	G	
JPN	312	Japanese Composition II	Continued development of writing skills, introducing research and creative writing. Writing proficiency goal: ACTFL Guideline Intermediate-high to Advanced.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
JPN	313	Third-Year Japanese I	Continued development of basic skills with greater emphasis on reading. JPN 313 and 314 must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 202 with a C or greater or in progress
JPN	314	Third-Year Japanese II	Continued development of basic skills with continued emphasis on reading. JPN 313 and 314 must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 313 with a C or greater or currently enrolled
JPN	321	Japanese Literature	Readings in modern literature, changing yearly. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	Pre-requisites: JPN 314 with a C or greater or in progress
JPN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	414	Introduction to Classical Japanese	Readings from various genres of pre-20th-century literature, with analysis of the structure of the classical language.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	435	Advanced Readings	Readings in history, art, religious studies, economics, or other fields.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 314 with a C or greater or in progress
JPN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	485	Problems of Translation	Theories and practice of translation: strategies for handling a variety of Japanese texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
JPN	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
JPN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
JPN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	514	Advanced Premodern Japanese	Close readings of selected premodern texts, with focus on grammatical and stylistic features.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	520	Teaching of Japanese as a Second Language	Theory and practice of teaching Japanese, including presentation, interaction, and evaluation, with consideration given to cultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	535	Advanced Readings	Readings in primary and secondary sources in history, art, religious studies, literature, or other fields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	543	Japanese Language and Linguistics	Analysis and discussion of linguistic theories applied to Japanese phonology, morphology, and syntax, including psychological, sociological, and historical aspects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
JPN	585	Advanced Problems of Translation	Theories and practice of translation; strategies for handling a variety of Japanese texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
JPN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	102	First-Year Japanese II	Continued development of JPN 101 skills. 99 additional kanji. Communication skills goal: ACTFL Guideline Novice-Mid to Novice-High. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.		
JPN	201	Second-Year Japanese I	Continued development in speaking, listening, reading, writing, culture, and computer skills. 74 additional kanji. Introduction to kanji dictionary. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
JPN	202	Second-Year Japanese II	Continued development of JPN 201 skills. 116 additional kanji. Communication skills goal: ACTFL Guideline Intermediate-Low to Intermediate-Mid. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
JPN	313	Third-Year Japanese I	Continued development of basic skills with greater emphasis on reading. JPN 313 and 314 must be taken in sequence.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	G	
JUS	660	Globalization and Economic Justice	Explores the political economy of globalization from a theoretical as well as practical standpoint. Uses sources from a variety of disciplines--sociology, political science, international relations, geography, and economics--all of which contribute unique theoretical and normative tools for analyzing the effect of global forces on economic justice.	N	SEM	N	OPT	Liberal Arts and Sciences	INACTIVE School of Justice and Social Inquiry	3.		
JUS	105	Introduction to Justice Studies	Introductory overview to the study of justice from a social science perspective. Primary topics include justice theories and justice research. Credit is allowed for only JUS 105 or 305. Appropriate for freshmen and sophomores.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Open to undergraduate students who have not received credit for JUS 305; Justice Studies students must have 56 or less earned hours
JUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		
JUS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: Must have less than or equal to 25 hours; Must be a student in Justice Studies.
JUS	200	Topics in Concepts and Issues of Justice	Uses critical thinking skills to analyze and comprehend controversial social issues (e.g., abortion, affirmative action, capital punishment, the flat tax, and immigration).	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
JUS	301	Research in Justice Studies	Focuses on developing and evaluating research designs, data collection, and the relationship between validity and reliability. Stresses methods for conducting research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites:BS student in Justice Stds AND greater than or equal to 25 earned hours OR 2.0 GPA and 25 earned hours and be specific students as determined by Justice Stds Depart. OR 2.0 GPA and more than 56 hours and not be a Justice Stds student.
JUS	302	Basic Statistical Analysis in Justice Studies	Introduces the fundamentals and application of descriptive and inferential statistics, with emphasis in the justice area.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	CS	Pre-requisites: Must have completed Intermediate Algebra or higher; Justice Stds student OR 2.0 GPA and 25 earned hours and specific students as determined by Justice Stds Depart. OR 2.0 GPA and more than 56 hours and not be a Justice Stds student.
JUS	303	Justice Theory	Examines classic and contemporary philosophies and theories of justice, including legal, social, and criminal justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-reqs: Justices Stds student AND have greater than or equal to 25 earned hours OR 2.0 GPA and 25 earned hours and specific students as determined by Justice Stds Dept OR 2.0 GPA and greater than 56 hours and not be a Justice Stds student.

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
JUS	305	Principles of Justice Studies	Introductory overview to the study of justice from a social science perspective. Primary topics include justice theories and justice research. Credit is allowed for only JUS 305 or 105. Appropriate for juniors and seniors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: BS student in Justice Stds; have 25 or more earned hours OR 2.00 GPA; 56 or more earned hours and not be a BS student in Justice Stds. May not have received credit in JUS 105
JUS	306	Police and Society	Focuses on community policing; critical inquiry of administrative decision making; perspectives on police-citizen violence; street practices; urban policing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	308	Courts and Society	History and development of courts. Relationship between dispute resolution mechanisms and cultural/social structure/processes in which they are embedded.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	310	Corrections and Justice	Examines the United States prison condition; types of offenders; issues including drugs, gangs, drunk driving, racial discrimination, and "intermediate" punishments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	311	Crime, Prevention, and Control	Examines prevention and control of crime by a review of contemporary theories, justice agency procedures, and social policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	320	Community and Social Justice	Discusses and analyzes definitions of community; impact of environment on behavior; promises of community organization for local empowerment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	321	Wealth Distribution and Poverty	Examines wealth and income distribution in the United States and analyzes ideological and political forces producing an increasingly unequal society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	323	Justice and the Development of the Welfare State	Provides a comprehensive overview of the development of social welfare and relevant issues pertaining to social justice. Introduces upper-division students to different ideas about the meaning of social welfare in the context of the development of the U.S. welfare state.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	325	Globalization and Socio-Economic Justice	Addresses a trend producing increasing interconnectedness of economies and societies, as well as creating new conflicts and divisions. Provides greater understanding of global forces, as well as the effect of these forces on global economic justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	329	Domestic Violence	Legal, historical, theoretical, and treatment aspects of domestic violence, including child abuse, woman battering, incest, and marital rape.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	335	Organized Crime	Nature of organized crime and its illegal activities, theories of containment, and efforts by justice agencies to counter its dominance in society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	350	Immigration and Justice	Examines immigration policy, history of immigration, refugee issues, labor force participation, gender, family, children, social networks, and transnationalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	360	Law and Social Control	Resolution of social issues through the application of law as an agent of social control. Nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	375	Justice and the Mass Media	Surveys the impact of mass media and popular culture on social justice, including criminal justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	385	Justice and Everyday Life	Justice and injustice in everyday life and how small things can become legal issues. Role of language and interaction in social order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	404	Imperatives of Proof	Issues of evidence, rules of proof, establishing fact and identity in the justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	405	Economic Justice	Addresses economic issues and justice implications, including the interplay among economic conditions, race-ethnicity, class, and gender worldwide.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student

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JUS	408	Comparative Development of the Welfare State	Embodies a multidisciplinary perspective on welfare issues and exposes students to different ideas about justice beyond the United States. Allows them to better understand how and why states organize and deliver justice in different ways. Exposes students to cross-national variation in how history, culture, politics, and economics have shaped the development and content of different types of welfare states. Engages theoretical perspectives from political sociology and political economy concerning the emergence and future fate of these welfare states. Analyzes comparative analysis of three distinctive types of welfare states; Liberal, Conservative, and Social Democratic Welfare States, with particular emphasis on their varying capacity to combine economic efficiency with social justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	410	Punishment: Logic and Approach	Analyzes forms of punishment, how and why they have changed. Areas include philosophy, history, and social structure of punishment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	415	Gender and International Development	Examines the ways in which international development is gendered as well as women's rights as human rights in both national and international arenas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & G	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	420	Women, Work, and Justice	Examines gender inequality in the workplace, including the nature of women's work, theoretical issues, and models for promoting gender justice at work.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	422	Women, Law, and Social Control	Examines social, economic, and legal factors that are relevant to mechanisms of social control of women, including formal legal control and informal control through violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	425	Race, Gender, and Crime	Critically examines major theories, research findings, policies, and controversies concerning race, ethnicity, gender, and crime.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	430	Social Protest, Conflict, and Change	Analyzes historical and contemporary protest movements advocating equality based on race, gender, and sexual orientation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	435	Cinema and Justice	Tracks the conceptualizations of justice that have been and are currently conveyed in film, including but not limited to the relationship between crime and various notions of justice. Other depictions include social issues such as gender, race, or economics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	440	Administration and Justice	Diversity issues; procedural justice and service delivery; relationships between state and economic forces, including processes of regulation; state administrative apparatuses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	444	Environment and Justice	Explores issues of environment and justice. Topics include justice and environmental racism, future generations, nonhuman life, global/non-Western societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	445	Surveillance and Society	Explore how surveillance technologies alter social life; the complex ways that they interact to produce security, fear, control, and/or vulnerability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	450	Alternatives to Incarceration	Investigates various alternatives to incarceration; advantages/disadvantages; major issues including net widening, cost effectiveness, risk assessment, community crime prevention.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	460	Feminism and Justice	Explores feminist thought and critiques traditional political theories. Examines issues of racism, sexuality, and the law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	463	Discretionary Justice	Use/abuse, key issues/manifestations of discretion in legal system and other societal institutions. Theoretical/empirical linkages between discretion and discrimination, based on race, ethnicity, and gender.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	465	Death Penalty in the United States	Focuses on capital punishment in the United States; explores negotiation of law, politics, morality, public policy, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	467	Terrorism, War, and Justice	Examines the relationship among terrorism, war, and justice. Analyzes terrorism within the larger study of deviance and social control, comparative politics, hegemony, and international law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		

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JUS	469	Political Deviance and the Law	Examines the controversies created by political and deviant behavior, including a critical view of law as an agent of social control.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	470	Alternative Dispute Resolution	Critical examination of the tenets of alternative dispute resolution movement; exposure to the programs of ADR, including community and court based.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	474	Legislation of Morality	Addresses historical and contemporary issues related to social justice movements, law, and morality in a pluralistic society. Issues include AIDS, burial rights, homosexuality, poverty, prostitution, and racial discrimination.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	477	Youth and Justice	Critical examination of youth-related justice issues, including economic justice, violence against youth, delinquency, and the juvenile justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L or SB	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	479	Law and Disputing	Critical analysis of the controversies created by disputes, law, and other forms of social control.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L or SB	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
JUS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
JUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
JUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		
JUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
JUS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Justice Studies MS or PHD student
JUS	501	Justice Theory	Theories and philosophies of social, economic, political, and criminal justice. Applies theories to contemporary justice issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	503	Crime and Social Causation	Theories of deviance and crime as they relate to social policies and specific response of the justice complex.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	509	Statistical Problems in Justice Research	Methodological problems of research design and statistical methods specific to justice studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	521	Qualitative Data Analysis and Evaluation	Analyzes qualitative data, e.g., field notes, in-depth interview transcripts, document analysis, coding, and retrieval with a microcomputer; qualitative evaluation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	542	American Indian Justice	Provides a broad overview of American Indian and Alaskan Native issues of justice and injustice in contemporary society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	550	Gender, Race, and Economic Justice	Provides a critical social scientific perspective on economic issues particularly as they relate to gender, race, and class equality. Examines issues of economic inequalities as they are distributed along the lines of gender and race. Components converge to identify the social justice ramifications of economic policy and economic conditions.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	555	Migration/Immigration and Justice	Explores the causes and consequences of immigration to the United States and the incorporation of immigrants into the American economy and society.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	560	Women, Law, and Social Control	Gender issues in the exercise of formal and informal mechanisms of social control, including economic, social, legal factors, both violent and nonviolent.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	570	Juvenile Delinquency	Study of delinquency, including causation theories. Alternative definitions of delinquency, official statistics, and the critique and analysis of the interaction between social institutions and youth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
JUS	575	Race, Gender, and the Law	Explores the law and social sciences literature on race, ethnicity, gender, and the legal order. Critically assesses the major contemporary theoretical and policy debates and controversies in the field from a variety of disciplinary and interdisciplinary lenses, setting these debates in their historical contexts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	579	Political Deviance	Seminar examines the politics of deviance by integrating the study of conflict with aspects of social organization, especially state formation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	588	Justice and the Mass Media	Analyzes the nature and impact of mass media messages about justice concerns for social order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
JUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	610	Law and the Social Sciences	Analyzes the theoretical grounds underlying diverse studies of law and society; creation and administration of law; and jurisprudence and politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	620	Justice Research Methodology	Covers the epistemology of knowledge and method in justice research, history, and philosophy of social science and critical inquiry, as well as perspectives that link these concerns to research strategies. Explores the strengths and weaknesses of introduced methodologies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 500 with C or better
JUS	630	Data Analysis for Justice Research	Bivariate and multivariate techniques of data analysis and hypothesis testing for justice-related research and use of information and statistical programs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 509 with C or better
JUS	640	Theoretical Perspectives on Justice	Analyzes philosophical perspectives of justice; linkages between social science theory and justice constructs; application of justice to social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 501 with C or better
JUS	650	Advanced Qualitative Data Analysis	Advanced qualitative data collection and analysis techniques, including ethnography, in-depth interviews, field notes, coding, transcribing, content analysis, textual analysis.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	669	Political Trials and Indigenous Justice	Focuses upon research on political trials, deviance, and conceptions of indigenous and contemporary justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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JUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
JUS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
JUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
KE	211	Chemical Process Calculations		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Chemical Engineering Program	2.		
KE	461	Process Control		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
KIN	100	Introduction to Health and Wellness	Current concepts in health, exercise, and wellness. Emphasizes personal health, theories, attitudes, beliefs, and behaviors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	
KIN	105	Physical Education Activity	Beginning instruction in a wide variety of sports such as aerobics, aquatics, racquet sports, physical conditioning, and golf. 3 hours per week. Y grade only. Fee.	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	105	Physical Education Activity	Beginning instruction in a wide variety of sports such as aerobics, aquatics, racquet sports, physical conditioning, and golf. 3 hours per week. Y grade only. Fee.	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	110	Research Analysis Laboratory	Introduces basic research areas in the discipline of kinesiology. Topics may include the following: developmental learning, exercise physiology, exercise psychology, exercise testing, metabolic physiology, motor control, motor learning, research journals and societies, research methods, research writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-2		Pre-requisites: Must be a student in one of the following: Pre Sec Ed - Physical Ed, Exercise Sci/Phys Educ or Kinesiology.
KIN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-3		Prerequisite: Must be a freshman with 25 or less total earned hours
KIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	200	Introduction to Kinesiology	Introduces the disciplines and professions associated with kinesiology, including an overview of historical and philosophical foundations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		
KIN	205	Physical Education Activity	Intermediate levels. Continuation of KIN 105. 3 hours per week. fee	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	310	Collegiate Sports	Participation in men's or women's intercollegiate competition. May be repeated for 4 hours 1 per year. Y/E grade.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	334	Functional Anatomy and Kinesiology	Muscles, bones, joints, and nerves and how they produce movement. Emphasizes muscle origins, insertions, actions, and innervations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed BIO 201 or ZOL 201 with a grade of C or greater or be currently enrolled; Must have completed BIO 202 with a grade of C or greater or be currently enrolled
KIN	335	Biomechanics	Basic anatomical and mechanical principles applied to human movement. Emphasizes kinematic and kinetic concepts. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: BIO 201 (ZOL 201) and BIO 202 and PHY 111 with C or better or currently enrolled; One of the following courses: MAT 119, 170, 210, 251, 270, 271, or 272 with a C or better or currently enrolled
KIN	340	Physiology of Exercise	Physiological mechanisms of acute responses and chronic adaptations to exercise. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed BIO 201 or ZOL 201 & BIO 202 or ZOL 202 & one of the following courses: CHM 101, 113, 114, 115, 116, 117, or 118, with a grade of C or greater
KIN	345	Motor and Developmental Learning	Principles of motor skill acquisition across the life span, focusing on the learner and the learning environment. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either PGS 100 or PGS 101 with a grade of C or greater or be currently enrolled; Must have completed either BIO 201 or ZOL 201 with a grade of C or greater or be currently enrolled
KIN	348	Psychological Skills for Optimal Performance	Applies psychological techniques and their use to improve effectiveness and performance in sport and related areas.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	
KIN	352	Psychosocial Aspects of Physical Activity	Interrelationships between physical activity and psychosocial variables, including socialization, cultural values, aggression, and motivation. Includes the psychological benefits of physical activity and exercise adherence.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB & C	Pre-requisites: Must have completed either PGS 100 or PGS 101 with a grade of C or greater or be currently enrolled
KIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	412	Biomechanics of the Skeletal System	Biomechanics of tissues, structures, and major joints of the musculoskeletal system. Discussion of injury mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed EPE 335, KIN 335 or PED 335 with a grade of C or greater or be currently enrolled in KIN 335
KIN	413	Qualitative Analysis in Sport Biomechanics	Develops systematic approach for detecting and correcting errors in human performance using anatomical and mechanical principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 335 or KIN 335 with a grade of C or greater or be currently enrolled in KIN 335

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KIN	414	Electromyographic Kinesiology	Muscular contributions to human movement, muscle mechanics, electrophysiological basis, and practical application of electromyography. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 335, KIN 335 or PED 335 with a grade of C or greater or be currently enrolled in KIN 335; Must have completed EPE 240, KIN 340 or PED 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	421	Human Motor Control	Focuses on understanding how the human central nervous system controls, regulates, and learns movements.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	422	Motor Control in Special Populations	Discusses principles of motor control theories and related practical applications for certain special developmental populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	423	Motor Control and Aging	Functional and behavioral changes to the motor control system as humans age, how specifically it impacts motor control and learning.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	440	Exercise Biochemistry	Study of bioenergetics and metabolism of cellular (skeletal muscle, heart, and liver) organelles and proteins during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	441	Physiology of Women in Sport	Physiological aspects of women engaging in physical activity. Emphasizes factors affecting performance and health throughout life.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	442	Fuel Metabolism	Discusses current research concerning the metabolism of carbohydrate, fat, and protein during exercise. Credit is allowed for only KIN 442 or 536.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	443	Exercise Endocrinology	Discusses current research and theory concerning hormonal changes during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	444	Metabolic Adaptations to Exercise Training	Examines physiologic adaptations to exercise training as they relate to metabolism and tissue functions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	445	Exercise Physiology for Children and Adolescents	Understanding the influence of physical growth and maturation on the development of the functional capacities of the exercising child. Credit is allowed for only KIN 445 or 535.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	448	Applied Sport Psychology	Psychological theories and techniques applied to a sport to enhance the performance and personal growth of athletes and coaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 352, PED 352 or KIN 352 with a grade of C or greater or be currently enrolled in KIN 352
KIN	450	Biopsychosocial Perspectives on Physical Activity and Health	Uses a biopsychosocial perspective to examine the interrelationships on physical activity and health (physical and mental).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 352 or KIN 352 with a grade of C or greater or be currently enrolled in KIN 352
KIN	452	Exercise Psychology	Contemporary research and theory as related to human behavior and health in an exercise setting.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	Pre-requisites: Must have completed EPE 352, PED 352 or KIN 352 with a grade of C or greater or be currently enrolled in KIN 352
KIN	460	Theory of Strength Training	Research and theories on developing muscular strength; programs for developing muscular strength.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-6		Pre-requisites: Must be an Honors student
KIN	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-6	L	Pre-requisites: Must be an Honors student
KIN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		Pre-requisites: Academic Level may not equal Freshman
KIN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-7		Pre-requisites: Must be BS Kinesiology student; Seniors only
KIN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-3		
KIN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	501	Research Statistics	Statistical procedures; sampling techniques; exercise testing, exercise prescription, hypothesis testing, and experimental designs as they relate to research publications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	505	Applied Exercise Physiology Techniques	Investigative techniques used in the applied exercise physiology lab. Emphasizes pulmonary function, body composition, and cardiorespiratory assessment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	510	Introduction to Biomechanics Research Methods	Applies mechanics to human movement analysis. Includes consideration of 2-D imaging techniques, force measurement, electromyography, and data processing methods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	512	Biomechanics of the Skeletal System	Biomechanics of tissues, structures, and major joints of the musculoskeletal system. Discusses injury mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	520	Sport Psychology	Current research in sport psychology with an emphasis on performance enhancement. Includes questionnaire, psychophysiological, and behavioral research methods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	521	Motor Development, Control, and Learning	Theory and research on motor skill acquisition, including learning/control and development (i.e., growth, children and exercise, and development learning).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	4.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)

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KIN	522	Exercise Psychology	Contemporary research and theory as related to human behavior and health in an exercise setting.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	530	Exercise Physiology	Immediate and long-term adaptations to exercise with special reference to training and the role of exercise in cardiovascular health.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	531	Physiology of Women in Sport	Physiological aspects of women engaging in physical activity. Emphasizes factors affecting performance and health throughout life.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	532	Exercise Biochemistry	Understanding the basic biochemical principles and enzyme pathways involved in energy transduction during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	533	Exercise Endocrinology	Discusses current research and theory concerning hormonal changes during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	535	Exercise Physiology for Children and Adolescents	Understanding the influence of physical growth and maturation on the development of the functional capacities of the exercising child. Credit is allowed for only KIN 535 or 445.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	536	Fuel Metabolism	Discusses current research concerning the metabolism of carbohydrate, fat, and protein during exercise. Credit is allowed for only KIN 536 or 442.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Kinesiology	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	598	Special Topics	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	610	Advanced Topics in Biomechanics	3-D imaging techniques, data analysis theory, and integration of biomechanics research tools; includes original research project.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	621	Motor Learning/Control	Discussion of contemporary research issues in motor learning and control. Includes behavioral and neurophysiological issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Kinesiology	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Kinesiology	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
KOR	101	First-Year Korean I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills, including Han'gul. Lecture, recitation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
KOR	102	First-Year Korean II	Continuation of KOR 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:KOR 101 with a grade of D or better, or currently enrolled
KOR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	201	Second-Year Korean I	Continual development of communication skills. Increased emphasis on reading and writing, vocabulary building, and review of fundamentals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: KOR 102
KOR	202	Second-Year Korean II	Continuation of KOR 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: KOR 201
KOR	250	Korean Culture and Society	Surveys Korean culture and society, covering history, religious traditions, gender, and popular culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
KOR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	313	Third-Year Korean I	Continued development of ability to communicate orally and in writing. Exposure to a variety of Korean written styles.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: KOR 202
KOR	314	Third-Year Korean II	Continuation of KOR 313.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: KOR 313
KOR	347	Korean Film and Literature	Introduces aspects of Korean history, culture, and society through Korean film and literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	
KOR	350	Women of Korea	Examines the changing role and status of women in modern Korea in relation to political and cultural changes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	H	
KOR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
KOR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
KOR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
KOR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
KOR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAA	345	Professional Practice Seminar	Landscape architecture practice including contracts, project and office management, liability, licensing, and professional development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
LAA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Landscape Architecture BSLA plan; Co-requisite: LDE 461
LAP	485	International Field Studies in Landscape Architecture	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	Y	FLD	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
LAP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		

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LAP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
LAP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LAP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAT	101	Elementary Latin	Basic Latin grammar with an emphasis on developing reading skills. For beginning students only.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
LAT	102	Elementary Latin	Continuation of LAT 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: LAT 101
LAT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
LAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	201	Intermediate Latin I	Final semester of grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	HU	Pre-requisites: LAT 102
LAT	202	Intermediate Latin II	Beginning reading of Latin authors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	HU	Pre-requisites: LAT 201
LAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	421	Roman Literature	Readings in the Latin masterpieces. Authors read change each year in accordance with needs of the class. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: LAT 202
LAT	422	Roman Literature	See LAT 421.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: LAT 202
LAT	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
LAT	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
LAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
LAT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
LAT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
LAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAW	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	College of Law Dean's Office	1-4		

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LAW	614	International Contracts	Explores the laws applicable to international contractual relations, focusing heavily on the United Nations Convention on Contracts for the International Sale of Goods. One of several offerings in the field of International Business Transactions, touches on choice of law rules and a comparison of selected UCC with CISG provisions; a comparison of the contract law of selected foreign nations with the UCC; and the law of contracts in the United States. The casebook is heavily oriented toward a problem method of study.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	641	Securities Regulation II	Securities laws affecting the purchase and sale of publicly-traded securities.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	659	Intellectual Property Portfolio Management	Covers business/law dynamics in the technology sector.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	1-4		
LAW	660	Advanced Estate Planning	Covers advanced estate planning and estate administration issues.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	661	Constitutional Literacy	Academic complement to the Marshall-Brennan Constitutional Literacy Program where law students teach constitutional law to high school students.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	1-3		
LAW	662	Alternative Dispute Resolution and Employment Law	The use of alternative dispute resolution has been most extensive in the area of employment law. Mediation and arbitration are widely used not only in the collective bargaining setting, but also in virtually every aspect of the employment relationship. Offers a comprehensive review of the subject with special emphasis on the extensive body of law that has developed in regulating employer-imposed arbitration. Discussion of mediation includes use of simulations to enable the students to understand how mediation can effectively resolve employment disputes. Opportunities to observe real mediations of employment disputes. Experienced attorneys discuss the "real world" use of employment ADR from a plaintiff's and a defendant's perspective.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	663	Prisoner Rights	Provides overview and basic understanding of the rights of prisoners within the United States penal system. Emphasizes prisoners' civil rights under the U.S. Constitution and 42 U.S.C. Section 1983, including claims such as access to courts, conditions of confinement, religious freedoms, excessive use of force, ineffective medical assistance. Analyzes prison culture and models for reform, state post-conviction rights of appeal, the death penalty, parole, and commutation. Includes optional tour of a maximum security prison (which is much different from the county jail tour) and guest speakers (correctional officers and former inmates).	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	664	Intellectual Property	Surveys the laws conventionally grouped as intellectual property, with a focus on patents, copyrights, and trademarks. Explores the policy rationales for each body of law. Particularly relevant for two types of students: (a) those who are unsure they want to specialize in IP and want a general introduction, and (b) those who do not have room in the schedules to take all of the upper-level offerings here at ASU. Not appropriate for students who have already taken the upper-level courses in copyright, trademark, and patents; students who have taken these offerings may be withdrawn.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-4		
LAW	665	Fundamentals of Legal Drafting	Fundamental writing skills applicable to drafting normative legal documents.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	1-3		
LAW	718	Economic Development in Indian Country	Focuses on the unique legal, economic, and political issues confronting tribal governments in developing diversified reservation economies.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	719	International Indigenous Rights	Examines the developments in recognizing indigenous rights in people's systems of international law.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	725	Critical Race Theory	Focuses on the idea of "race" as a social/political construct and examines the impact of American law on the construction of race. Provide historical and legal background necessary to understand the significance of race within American law and policy. Evaluate a number of legal frameworks that address issues of race and ethnicity in various contexts (e.g. segregation laws, civil rights law, federal Indian law, international human rights law). Assesses various jurisprudential accounts evaluating the ethical and moral underpinnings of the law. Critical race theory is known as a jurisprudential framework that is often critical of standard liberal approaches. Evaluates the critiques of liberalism and the scholarship of both liberal and critical theorists.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	736	Advanced Legal Research Seminar	Focuses on a rigorous review of basic print and electronic resources and strategies for conducting legal research, federal/state.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	2-3		

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LAW	737	Cults and Alternative Religions	Provides opportunity to study laws and policies governing cults. While the definition of a "cult" will be a topic of initial study in the seminar, it may be conceived of loosely as a group with a charismatic leader whose members are persuaded to relinquish their self-identities and material possessions in furtherance of the group's goals. In addition to analyzing the definition of a cult, the first part of the seminar discusses the various types of cults, studying particular cults, and learning about cultic activities. The remainder covers domestic and foreign legal and policy issues generated by cults, including the legal rights of cultic organizations, anti-cult organizations, cult members, and cult members' families. Covers conventional religions that are conceptually similar to cults, to the degree that religious movements fall outside the mainstream.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-4		
LAW	739	Economics and the Law Seminar	Explores premises of the law and economics movements and their applications to property, contract, and tort law.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	776	Indian Legal Clinic	Provides law students the opportunity to participate in cases dealing with native peoples and Indian issues.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	1-6		
LAW	777	Technology Ventures Clinic	Allows students to gain real-world experience in legal areas such as patentability of inventions, patent drafting, and technology valuation.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	1-6		
LAW	778	Immigration Law and Policy Clinic	Live-client clinic where students represent Latinos, particularly children, in immigration proceedings and the immigration courts.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	1-6		
LAW	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	LAW	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	515	Contracts	Explores common law legal method and the structure of Article 2 of the U.C.C. in the context of issues of contract formation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-5		
LAW	516	Criminal Law	Substantive law of crimes.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	517	Torts	Legal protections of personality, property, and relational interests against physical, economic, and emotional harms.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	518	Civil Procedure	Explores the structure of a lawsuit and techniques of alternative dispute resolution. Specific topics include commencement of suit, joinder of parties, discovery, pretrial motions, subject matter and personal jurisdiction, res judicata, collateral estoppel, and choice of law under the Erie doctrine.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-5		
LAW	519	Legal Method and Writing	Examines methods used to analyze legal problems. Reviews precedent statutory construction and basic res judicata problems. Use of basic legal writing formats.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	520	Contracts	Continuation of LAW 515 focusing on contract interpretation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	522	Constitutional Law I	Role of courts in the federal system, distribution of powers between state and federal governments, and the role of procedure in litigation of constitutional questions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	523	Property	Indicia of ownership, found property, estates in land, landlord tenant, nonpossessory interests in property, nuisance, land use planning, and transfers of interests in property.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	524	Legal Research and Writing	Continuation of LAW 519.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	526	Property	Nonpossessory interests in property (easements, covenants, servitudes); nuisance; land use planning; and transfers of interests in property.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	527	Civil Procedure	Continuation of LAW 518; addressed subjects in LAW 518 in greater depth as well as personal jurisdiction, res judicata, collateral estoppel, and choice of law under the Erie doctrine.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	529	Law and the Regulatory State	Introduces the importance, origins, and methods of interpreting statutes, regulations, and court rules.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	597	Visiting Student Program		N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	0.		

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LAW	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LAW	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	601	Antitrust Law	Legislation and its implementation to prevent monopoly and business practices in restraint of trade, including restrictive agreements involving price-fixing, trade association activities, and resale price maintenance.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisites: College of Law student
LAW	603	Conflict of Laws	Problems arising when the operative facts of a case are connected with more than one state or nation. Choice of law, bases of jurisdiction, effect of foreign judgments, and underlying federal and constitutional issues.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	604	Criminal Procedure	Nature of the criminal procedural system with special focus on constitutional protections for the accused.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisites: College of Law student
LAW	605	Evidence	Principles and practice governing the competency of witnesses and presentation of evidence, including the rules of exclusion and roles of lawyer, judge, and jury under the adversary system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisites: College of Law student
LAW	606	Federal Income Taxation	Federal income tax in relation to concepts of income, property arrangement, business activity, and current tax problems, with focus on the process of tax legislation and administration.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisites: College of Law student
LAW	608	Business Associations I	Partnerships, limited partnerships, and small business corporations. Includes a brief introduction to accounting. Detailed analysis of the problems of forming a close corporation, state law duties of care and loyalty, management, dividends and redemptions, issuance of stock, internal dispute resolution, dissolution, and the general law of derivative actions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisites: College of Law student
LAW	609	Business Associations II	Interrelationship of federal and state law and a brief introduction to corporate finance (1933 Act). Broad overview of large company regulations including reporting rules, proxy regulation, insider trading, sale of control, tender offers and takeovers, and going private.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisites: College of Law student
LAW	610	Advanced Criminal Procedure	Topics in criminal procedure, with emphasis on legal constraints on grand jury investigations, police practices, pretrial release, preliminary hearings, prosecutorial discretion, and plea bargaining.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	611	Estate and Gift Tax	Tax laws relating to transfer of wealth both at death and during lifetime, including federal estate tax, gift tax, and income taxation of estates and trusts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: Must be College of Law student
LAW	612	Family Law	Legal and nonlegal problems that an individual may encounter because of a situation as a family member.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	613	Federal Courts	Federal judicial system; relationship of federal and state law; jurisdiction of federal courts and their relation to state courts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	615	Public International Law	Role of law in international disputes. Considers drafting and interpretation of treaties and multilateral conventions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	616	Jurisprudence	Introduces legal philosophy, with readings on the nature of law and legal reasoning, the relationship between law and morality and equality and social justice.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	617	Genetics and the Law	Provides background on genetics and recent genetic advances; addresses the legal consequences and issues associated with such advances.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	618	Decedent's Estates	Substantive concepts involved in transmitting wealth, including interstate succession, wills and will substitutes, the modern trust as a family protective device, creation of future interests in a planned estate, social restrictions of a nontax nature, and methods of devoting property to charitable purposes.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	619	Payments	Law of credit obligations and payment devices. Focuses on Articles 3, 4, and 4A of the Uniform Commercial Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	620	Civil Rights Legislation	Coverage of the rights and remedies provided by federal civil rights legislation, principally, the key provisions of the Reconstruction Era Civil Rights Acts, portions of the employment discrimination legislation, and voting rights legislation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	621	Sales	Advanced issues involving the formation and interpretation of sales and lease contracts. Focuses primarily on Articles 2 and 2A of the Uniform Commercial Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student

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LAW	622	Secured Transactions	Secured transactions under Article 9 of the Uniform Commercial Code and other relevant sections. Overview of the creation, perfection, and priority effects of security interests. Financing of business enterprise and consumer credit.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	623	Commercial Torts	Involves an analysis of actionable wrongs against a business entity or against proprietary rights held by that entity, covering the entire spectrum of private remedies for competitive wrongs.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	624	Community Property	Property rights of husband and wife; the Arizona community property system; homestead.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-2		Pre-requisite: College of Law student
LAW	625	Constitutional Law II	Fundamental protection for person, property, political, and social rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	627	Corporate Taxation	Problems in taxability of the corporation, corporate distributions, and corporate reorganizations.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	628	Creditor-Debtor Relations	Creditors' remedies in satisfaction of claims and debtors' protection and relief under bankruptcy, other laws.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	629	Employment Law	Employment law topics including testing, privacy, OSHA, FLSA, benefits, worker's compensation, rights to compensation, workplace emotional injuries, termination, and sexual harassment.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	630	Employment Discrimination	Focuses primarily on Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, and the Americans with Disabilities Act.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	631	Environmental Law	Litigation, administrative law, and legislation relating to problems of environmental quality. Topics covered may include air and water pollution, toxic substances, pesticides, and radiation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	632	Indian Law I	Inquiry into legal problems special to American Indians and tribes.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	633	Law, Litigation, and Science	Fills a gap in the education of most lawyers, namely, how to effectively think about and use empirical evidence.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	635	Juvenile Law	Special problems in the juvenile system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	636	Land Use Regulation	Legal problems in the regulation and control of land development by state and local governments. Administration of zoning, subdivision, and other planning controls; issues of fairness and procedure in the utilization of such controls.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	637	Lawyering Theory and Practice	Issues of competency and professionalism in the practice of law.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	4.		Pre-requisite: College of Law student
LAW	638	Professional Responsibility	Emphasizes the Model Rules and Model Code that govern the professional responsibility of lawyers and their interpretation and application.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	639	Natural Resource Law	Examines the constitutional basis for federal land management and the different kinds of public lands management schemes (e.g., parks, forests, wildlife refuges), emphasizing acquisition of right to, and regulation of, the different uses of public lands and resources (e.g., mining, grazing, timber, wildlife habitat, recreation).	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	640	Securities Regulation	Selected problems arising under the major statutes concerned with regulating the securities market.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	642	White Collar Crime	Examines the ways in which white collar crime is prosecuted, principally in the federal system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	643	Water Law	Acquisition of water rights; water use controls; interstate conflicts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	645	Patent Law	In-depth examination of substantive patent law as it applies to the commercialization and enforcement of patent rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	646	Copyright Law	Legal rights in original forms of human expression.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	647	Mass Tort Litigation	Examines unique procedural and substantive issues that arise in mass tort litigation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	648	International Intellectual Property	Considers patents, copyrights, and trademarks under international law and the major international treaties.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	649	Scientific Evidence	Examines the use of scientists and scientific tests or studies in criminal and civil litigation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	650	Health Law	Introduces health law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	651	Public Health Law	Addresses the relationship between the state and the population's health.	N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	652	Bioethics and the Law	Covers a range of issues relating primarily to human reproduction and life and death decisions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student

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LAW	653	Bankruptcy	Covers basic bankruptcy law and practices.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	654	Business Organizations	Covers the primary forms of business organizations: partnerships, limited partnerships, limited liability companies, and corporations.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	655	Chapter 11	Covers the law and practice of reorganizing business entities under Chapter 11 of the United States Bankruptcy Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	656	Valuing Real Estate and Closely-Held Businesses	Focuses on the valuation of interests in real property and closely-held businesses.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	657	Private Property Rights	Explores the conflict between property rights and the right of the government to acquire private property for public use.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	658	Arizona Constitutional Law	Examines the basic provisions of the Arizona Constitution and the judicial decisions interpreting those provisions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre Requisites: Law Students Only
LAW	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	697	Visiting Student Program		N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	0.		
LAW	701	Arbitration	Examines the Federal Arbitration Act and the Uniform Arbitration Act as it has been adopted in Arizona.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	702	Alternative Dispute Resolution	Broad exposure to methods of settling disputes in our society such as mediation, arbitration/conciliation, and negotiation, including examination of the current litigation model.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	703	Law, Science, and Technology	Legal mechanisms used in dealing with various issues raised by contemporary science and technology. Explores current legal responses to science and technology.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	704	Indian Law II	Surveys the federal legal doctrines surrounding Indian ownership and exploration of resources.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	705	Media Law	Examines First Amendment principles and statutory and regulatory requirements with respect to the conventional print and broadcast media, as well as recent technologies such as cable.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	706	Immigration Law	Explores political, economic, social, and legal issues concerning immigration. Specific topics covered include citizenship and naturalization, denaturalization, deportation, and refugee rights and asylum.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	707	Elder Law	Looks at legal and policy questions related to aging individuals and an older society.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	708	Gender, Sexuality, and the Law	Examines assumptions made in the law about gender and sexuality and the impact of those assumptions on the application of the law.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	709	International Human Rights	International rules and procedures governing the protection of human rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	710	Real Estate Tax Planning	Discusses topics, including but not limited to real estate investments as tax shelters, alternative acquisition finance devices, refinancing techniques, and nontaxable exchanges.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	712	Religion and the Constitution	In-depth study of the establishment and free exercise clauses of the First Amendment to the U.S. Constitution.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	713	Tribal Law and Government	Analyzes particular problems in tribal law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	715	Sports Law	Unique legal problems relating to professional sports, including their relationship to antitrust laws, the nature of player contracts, and associated tax problems.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	720	Indian Gaming Law	Surveys the law surrounding the Indian gaming industry.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	721	Education and the Law	Current legal problems affecting institutions of higher education, faculty, students, and governing boards.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	722	Mexican Law	Comparative overview of Mexican law. Poses questions regarding the proper role and function of a legal system.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	723	Cultural Resources Law	Focuses on the protection of Native American cultural resources and religions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	724	Privacy	Traces the development of privacy law with special attention to contemporary challenges.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	733	Negotiation	Explores alternative models of negotiated dispute resolution, as well as the roles of lawyer and client in the negotiation process. Extensive use of simulation exercises.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	734	Products Liability	Traces the development of products liability law; analyzes the major issues currently confronting the courts in this area.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student

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LAW	735	Writing TA	Legal writing teaching assistants assist a writing professor with various tasks throughout the semester.	N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	738	Trial Advocacy	Confronts issues of trial advocacy through simulation of a variety of aspects of trial practice in a mock court setting.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	745	The Supreme Court	Intensive examination of selected current decisions of the U.S. Supreme Court.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	768	International Business Transactions	Introduction to U.S., foreign, and international law regulating cross-border business transactions and to the structure of cross-border business deals.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	770	Law Journal	Academic credit for successful completion of editorial work by a member of the staff of Arizona State Law Journal. May be repeated for credit for a maximum of 5 semester hours.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		Pre-requisite: College of Law student
LAW	771	Jurimetrics Journal	Academic credit for successful completion of editorial work by a member of the staff of the Jurimetrics Journal of Law, Science, and Technology.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	1-3		Pre-requisite: College of Law student
LAW	772	Defender Clinic	Placement in the Public Defender Clinic and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	773	Civil Justice Clinic	Placement in the Civil Practice Clinic and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	774	Criminal Practice Clinic	Placement with various prosecutor offices in the Phoenix area and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	775	Mediation Clinic	Study of the mediation process and experience as mediators in cases pending before the justice courts and administrative agencies.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	781	Independent Study	With the approval of a faculty member, a student may research a legal subject of special interest and prepare a paper suitable for publication.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	782	Independent Study	See LAW 781.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	783	Field Work	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	785	Externship	Supervised, practical lawyering in an external placement proposed by the student or established by a sponsoring agency and approved by the Sandra Day O'Connor College of Law. In addition, an associated academic component is established by the student with a member of the faculty.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	797	Visiting Student Program		N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	0.		
LDE	361	Landscape Architecture I	Site planning: analysis of natural and cultural features; site systems and implications for plan making and design. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture students only; Co-requisites: LTC 343
LDE	362	Landscape Architecture II	Site design: site-specific design of configured space by the creative development of form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 361 (or PLA 361) with C or better
LDE	363	Landscape Planting Design	Functional and aesthetic use of plants in arid-region landscape design. Explores design philosophies through planting design problems.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: LAA 345; LDE 362; LTC 344
LDE	461	Landscape Architecture III	Landscape ecological planning: collection and application of ecological data relevant to planning and design at landscape scale. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: LDE 362 with C or better or currently enrolled; Co-requisites: LAP 484; LTC 494 ST: Plant Materials
LDE	462	Landscape Architecture IV	Advanced landscape architecture: integrative capstone studio with multifaceted design problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: LDE 461 with C or better or currently enrolled; Co-requisite: LTC 446
LDE	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
LDE	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
LDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		

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LDE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LES	305	Legal, Ethical, and Regulatory Issues in Business	Legal theories, ethical issues, and regulatory climate affecting business policies and decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W. P. Carey BA or BS student, OR non-business student with minimum 2.5 ASU cum GPA, and minimum 2.5 ASU business GPA, and minimum 56 earned hours, OR be a non-degree or Graduate student.
LES	306	Business Law	Legal and ethical aspects of contracts, sales, commercial paper, secured transactions, documents of title, letters of credit, and bank deposits and collections.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-Requisites: Student in Accountancy; Global Management student in Conditional or Professional Business status
LES	380	Consumer Perspective of Business Law	Role of law as it affects society. Uses case studies to present principles that govern business and consumers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Must have a minimum GPA of 2.00; must have a minimum total earned hours of 56 or be a graduate or non-degree seeking student
LES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: Minimum 2.00 GPA; Minimum 56 hours OR Non-degree seeking student
LES	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
LES	532	Negotiation Agreements	Develops negotiation competencies to build partnerships and create lasting agreements with internal/external customers, suppliers, work teams, and external constituencies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: MBA student
LES	579	Legal and Ethical Issues for Business	Managerial decision making within the bounds of ethics, social responsibility, and legal and regulatory constraints. Strong international focus.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA student
LES	581	Essentials of Law for Managers	Studies legal components of business decisions, multiple aspects of law affecting business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1.5-3		
LES	582	Ethical Issues for Managers	Studies ethical decisions; the role of business in society.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1.5-3		
LES	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	305	Legal, Ethical, and Regulatory Issues in Business	Legal theories, ethical issues, and regulatory climate affecting business policies and decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BS student, West Global Management student with Professional or Conditional status or a Food and Nutrition Management student
LES	411	Real Estate Law	Legal and ethical aspects of land ownerships, interests, transfer, finance development, and regulations of the real estate industry.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Business professional status; Co-requisites: BUS 451 and REA 441
LIA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
LIA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
LIA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6	L	Pre-requisites: Must be an Honors student
LIA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-14		
LIA	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		

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LIA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
LIA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	301	International Organizational Behavior	Educates students to lead others in the intra- and interorganizational relationships in multinational firms operating in complex global environments. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management and Leadership student in the Leadership in International Management plan with either a Professional or Conditions status.
LIM	303	Negotiation and Conflict Resolution Strategies Across Cultures	Explores the impact of cultural differences on international negotiations and subsequent application of this knowledge to conflict resolution processes. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	401	Advanced Topics in International Leadership	Provides an overview of the most current leadership theories and practices to develop students as leaders in crosscultural contexts. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
LIM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-7		
LIM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		
LIN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	510	Linguistics	Overview of linguistics, its subfields, and some of its applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	511	Phonetics and Phonology	Current trends in phonological theory and its basis in acoustic and articulatory phonetics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	513	Semantics	Current approaches to linguistic meaning with particular attention to English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	514	Syntax	Analyzes syntactic structures using a generative theoretical model with a focus on English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	515	American English	Development of the English language in America, including regional and social varieties, and its relationship to other immigrant and native languages.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	516	Pragmatics and Discourse Analysis	Studies language use in context and language structures in spoken and written texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	517	History of the English Language	Surveys the development of the English language, with an emphasis on major linguistic transformations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	520	Second-Language Acquisition Theories	Theories of second-language acquisition, including the linguistic, cognitive, and sociocultural aspects.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	521	Methods of Teaching English as a Second Language	Methods of teaching English as a second language, language teaching trends, practical applications, and the teaching of different skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	522	Grammar for TESL	Surveys major grammatical structures in English and how they can be taught to ESL speakers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	523	Language Testing and Assessment	Introduces the theory and practice of language test construction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	524	Curriculum Design and Materials Development	Practical guide to curriculum and materials development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
LIN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
LIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of English	1-12		
LIN	610	Advanced Studies in Linguistics	Different topics such as morphology, semantics, typology, history of linguistics.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	614	Advanced Studies in Syntax	Focuses on morphosyntactic feature checking, movement, phrase structure, and their crosslinguistic differences. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	615	Advanced Studies in Sociolinguistics	Language in its social setting, e.g., social variation among native speakers, sociolinguistics aspects of second-language acquisition, and language policy.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	616	Advanced Studies in Discourse Analysis	Advanced analysis of spoken and written discourse emphasizing different methodological and theoretical issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	617	Advanced Studies in Historical Linguistics	Overview of theories on language change, the history of languages, and of methods in historical linguistics.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	620	Advanced Studies in Second-Language Acquisition	Selected topics in second-language acquisition, such as phonetics and phonology, morphology, syntax, and discourse. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	655	Disciplinary Discourses	Investigation of professional and disciplinary issues related to English studies.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	656	Studies in Cross-Cultural Discourse	Theoretical and methodological issues in the comparative study of discourses between cultures and communities of practice.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-15		
LIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
LIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of English	1-15		
LIS	510	Computers and Technology in the School Library	Library uses of technology and computers. Fundamental concepts and issues in library media centers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

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LIS	533	Current Library Problems	Critical analysis of current practices and problems in school librarianship.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	540	Classification and Cataloging	Descriptive cataloging and Dewey Decimal Classification of print and nonprint library materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	561	Selection of Library Materials	Principles and procedures used in the selection of materials for the school library.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	565	Literature for Hispanic Youth/Literatura para Jóvenes Hispanoparlantes	Selects, analyzes, and utilizes literature for Hispanic and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	571	Basic Reference Resources	Provides reference service in the school library. Content and use of basic resources.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	581	School Library Administration	Administration of K-12 libraries and media centers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LNP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LNP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		

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LNP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LNP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	310	History of Landscape Architecture	Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	
LPH	311	Contemporary Landscape Architecture	Explores concerns, projects, and movements in landscape architecture of late 20th-century understanding; social, ecological, regional, and historical influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
LPH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	411	Landscape Architecture Theory and Criticism	Critically analyzes landscape architecture theories and projects to evaluate validity of design and contribution to society.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	L	
LPH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LPH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LSC	241	Human Genetics	Introduces basic concepts of human heredity and cytogenetics, including Mendelian, molecular, and population genetics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		

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LSC	366	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems; and the relationship of these processes to energy production and utilization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed CHM237, CHM238, CHM233, and CHM234 with a grade of C or greater or be currently enrolled.
LSC	367	Elementary Biochemistry Laboratory	Quantitative analysis of constituents of biological systems, enzyme assays, protein purification, and metabolic studies. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: Must be co-enrolled in LSC366
LSC	370	Vertebrate Zoology	Characteristics, classification, evolution, and natural history of the major groups of vertebrate animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO 187 and BIO 188 with a grade of C or greater or be currently enrolled.
LSC	380	Medical Parasitology	Parasitic diseases of humans, including life cycle events and clinical manifestations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed LSC353/BIO353 or LSC385/BIO385 with a grade of C or greater or be currently enrolled.
LSC	385	Invertebrate Zoology	Characteristics, life cycles, adaptations, and evolution of invertebrate animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO182/182 and BIO188/181 with a grade of C or greater or be currently enrolled.
LSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	408	Population Biology	Theoretical and applied aspects of distribution and abundance, population regulation, genetic flow, and interactions among populations, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	415	Biometry	Statistical methods applied to biological problems, design of experiments, estimation, significance, analysis of variance, regression, correlation, chi square, and bioassay; the use of computers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	CS	Pre-requisites: must have completed MAT 210 or MAT 270 or MAT 271 AND LSC320 and LSC322 with a grade of C or greater or be currently enrolled.
LSC	422	Introductory Immunology	Fundamental concepts in research and medicine. Cellular immunity, antibody and antigen, immunogenetics, immunoregulation, hypersensitivity, clinical immunology, and nervous-immune system interactions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed CHM233/331 and LSC353 or BIO353 with a grade of C or greater or be currently enrolled.
LSC	430	Environmental and Human Toxicology	Lecture/fieldwork course investigating toxic substances in the environment and their effect on the health of organisms, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO187/182, BIO188/181, and CHM116/115 with a grade of C or greater or be currently enrolled.
LSC	432	Basic Pharmacology	Aspects of pharmacology using an integrated approach to familiarize students with natural and synthetic therapeutic agents used in medicine.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed either BIO353, LSC353, or LSC359 with a grade of C or greater or be currently enrolled.
LSC	434	Marine Ecology	Examines ecological processes in oceans, seas, and estuaries that emphasizes species- and community-level phenomena.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO187/182, BIO188/181, and LSC320 with a grade of C or greater or be currently enrolled.
LSC	443	Applied Molecular Genetics and Genomics	Nature and function of the gene; emphasizes the molecular genetic disease states; molecular biology; regulation of gene expression; genomics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: LSC 347 with C or better; CHM 233 or 331 with C or better; CHM 237 or 335 with C or better
LSC	444	Fundamentals of Microbiology	Overview of microorganisms; their anatomy, physiology, genetics, metabolic diversity, and ecological significance. Not open to students with credit in MIC 205.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed LSC353 with a grade of C or greater or be currently enrolled.
LSC	445	Fundamentals of Microbiology Laboratory	Principles and lab techniques used in culturing, identifying, and analyzing microorganisms. Not open to students with credit in MIC 206. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisite: must have completed LSC444 with a grade of C or greater or be currently enrolled or c-enrolled in LSC444.
LSC	447	Molecular Genetics Laboratory	Investigative lab involving DNA isolation, PCR, gel electrophoresis, enzyme digestion and ligation, transformation, and hybridization analysis. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	450	Premedical Externship	Provides hands-on experience in a hospital setting for premedical students.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: LSC 350 with C or better
LSC	453	Animal Histology	Microscopic study of animal tissues. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO188/181, BIO187/182, and LSC353/BIO353 with a grade of C or greater or be currently enrolled.
LSC	471	Ornithology	The biology of birds. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed LSC370 with a grade of C or greater or be currently enrolled.
LSC	473	Ichthyology	Systematics and biology of recent and extinct fishes. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	Pre-requisites: must have completed ENG101/105 and LSC370 with a grade of C or greater or be currently enrolled.
LSC	474	Herpetology	Systematics and biology of recent and extinct reptiles and amphibians. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed LSC370 with a grade of C or greater or be currently enrolled.
LSC	482	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed 20 hours of Biological Sciences courses (BIO/LSC).
LSC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	486	Peer Mentoring in the Life Sciences	Advanced students learn and apply mentoring skills in teaching labs.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	492	Honors Directed Study		N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6		
LSC	493	Honors Thesis		N	SEM	N	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6	L	Pre-requisites: Must be an Honors student
LSC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-7		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
LSC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LAB	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LAB	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LTC	343	Landscape Construction I	Landscape constructions focusing on landform transformations. Topics include landform analysis, grading, and earthwork.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: LDE 361
LTC	344	Landscape Construction II	Characteristics of materials and methods used in landscape architectural construction.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: LTC 343 with D or better or currently enrolled; Co-requisites: LAA 345; LDE 362 and LDE 363
LTC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LTC	446	Landscape Construction III	Landscape construction focusing on low-technology, biotechnical, regional, and experimental techniques or systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
LTC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LTC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LTC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LWU	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1.		Pre-requisites: Freshman standing
LWU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LWU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LWU	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Law	Sandra Day O'Connor College of Law	1-12		
LWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		

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MA	513	Algebraic Topology	Rigorous introduction to graph theory. High-level mastery in topics such as trees, cycles, matchings, planarity, connectivity, hamiltonicity, chromatic number, Ramsey theory with emphasis on proof techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAE	100	Introduction to Mechanical and Aerospace Engineering	Introduces mechanical and aerospace engineering, design process, teaming, the profession of mechanical and aerospace engineering, computer models in engineering, communication skills, CAD tools, and programming tools. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2.		Pre-requisites: Aerospace or Mechanical Engineering student
MAE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-3		Pre-requisites: MAE Freshman student
MAE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	212	Engineering Mechanics	Force systems, resultants, moments and equilibrium. Kinematics and kinetics of particles, systems of particles and rigid bodies. Energy and momentum principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Mech & Aero student; PHY 121 C or better; Pre/Co-requisite: MAT 274 or 275 C or better OR Non Mech & Aero student; PHY 121; Pre/Co-requisite: MAT 274 or 275
MAE	213	Solid Mechanics	Equilibrium, strain-displacement relations, and stress-strain-temperature relations. Applications to force transmission and deformations in axial, torsional, and bending of bars. Combined loadings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: MAE 212, ECE 210 or ECE 214 completed with C or better or currently enrolled in MAE 212; MAT 274 or MAT 275 completed with C or better or currently enrolled
MAE	214	Computer-Aided Engineering I	Introduces geometry and construction techniques in CAD, technical drawing conventions, generating drawings from CAD models. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		Pre-requisites: A grade of C or better in MAE 212 or (ECE 212 or ECE 214) OR be co-enrolled in MAE 212.
MAE	240	Thermofluids I	Introductory concepts of thermodynamics, fluid mechanics, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Mechanical & Aerospace Engr students with MAE 212 (or ECE 212 or ECE 214) with C or better or CEE 211 with D or better OR Non MAE students with CEE 211, MAE 212 (or ECE 212 or ECE 214) with D or better
MAE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6		
MAE	313	Aircraft Dynamics and Control	Aircraft static stability; equations of motion; dynamic modes and stability; stability derivatives; response to controls; introduces automatic control of aircraft.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MAE 318 and MAE 360 with C or better
MAE	318	Sensors and Controls	Introduces measurement systems, feedback control modelling and dynamics of physical systems, computer simulations and real-time experiments. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	5.		Pre-requisites: Engineering BS/BSE student; MAE 212 or CEE 211 with a C or better; EEE 202 with a C or better
MAE	322	Structural Mechanics	Three-dimensional stress analysis, failure theories, energy methods, finite elements, torsion of noncircular members, unsymmetrical bending, beam column, fatigue and fracture. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE student; MAE 213, MAT 343, & MAE 384 with D or better, (or co-enrolled in MAE 384)
MAE	323	Computer-Aided Engineering II	Introduces finite-element analysis, pre- and postprocessing, solving problems with FEA. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2.		Pre-requisites: Engineering BS/BSE student; MAE 214 with D or better; Pre- or Co-requisite: MAE 322 (with D or better if completed)
MAE	340	Thermofluids II	Intermediate concepts of thermodynamics, fluid mechanics, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 240 with a D or better
MAE	341	Mechanism Analysis and Design	Positions, velocities, and accelerations of machine parts; cams, gears, flexible connectors, and rolling contact; introduces synthesis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; MAE 212 with a C or better
MAE	342	Principles of Mechanical Design	The design process; conceptual and embodiment design of mechanical elements; form synthesis; material selection, failure modes, manufacturability tolerances, common mechanisms and machine elements. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with D or better; MAE 322 with D or better; Pre- or Co-requisite: MAE 318 (with D or better if completed)
MAE	344	Fundamentals of Aerospace Design	Design theory and design tools applied to aerospace engineering. Engineering drawings, solid modeling, RFP's, Federal Aviation Regulations and military specifications, aircraft sizing, rapid prototyping. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MAE 214, 322, 360 and 384 with a C or better
MAE	345	Structures in a Space Environment	Space mission environment; mechanical behavior of materials and structures for space; analysis and design of space structures; finite element procedures.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students; MAE 213 and MAE 384 with D or better; Pre or Co-requisites: MAE 318 (with D or better if completed)
MAE	351	Manufacturing Processes	Production technique and equipment. Casting and molding, forming, machining, joining and assembly, computer-integrated manufacturing, rapid prototyping, and electronics manufacturing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with D or better

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MAE	360	Aerodynamics	Airfoils and wings, ideal flow, panel methods, boundary layers, finite-difference solutions, wind-tunnel testing. Both MAE 362 and MAE 360 must be taken to secure L General Studies credit. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.	L	Pre-requisites: Engineering BS/BSE students; MAE 240 with D or better; ENG 102, ENG 105 or ENG 108 with C or better; MAE 384 or CEE 384 with D or better or Co-requisite: MAE 384
MAE	362	High-Speed Aerodynamics	Compressible flow at subsonic and supersonic speeds; ducts, nozzles, and diffusers; normal and oblique shocks, transonic flow, numerical solutions; experimental applications. Both MAE 362 and MAE 360 must be taken to secure L General Studies credit. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.	L	Pre-requisites: Engineering BS/BSE students; MAE 360 and MAE 384 with D or better
MAE	372	Fluid Mechanics	Applies basic principles of fluid mechanics to problems in viscous and compressible flow.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 360 with D or better; MAE 384 with D or better
MAE	382	Thermodynamics	Applied thermodynamics; gas mixtures, psychrometrics, property relationships, power and refrigeration cycles, and reactive systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 240 with D or better
MAE	384	Numerical Methods for Engineers	Numerical methods and computational tools for selected problems in engineering. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	CS	Pre-reqs: Mech & Aero students with MAT274 or 275 & MAT343(or MAT 242) C or better or currently enrolled OR Non Mech & Aero with MAT274 or 275 & MAT242, 342 or 343 with C or better or currently enrolled Pre or Co-req: MAT272 (or MAT267 w/C or better)
MAE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		Pre-requisites: Engineering BS/BSE student
MAE	400	Engineering Profession	Impact of mechanical and aerospace engineering in a global and societal context; effects of and on globalization, environment, sustainability, economy, politics; engineering ethics and business practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Aerospace Engineering or Mechanical Engineering BSE Seniors; MAE 342 or MAE 362 completed with a D or better or currently enrolled
MAE	404	Finite Elements in Engineering	Introduces ideas and methodology of finite element analysis. Applications to solid mechanics, heat transfer, fluid mechanics, and vibrations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 213 or a grade of C or better in ECE 313 AND a grade of D or better in CEE 384, MAE 384 or ECE 384.
MAE	406	CAD/CAM Applications in MAE	Solution of engineering problems with the aid of state-of-the-art software tools in solid modeling, engineering analysis, and manufacturing; selection of modeling parameters; reliability tests on software. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 342, 344, 441 or 444.
MAE	415	Vibration Analysis	Free and forced response of single and multiple degree of freedom systems, continuous systems; applications in mechanical and aerospace systems numerical methods. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 213 with a D or better; CEE 384 or MAE 384 with a D or better
MAE	417	Control System Design	Tools and methods of control system design and compensation, including simulation, response optimization, frequency domain techniques, state variable feedback, and sensitivity analysis. Introduces nonlinear and discrete time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with D or better
MAE	426	Design of Aerospace Structures	Flight vehicle loads, design of semimonocoque structures, local buckling and crippling, fatigue, aerospace materials, composites, joints, and finite element applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 322 with D or better
MAE	434	Internal Combustion Engines	Performance characteristics, combustion, carburetion and fuel-injection, and the cooling and control of internal combustion engines. Computer modeling. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 382 with D or better
MAE	435	Turbomachinery	Design and performance of turbomachines, including steam, gas and hydraulic turbines, centrifugal pumps, compressors, fans, and blowers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 340, 360 361 or 371
MAE	436	Combustion	Thermochemical and reaction rate processes; combustion of gaseous and condensed-phase fuels. Applications to propulsion and heating systems. Pollutant formation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in MAE 340 (or currently enrolled) or MAE 388.
MAE	442	Mechanical Systems Design	Applies design principles and techniques to the synthesis, modeling, and optimization of mechanical, electromechanical, and hydraulic systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students; MAE 318 with D or better; MAE 342 or MAE 344 with D or better
MAE	446	Energy Systems Design	Applies mechanical engineering principles and techniques to modeling, analysis, and synthesis of energy systems and components. Design optimization. Design project.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 with C or better or MAE 382 with D or better
MAE	447	Robotics and Its Influence on Design	Robot applications, configurations, singular positions, and work space; modes of control; vision; programming exercises; design of parts for assembly.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with D or better
MAE	455	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better or currently enrolled; CEE 213, MAE 213 or MSE 211 with D or better or currently enrolled; MAT 343, MAT 242 or MAT 342 with D or better or currently enrolled
MAE	462	Space Vehicle Dynamics and Control	Attitude dynamics and control, launch vehicles, orbital mechanics, orbital transfer/rendezvous, space mission design, space structures, spacecraft control systems design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with D or better
MAE	463	Propulsion	Fundamentals of gas-turbine engines and design of components. Principles and design of rocket propulsion and alternative devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 362 with D or better; MAE 384 with D or better

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MAE	465	Rocket Propulsion	Rocket flight performance; nozzle design; combustion of liquid and solid propellants; component design; advanced propulsion systems; interplanetary missions; testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE plans; MAE 340 or MAE 362 with D or better
MAE	466	Rotary Wing Aerodynamics and Performance	Introduces helicopter and propeller analysis techniques. Momentum, blade-element, and vortex methods. Hover and forward flight. Ground effect, autorotation, and compressibility effects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 360 with D or better
MAE	468	Aerospace Systems Design	Group projects related to aerospace vehicle design, working from mission definition and continuing through preliminary design. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Engineering BS/BSE students; MAE 313 (or MAE 413) with a D or better; MAE 344 (or MAE 444) with D or better; Pre-or Co-requisite: MAE 463 with D if completed
MAE	469	Projects in Astronautics or Aeronautics	Various multidisciplinary team projects available each semester. Projects include design of high-speed rotocraft autonomous vehicles, liquid-fueled rockets, microaerial vehicles, satellites. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student
MAE	471	Computational Fluid Dynamics	Numerical solutions for selected problems in fluid mechanics. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 360 with D or better; MAE 384 or ECE 384 with D or better
MAE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	488	Mechanical Engineering Design I	Conceptual and embodiment design; modeling; rapid prototyping. Team project. MAE 488 and 489 must be taken in consecutive semesters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 340 (or currently enrolled) or MAE 388 AND a grade of D or better in MAE 342 (or currently enrolled) or MAE 441.
MAE	489	Mechanical Engineering Design II	Detail design; fabrication and testing. Team project. MAE 488 and 489 must be taken in consecutive semesters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 488 completed with a D or better or currently enrolled
MAE	491	Experimental Mechanical Engineering	Experimental and analytical studies of phenomena and performance of fluid flow, heat transfer, thermodynamics, refrigeration, and mechanical power systems. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Engineering BS/BSE students; MAE 318 with D or better; MAE 340 with D or better
MAE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6		
MAE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6	L	Pre-requisites: Must be an Honors student.
MAE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-7		Pre-requisites: Engineering students
MAE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-3		
MAE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	501	Linear Algebra in Engineering	Development and solution of systems of linear algebraic equations. Applications from mechanical, structural, and electrical fields of engineering.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students only
MAE	502	Partial Differential Equations in Engineering	Development and solution of partial differential equations in engineering. Applications in solid mechanics, vibrations, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students only
MAE	504	Experimental Methods for Thermal and Fluid Processes	Theory and application of optical diagnostics and microsensors for characterizing thermofluid processes. Measurements include laser spectroscopy, velocimetry, particle sizing, and surface properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	505	Perturbation Methods	Nonlinear oscillations, strained coordinates, renormalization, multiple scales, boundary layers, matched asymptotic expansions, turning point problems, and WKBJ method.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; Credit is allowed for only APM 575 or MAE 505
MAE	506	Advanced System Modeling, Dynamics, and Control	Lumped-parameter modeling of physical systems with examples. State variable representations and dynamic response. Introduces modern control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; MAE 501 with C or better.
MAE	507	Optimal Control	Optimal control of systems. Calculus of variations, dynamic programming, linear quadratic regulator, numerical methods, and Pontryagin's principle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; MAE 506 with C or better

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MAE	510	Dynamics and Vibrations	Lagrange's and Hamilton's equations, rigid body dynamics, gyroscopic motion, and small oscillation theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students
MAE	512	Random Vibrations	Reviews probability theory, random processes, stationarity, power spectrum, white noise process, random response of single and multiple DOF systems, and Markov processes simulation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2-3		Pre-requisites: Graduate Engineering student; CEE 536, MAE 510 or MAE 515 with C or better or currently enrolled
MAE	515	Structural Dynamics	Free vibration and forced response of discrete and continuous systems, exact and approximate methods of solution, response spectra, computational techniques, special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 510 completed with a C or better or currently enrolled
MAE	520	Stress Analysis	Introduces tensors: kinematics, stress analysis, and constitutive assumptions leading to elastic and plastic behavior. Strain energy and energy methods; applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	521	Structural Optimization	Linear and nonlinear programming. Problem formulation. Design sensitivity analysis. FEM-based optimal design of structural and mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 501 with C or better; CEE 526 or MAE 527 with a C or better
MAE	523	Fracture Mechanics	Linear elastic fracture mechanics. Nonlinear problems. Fatigue fracture. Experimental methods in fracture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; CEE 521 or MAE 520 with C or better
MAE	524	Theory of Elasticity	Elastic behavior in two and three dimensions. Airy stress functions and displacement potentials. Elements of fracture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 520 with C or better
MAE	525	Mechanics of Smart Materials and Structures	Modeling and analysis of smart materials and adaptive structures. Application areas include vibration and shape control and damage detection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 510 with C or better
MAE	527	Finite Elements for Engineers	Direct stiffness, method of weighted residuals, weak formulation, and variational techniques in the solution of engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 501 with C or better
MAE	536	Combustion	Thermodynamics; chemical kinetics of combustion. Explosion and ignition theories. Reactive gas dynamics. Structure, propagation, and stability of flames. Experimental methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	540	Advanced Product Design Methodology	Surveys research in engineering design process, artifact and design, knowledge, formal and informal logic, heuristic and numerical searches, theory of structure and complexity.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	541	CADTools for Engineers	Elements of computer techniques required to develop CAD software. Data structures, including lists, trees, and graphs. Computer graphics, including 2- and 3-D algorithms and user interface techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	544	Mechanical Design and Failure Prevention	Modes of mechanical failure; applies principles of elasticity and plasticity in multiaxial state of stress to design synthesis; failure theories; fatigue; creep; impact.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	546	CAD/CAM Applications in MAE	Solution of engineering problems with the aid of state-of-the-art software tools in solid modeling, engineering analysis, and manufacturing; selection of modeling parameters; reliability tests on software. Open only to students without previous credit for MAE 406.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Graduate Engineering student
MAE	547	Mechanical Design and Control of Robots	Homogeneous transformations, 3-D kinematics, geometry of motion, forward and inverse kinematics, workspace and motion trajectories, dynamics, control, and static forces.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	557	Mechanics of Composite Materials	Analysis, design, and applications of laminated and chopped fiber reinforced composites. Micro- and macromechanical analysis of elastic constants, failure, and environmental degradation. Design project.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	561	Computational Fluid Dynamics	Finite-difference and finite-volume techniques for solving the subsonic, transonic, and supersonic flow equations. Method of characteristics. Numerical grid-generation techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	564	Advanced Aerodynamics	Perturbation method. Linearized subsonic and supersonic flows. Thin wing/slender body theories. Lifting surface theory. Panel method computation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	566	Rotary-Wing Aerodynamics	Introduces helicopter and propeller analysis techniques. Momentum, blade-element, and vortex methods. Hover and forward flight. Ground effect, autorotation, and compressibility effects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	571	Fluid Mechanics	Basic kinematic, dynamic, and thermodynamic equations of the fluid continuum and their application to basic fluid models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	572	Advanced High-Speed Flows	Introduces compressible flow. Sound waves and normal shock waves. Quasi-one-dimensional steady flows in variable area ducts with friction, heating, and cooling; unsteady one-dimensional flow, oblique shock waves, Prandtl-Meyer expansions, detonation waves.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better

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MAE	573	Viscous Fluid Flow	Mechanics of fluids for flows in which the effects of viscosity are significant. Exact and approximate solutions of the Navier-Stokes system, laminar flow at low and high Reynolds number.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 completed with C or better or currently enrolled
MAE	575	Turbulence	Homogeneous, isotropic, and wall turbulence. Experimental results. Introduces turbulent-flow calculations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	577	Turbulent Flow Modeling	Reynolds equations and their closure. Modeling of simple and complex turbulent flows, calculations of internal and external flows, and application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	578	Environmental Fluid Dynamics	Studies fluid motions in Earth's hydrosphere and atmosphere on local and regional scales.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	581	Advanced Thermodynamics	Basic concepts and laws of classical equilibrium thermodynamics; applications to engineering systems; introduction and applications of statistical mechanics and kinetic theory; Boltzmann integro-differential equation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	585	Conduction Heat Transfer	Basic equations and concepts of conduction heat transfer. Mathematical formulation and solution (analytical and numerical) of steady and unsteady, one- and multidimensional heat conduction and phase change problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	586	Convection Heat Transfer	Basic concepts and governing equations. Analysis of laminar and turbulent heat transfer for internal and external flows. Natural and mixed convection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	587	Radiation Heat Transfer	Advanced concepts and solution methodologies for radiation heat transfer, including exchange of thermal radiation between surfaces, radiation in absorbing, emitting, and scattering media and radiation combined with conduction and convection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	589	Heat and Mass Transfer	Basic concepts; physical and mathematical models for heat and mass transfer. Applications to conductive, convective, radiative, and combined mode heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		Pre-requisites: Graduate Engineering student
MAE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		
MAE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		Pre-requisites: Graduate Engineering student
MAE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		

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MAE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-15		
MAE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		
MAE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-15		
MAK	101	Elementary Macedonian	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	102	Elementary Macedonian	See MAK 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	201	Intermediate Macedonian	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	202	Intermediate Macedonian	See MAK 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	311	Macedonian Composition and Conversation	Advanced communicative proficiency and writing development. Intended for students enrolled in ASU Study Abroad University of Ss. Kiril and Metodij.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	312	Macedonian Composition and Conversation	Advanced communicative proficiency and writing development. Intended for students enrolled in ASU Study Abroad University of Ss. Kiril and Metodij.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	411	Advanced Macedonian Composition and Conversation	Improves self-expression in oral and written skills, emphasizing vocabulary building and use of newspapers and other materials published in Macedonia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	412	Advanced Macedonian Composition and Conversation	Improves self-expression in oral and written skills, emphasizing vocabulary building and use of newspapers and other materials published in Macedonia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MAS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	501	Models of Inquiry for Contemporary Issues	Critical survey of current models of inquiry, tools, processes, and methods in different fields.	N	DIS	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	502	Perspectives in Interdisciplinary Studies	Introduces interdisciplinarity through explorations of epistemological and rhetorical practices that bridge traditional disciplines.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	505	20th Century Thought: Concepts of Change, Culture and Mind	Introduces graduate-level interdisciplinary study of key thinkers, movements, theories and paradigms in 20th-century thought.	N	DIS	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	511	Technology, Environment and Humanity	Critically analyzes technology in relation to human and environmental issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	512	History and Philosophy of the Social Sciences	Examines the development, historical context, and long-term importance of major theories of human nature from the 17th century until today.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	513	Sociology of Everyday Life	Examines institutional ethnography, a way of exploring the particular and generalized social relations that shape people's everyday experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	529	Latinas and Latinos, Schooling, and Social Inequality	Advanced interdisciplinary understanding of the issues facing Latinas and Latinos in K-16 schooling in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	553	Latin American Cities	Interdisciplinary study of Latin American world cities (e.g., Mexico City, Santiago) emphasizing integration with U.S. cities, including Los Angeles and Phoenix.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MAS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		

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MAS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MAS	585	Capstone Course	Assists students in preparing their capstone project, which represents the culmination of their study for the MA in Interdisciplinary Studies.	N	THE	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3-4		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	510	Science and Religion: Cosmologies and Worldviews	Examines science and religion, stressing modern scientific findings and philosophical and historical debates and dialogues.	N	LEC	N	OPT	New Interdis Arts & Sciences	INACTIVE - Interdisciplinary Studies Graduate	3.		
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	265	Calculus for Engineers I	Limits and continuity, differential calculus of functions of one variable, introduction to integration. Not open to students with credit in MAT 270.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	266	Calculus for Engineers II	Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, Taylor series. Not open to students with credit in MAT 271.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	267	Calculus for Engineers III	Vector-valued functions of several variables, partial derivatives, multiple integration. Not open to students with credit in MAT 272.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	274	Elementary Differential Equations	Introduces ordinary differential equations, adapted to the needs of students in engineering and the sciences. Credit is allowed for only MAT 274 or 275 toward a mathematics degree.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of D or greater or be currently enrolled OR be co-enrolled in MAT 266 or MAT 271

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MAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	343	Applied Linear Algebra	Solving linear systems, matrices, determinants, vector spaces, bases, linear transformations, eigenvectors, norms, inner products, decompositions, applications. Problem solving using MATLAB. Credit is allowed for only MAT 343 or 342 toward a mathematics degree. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed the Unified Placement Test
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
MAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-5		Pre-requisites: Unified Placement Test with a score of 40 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	242	Elementary Linear Algebra	Introduces matrices, systems of linear equations, determinants, vector spaces, linear transformations, and eigenvalues. Emphasizes development of computational skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	2.		
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	260	Technical Calculus I	Analytic geometry, differential, and integral calculus of elementary functions, emphasizing physical interpretation and problem solving. Not open to students with credit in MAT 210, 270, or 290.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	261	Technical Calculus II	Continuation of MAT 260.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	
MAT	262	Technical Calculus III	Infinite series; introduces differential equations and elementary linear algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	
MAT	265	Calculus for Engineers I	Limits and continuity, differential calculus of functions of one variable, introduction to integration. Not open to students with credit in MAT 270.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	266	Calculus for Engineers II	Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, Taylor series. Not open to students with credit in MAT 271.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	267	Calculus for Engineers III	Vector-valued functions of several variables, partial derivatives, multiple integration. Not open to students with credit in MAT 272.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	270	Calculus with Analytic Geometry I	Real numbers, limits and continuity, and differential and integral calculus of functions of 1 variable. Not open to students with credit in MAT 290. The sequence MAT 270 and 271 may be substituted for MAT 290 to satisfy requirements of any curriculum. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher

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MAT	271	Calculus with Analytic Geometry II	Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series. Not open to students with credit in MAT 291. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	272	Calculus with Analytic Geometry III	Vector-valued functions of several variables, multiple integration, and introduction to vector analysis. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	274	Elementary Differential Equations	Introduces ordinary differential equations, adapted to the needs of students in engineering and the sciences. Credit is allowed for only MAT 274 or 275 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of D or greater or be currently enrolled OR be co-enrolled in MAT 266 or MAT 271
MAT	290	Calculus I	Differential and integral calculus of elementary functions; topics from analytic geometry essential to the study of calculus.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	5.		
MAT	291	Calculus II	Further applications of calculus, partial differentiation, multiple integrals, and infinite series.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	5.		
MAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MAT	300	Mathematical Structures	Logic and set theory, induction, functions, order and equivalence relations, cardinality. Emphasizes writing proofs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	L	
MAT	310	Introduction to Geometry	Congruence, area, parallelism, similarity and volume, and Euclidean and non-Euclidean geometry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	340	Theory of Interest	Compound interest, discount rates, annuities, present values, depreciation, and bond valuations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	342	Linear Algebra	Linear equations, matrices, determinants, vector spaces, bases, linear transformations and similarity, inner product spaces, eigenvectors, orthonormal bases, diagonalization, and principal axes. Credit is allowed for only MAT 342 or 343 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	343	Applied Linear Algebra	Solving linear systems, matrices, determinants, vector spaces, bases, linear transformations, eigenvectors, norms, inner products, decompositions, applications. Problem solving using MATLAB. Credit is allowed for only MAT 343 or 342 toward a mathematics degree. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	351	Mathematical Methods for Genetic Analysis	Discrete mathematics, probability, statistics, and associated computer packages. Applications to genomics, bioinformatics, forensics, and DNA/protein sequence patterns. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	362	Advanced Mathematics for Engineers and Scientists	Vector analysis, Fourier analysis, and partial differential equations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	370	Intermediate Calculus	Theory behind basic 1-variable calculus: continuity, derivative, Riemann integral, sequences, and series. Not open to students with a C (2.00) or higher in MAT 371. Credit is allowed for only MAT 370 or 371 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	371	Advanced Calculus I	Real numbers, completeness, sequences/series, continuity, uniform theorems, derivative, Riemann integral, pointwise/uniform convergence, Taylor's theorem. Credit is allowed for only MAT 371 or 370 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	372	Advanced Calculus II	Open, closed, compact sets in $R^{>n}</sup>$ continuity, differentiation, partial differentiation, integration in $R^{>n}</sup>$. Inverse/implicit function theorems. Not open to students with credit in MAT 460.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	410	Introduction to General Topology	Topological spaces, metric spaces, compactness, connectedness, and product spaces.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	415	Introduction to Combinatorics	Enumerating permutations and combinations of sets and multisets, inclusion-exclusion, recurrence relations, generating functions, Pólya theory and combinatorial structures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	416	Introduction to Graph Theory	Trees, cycles, matchings, planarity, connectivity, hamiltonicity, chromatic number, Ramsey theory with emphasis on proof techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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MAT	419	Introduction to Linear Optimization	Simplex method, duality, and network flows. Applications to game theory, geometry, combinatorics, graph theory, and posets.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	420	Scientific Computing	Surveys and applies programming languages, libraries, and scientific visualization tools. Programming assignments emphasize software development skills. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	421	Applied Computational Methods	Numerical methods for quadrature, differential equations, roots of nonlinear equations, interpolation, approximation, linear equations, floating-point arithmetic, and roundoff error.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	423	Numerical Analysis I	Solution of systems of linear and nonlinear equations, optimization, eigenvalues, round-off error, and floating point arithmetic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: Completed MAT 342 (or MAT 343) with a grade of D or better, or currently enrolled
MAT	425	Numerical Analysis II	Analysis of and algorithms for numerical interpolation, integration, and differentiation. Numerical solution of ordinary differential equations, and method of lines. Those seeking a methods survey course should take MAT 421.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	442	Advanced Linear Algebra	Fundamentals of linear algebra, dual spaces, invariant subspaces, canonical forms, bilinear and quadratic forms, and multilinear algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	443	Introduction to Abstract Algebra	Introduces concepts of abstract algebra. Not open to students with credit in MAT 444.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	444	Intermediate Abstract Algebra	Basic theory of groups, rings, and fields, including an introduction to Galois theory. Appropriate as preparation for MAT 543.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	445	Theory of Numbers	Prime numbers, unique factorization theorem, congruences, Diophantine equations, primitive roots, and quadratic reciprocity theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	447	Cryptography	Block ciphers, stream ciphers, congruence arithmetic, information theory, public key cryptosystems, key exchange, electronic signatures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	451	Mathematical Modeling	Detailed study of 1 or more mathematical models that occur in the physical or biological sciences. May be repeated for credit with instructor approval.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	452	Introduction to Chaos and Nonlinear Dynamics	Properties of nonlinear dynamical systems; dependence on initial conditions; strange attractors; period doubling; bifurcations; symbolic dynamics; Smale-Birkhoff theorem; and applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	455	Introduction to Fractals and Applications	Fractals; self-similar structures, fractals with iterated function systems of maps, computing fractals, fractal dimensions, chaotic dynamics on fractals, applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	460	Vector Calculus	Vectors, curvilinear coordinates, Jacobians, implicit function theorem, line and surface integrals, Green's, Stokes', and divergence theorems. Not open to students with credit in MAT 372.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	461	Applied Complex Analysis	Analytic functions, complex integration, Taylor and Laurent series, residue theorem, conformal mapping, and harmonic functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	462	Applied Partial Differential Equations	Second-order partial differential equations, emphasizing Laplace, wave, and diffusion equations. Solutions by the methods of characteristics, separation of variables, and integral transforms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	472	Intermediate Real Analysis I	Introduces analysis in metric spaces with emphasis on the real line. Appropriate as preparation for MAT 570.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	473	Intermediate Real Analysis II	Analysis in \mathbb{R}^n : implicit function theorem, introduction to manifolds, Lebesgue integration, change of variables formula, convergence theorems for integrals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	475	Differential Equations	Linear and nonlinear ordinary differential equations, asymptotic behavior of solutions, stability, existence and uniqueness, limit sets, Poincar-Bendixson theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	476	Partial Differential Equations	First-order quasilinear, second-order linear (wave, Laplace, heat). Characteristics, harmonic functions, maximum principles, Fourier series, separation of variables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	485	History of Mathematics	Topics from the history of the origin and development of mathematical ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MAT	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		

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MAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
MAT	502	Neural Modeling	Mathematical modeling electrochemical processes in nerve. Cable theory, neuronal branching, spines, bifurcation analysis of excitable membrane models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	503	Mathematical Cell Physiology.	Mathematical modeling of dynamical aspects of cell physiology. Diffusion, membrane transport, intracellular calcium channel kinetics, calcium oscillations and waves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	504	Mathematical Aspects of Biotechnology	Bacterial growth, bacterial genetics, gene expression, stoichiometry of metabolic pathways, random walks, diffusion processes, biofilms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	514	Enumerative Combinatorics I	First semester of a systematic development of enumerative combinatorics, including elementary counting techniques, sieve methods, and partially ordered sets.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	515	Enumerative Combinatorics II	Second semester of a systematic development of enumerative combinatorics, including lattices, exponential structures, symmetric functions, and selected special topics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	516	Graph Theory I	First semester of a systematic development of graph theory, including matchings, connectivity, arboricity, planarity, coloring, network flows.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	517	Graph Theory II	Second semester of a systematic development of graph theory, including dense and sparse graphs, Ramsey theory, hamiltonicity, random graphs, minors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	518	Combinatorial Optimization	Systematic development of combinatorial optimization, including linear programming, duality, primal-dual algorithms, network flow algorithms, weighted matchings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	520	Computational Mathematics: Systems of Equations	Solution of linear/nonlinear systems of equations. Least squares. Eigenvalues. Singular value Decomposition. Basic iterative methods. Error analysis, stability. Applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	521	Advanced Computational Mathematics: Systems of Equations	Advanced and latest algorithms for linear/nonlinear systems of equations, Krylov, Arnoldi, multigrid, preconditioning, total least squares. Applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	524	Advanced Scientific Computation	Techniques for linear and nonlinear systems, differential equations, and optimization, emphasizing applications and implementations on latest architectures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	530	Computational Mathematics: Differential Equations	Analysis of and algorithms for numerical interpolation, integration, and differentiation. Numerical solution of ordinary and partial differential equations, introductory level. Applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	533	Computational Elliptic and Parabolic Partial Differential Equations	Parabolic and elliptic equations, finite difference, finite element methods, stability, consistency, convergence, practical aspects, applications, software.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites:Completed MAT 371 and MAT 530(or MAT 425) with a D or better or currently enrolled
MAT	534	Computational Hyperbolic Partial Differential Equations	Numerical solutions of hyperbolic PDEs, finite difference methods, well-posedness, stability, consistency, convergence, adaptive grids; Maxwell's equations, elastic wave propagation; Navier-Stokes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	535	Numerical Spectral Methods	Spectral, pseudospectral theory; Galerkin, collocation methods; Tau-methods, global approximation properties, stability; convergence; solutions for linear, nonlinear systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	543	Abstract Algebra	Groups, modules, rings and fields, Galois theory, homological algebra, and the representation theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	544	Abstract Algebra	Continuation of MAT 543.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	551	Linear Operators and Integral Equations	Bounded linear and compact operators on Hilbert spaces. Linear integral equations, Fredholm and Hilbert-Schmidt theory, and approximate methods. Distributions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	560	Applied Dynamical Systems Methods	Applies modern dynamical systems methods to fluid mechanics: bifurcations, normal forms, nonlinear dynamics, pattern formation, mixing, and Lagrangian chaos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	570	Real Analysis	Lebesgue integration, selected function spaces, differentiation, abstract measure theory, and elements of functional analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	571	Real Analysis	Continuation of MAT 570.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	572	Complex Analysis	Analytic functions, series and product representations, entire and meromorphic functions, normal families, Riemann mapping theorem, harmonic functions, and Riemann surfaces.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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MAT	573	Complex Analysis	Continuation of MAT 572.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	574	Theory of Ordinary Differential Equations	Systems, existence proofs, singularities, asymptotic behavior of solutions, boundedness of solutions, eigenvalues and eigenfunctions, and perturbation theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	575	Theory of Ordinary Differential Equations and Dynamical Systems	Geometric approach to ODEs and dynamical systems; (un)stable, center manifolds; structural stability; normal forms; averaging; chaos; persistence. May be repeated for credit with instructor approval.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	576	Theory of Partial Differential Equations	Existence and uniqueness theorems, boundary value and initial value problems, characteristics, Green's functions, maximum principle, distributions, and weak solutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	577	Theory of Partial Differential Equations	Continuation of MAT 576.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	578	Functional Analysis	Locally convex, normed, and Hilbert spaces. Linear operators, spectral theory, and application to classical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	579	Functional Analysis	Continuation of MAT 578.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MAT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MAT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed the Unified Placement Test
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-5		
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	270	Calculus with Analytic Geometry I	Real numbers, limits and continuity, and differential and integral calculus of functions of 1 variable. Not open to students with credit in MAT 290. The sequence MAT 270 and 271 may be substituted for MAT 290 to satisfy requirements of any curriculum. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	271	Calculus with Analytic Geometry II	Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series. Not open to students with credit in MAT 291. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	272	Calculus with Analytic Geometry III	Vector-valued functions of several variables, multiple integration, and introduction to vector analysis. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of D or greater or be currently enrolled OR be co-enrolled in MAT 266 or MAT 271
MAT	300-W	Mathematical Structures	Introduces rigor and proof in mathematics. Basic logic, set theory, mathematical induction, combinatorics, functions, relations, and problem solving.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	Pre-requisite: ENG 101 or ENG 105 with C or better
MAT	310	Introduction to Geometry	Congruence, area, parallelism, similarity and volume, and Euclidean and non-Euclidean geometry.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT272 with a grade of C or greater or be currently enrolled.
MAT	342-W	Linear Algebra	Linear equations, matrices, determinants, vector spaces, bases, linear transformations and similarity, inner product spaces, eigenvectors, orthonormal bases, diagonalization, and principal axes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT272 with a grade of C or greater or be currently enrolled.
MAT	371-W	Advanced Calculus I	Continuity, Taylor's theorem, partial differentiation, implicit function theorem, vectors, linear transformations and norms in \mathbb{R}^n , multiple integrals, and power series.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	411	History and Philosophy of Mathematics	Examines nature of mathematics from origins to present, revealed by its history and philosophy. Strong background in mathematics not required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	HU & H	
MAT	421	Applied Computational Methods	Numerical methods for quadrature, differential equations, roots of nonlinear equations, interpolation, approximation, linear equations, floating-point arithmetic, and roundoff error.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
MAT	443-W	Abstract Algebra	Introduces the most important algebraic structures, including groups, rings, integral domains, and fields.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	445	Theory of Numbers	Prime numbers, unique factorization theorem, congruences, Diophantine equations, primitive roots, and quadratic reciprocity theorem.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	450	Mathematical Models in Biology	Introduces mathematical models in biological systems. Applications range from the cellular level to systems level and may include applications from areas such as physiology, ecology, epidemiology, population biology, computational and systems biology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
MAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed the Unified Placement Test
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MBB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	245	Introductory Cellular and Molecular Biology	Concepts that underlie relationships between cellular and subcellular structure and function, and integration of major metabolic and genetic processes. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
MBB	247	Applied Biosciences: Biotechnology	Applies concepts of molecular and cellular biology of bacteria, animals, and plants to real-world problems. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
MBB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	343	Genetic Engineering and Society	Introduces genetic engineering with emphasis on applications (gene therapy, DNA fingerprinting, bioremediation, transgenic animals and plants). Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	
MBB	350	Applied Genetics	Introduces molecular genetics with emphasis on application of genetics in solving biological questions and engineering organisms in biotechnology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
MBB	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	
MBB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	440	Functional Genomics	Functional relevance of genomic structures; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MBB	445	Techniques in Molecular Biology/Genetics	Molecular genetic principles: plasmid construction, purification, and characterization; PCR; mutageneses; hybridization and sequence analysis; protein quantitation, immunologic detection, and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
MBB	446	Techniques in Molecular Biology/Genetics Lab	Molecular genetic techniques; plasmid construction, purification, and characterization; PCR; mutageneses; hybridization and sequence analysis; protein quantitation; immunologic detection and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
MBB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MBB	490	Capstone: Issues in Biotechnology	Integrates science and humanities within problem-solving exercises dealing with intellectual property, ethics, regulatory issues, business practices, and commercialization. Must be taken twice to receive L General Studies credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	
MBB	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		
MBB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
MBB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		

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MBB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
MBB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
MCB	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	501	Seminar: Molecular and Cellular Biology Colloquium	Presentation of current research by noted researchers in the field. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	540	Functional Genomics	Functional relevance of genomic sequences; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MCB	555	Advanced Molecular and Cellular Biology I	Study of structural and functional organization of biomolecules and cells, based on current literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MCB	556	Advanced Molecular and Cellular Biology II	Continuation of MCB 555.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MCB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MCB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	701	Seminar: Molecular and Cellular Biology Colloquium	Presentation of current research by noted researchers in the field. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
MCB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		

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MCB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
MCE	548	Multicultural Perspectives on Teaching and Learning	Facilitates understanding of key components related to cultural diversity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
MCE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
MCE	230	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
MCE	230	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
MCE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	447	Diversity in Families and Communities in Multicultural Settings	Diversity and the changing role of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
MCE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
MCE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
MCE	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MCE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
MCE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
MCE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
MCN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MCO	498	Pro Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	N	LEC	N	OPT	College of Public Programs	Arizona State University	1-7		
MCO	120	Media and Society	Role of newspapers, magazines, radio, television, and motion pictures in American society. Credit is allowed for only MCO 120 or 110. Designed for nonmajors.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	SB	
MCO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-3		
MCO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-4		
MCO	200	Introduction to Electronic Media	Surveys electronic media in the United States: history, regulation, organization, programming, and effects.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		
MCO	240	Media Issues in American Pop Culture	Examines the production and consumption of popular culture as disseminated by the mass media with emphasis on the societal implications.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		
MCO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-4		
MCO	302	Media Research Methods	Surveys research methods used in the social sciences, with a focus on mass communication.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Communication student with a cumulative GPA of at least 2.0
MCO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-4		
MCO	418	History of Mass Communication	American journalism from its English and colonial origins to the present day. Development and influence of newspapers, magazines, radio, television, and news gathering agencies.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	SB & H	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	421	Media Problems	Trends and problems of the mass media, emphasizing editorial decisions in the processing of information.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Minimum 2.25 GPA; Journalism & Mass Comm student OR Graduate Mass Communications student
MCO	430	International Mass Communication	Comparative study of communication and media systems. Information gathering and dissemination under different political and cultural systems.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	G	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	435	Emerging Media Technologies	Surveys new mass communication technologies and media distribution platforms in a convergent mass media environment.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	440	Applied Media Research	Design, conduct, and analysis of applied media research. Students participate in the Cactus State Poll.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.5 GPA OR graduate Mass Communication student
MCO	450	Visual Communication	Theory and tradition of communication through the visual media with emphasis on the continuity of traditions common to modern visual media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	HU	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student

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MCO	455	War and Mass Media	Provides a better understanding of the role and impact of the mass media in shaping public perceptions about one of humanity's most monumental undertakings, the act of war. Through a combination of lectures, readings, documentaries, and motion pictures, examines and critically analyzes media portrayals, real and fictional, of issues, events, and the changing dynamic among: the government, the military, and public opinion as shaped by the media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate, and image creation.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	SB	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	460	Race, Gender, and Media	Readings seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	C	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	465	Sports and Media	Designed for aspiring journalists and media users, explores why great sports journalism is essential to our society. Establishes the goals, dreams, and expectations for sports journalism and introduces ethical philosophy and popular ethical models and decision-making tools. Students then apply these tools to sports journalism.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	470	Issues Management and Media Strategy	Strategic aspects of media planning and management in public relations, public affairs, crisis communication lobbying, media ethics, and government relations.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR Graduate Mass Communication student
MCO	473	Sex, Love, and Romance in the Mass Media	The role of the mass media in constructing and/or reinforcing unrealistic mythic and stereotypic images of sex, love, and romance.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.	SB	
MCO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-12		
MCO	492	Honors Directed Study		N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-6		Pre-requisites: Must be an Honors student
MCO	493	Honors Thesis		N	LEC	N	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-6	L	Pre-requisites: Must be an Honors student
MCO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-4		
MCO	497	Honors Colloquium		Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-6		
MCO	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-12		
MCO	501	Newswriting and Reporting	Designed for graduate students in the MMC program who have undergraduate degrees in nonjournalism areas. Objective is to teach fundamentals of writing and reporting. Fee.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisite: Masters of Mass Communication student
MCO	503	Media Law	Examines philosophical and legal aspects of press freedom. Emphasizes First Amendment theory evolution from 1791 to present.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisite: Masters of Mass Communication student
MCO	510	Media Research Methods	Professional approach to online and library research, getting and using public records, and investigative journalism techniques.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisite: Masters of Mass Communication student
MCO	520	Mass Communication Theories and Process	Analyzes various theoretic models of mass communication with emphasis on the applications of these theories to various professional communication needs.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisite: Masters of Mass Communication student
MCO	522	Mass Media and Society	Mass media as social institutions, particularly interaction with government and public. Emphasizes criticism and normative statements.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisite: Masters of Mass Communication student
MCO	525	21st-Century Media Organization and Entrepreneurship	Focuses on the future of journalism, the future of journalism business organizations and entrepreneurship, new media experiences, online solutions to popular media problems, financial realities of the media, and media innovation.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisite: Masters of Mass Communication student
MCO	530	History, Philosophy, and Ethics of Journalism	Explores contemporary news media ethical problems in a seminar setting. Uses journalism ethical perspectives to obtain keys to unlock contemporary dilemmas surrounding the news media.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisite: Masters of Mass Communication student

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MCO	531	Advanced Broadcast Reporting	News and information practices of networks, stations, and industry. Practice in writing, reporting, and editing with emphasis on video.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisite: Masters of Mass Communication student
MCO	540	Historical/Legal Methods	Introduces legal and historical methods necessary to conduct qualitative mass communication research.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		
MCO	560	Arizona Media Law	Case study approach to first amendment issues, media access, libel, confidentiality, and invasion of privacy as applied to media organizations in Arizona.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	3.		Pre-requisite: Masters of Mass Communication student
MCO	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-12		
MCO	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-12		
MCO	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-12		
MCO	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-12		Pre-requisite: Masters of Mass Communication student
MCO	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-12		
MCO	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-12		
MCO	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1.		
MCO	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm D	1-4		Pre-requisite: Masters of Mass Communication student
MCO	120	Media and Society	Role of newspapers, magazines, radio, television, and motion pictures in American society. Credit is allowed for only MCO 120 or 110. Designed for nonmajors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
MCO	240	Media Issues in American Pop Culture	Examines the production and consumption of popular culture as disseminated by the mass media with emphasis on the societal implications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
MCO	418	History of Mass Communication	American journalism from its English and colonial origins to the present day. Development and influence of newspapers, magazines, radio, television, and news gathering agencies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
MCO	430	International Mass Communication	Comparative study of communication and media systems. Information gathering and dissemination under different political and cultural systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
MCO	450	Visual Communication	Theory and tradition of communication through the visual media with emphasis on the continuity of traditions common to modern visual media.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
MCO	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate, and image creation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
MCO	460	Race, Gender, and Media	Readings seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	C	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MET	150	Introduction to Engineering Technology	Introduces mechanical, manufacturing, and aeronautical engineering technology. Covers aspects of the industries utilizing these majors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		
MET	160	CADD and Solid Modeling	Uses 3-D solid modeling software to model mechanical parts and produce valid engineering drawings, including use of geometric dimensioning and tolerancing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		

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MET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
MET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	211	Statics	Vectors, forces and moments, force systems, equilibrium, analysis of basic structures and structural components, friction, centroids, and moments of inertia. May be repeated for credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 111 or PHY 121 with a D or better or Co-enrolled in PHY 121; APM 265, MAT 260 or MAT 270 with D or better or Co-enrolled in MAT 260 or MAT 270
MET	230	Introduction to Engineering Materials	Introduces materials and their properties, emphasizing basic concepts and structures and how these properties relate to manufacturing and design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
MET	231	Manufacturing Processes	Design documentation and material processes on plastics, ferrous and nonferrous materials, emphasizing orthographic projection, geometric dimensioning and tolerances.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	300	Applied Material Science	Principles of materials science emphasizing concepts relevant to design, manufacturing, and use. Covers metals, polymers, ceramics, and composites.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation BAS student OR MET 230, MET 231 or MSE 250 with D or better
MET	302	Welding Survey	Theory and application of industrial welding processes; introductory welding metallurgy and weldment design; SMAW, GTAW, GMAW, oxyacetylene, and brazing experiences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisite: College of Technology and Innovation or Fulton Engineering students
MET	309	Nondestructive Testing and Quality Assurance	Part and material inspection using metrology and nondestructive inspection tools and techniques. Theory and application with use of pertinent standards.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: MET 231 with D or better OR Materials Joining Mfg Tech or Manufacturing Tech & Mgt BAS student
MET	313	Applied Mechanics of Materials	Stress, strain, stress-strain relations. Axial, shear, bending, torsional and combined loads and deflections.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisite: CON 221, ECE 210, ETC 211, MAE 212 or MET 211 with D or better OR College of Technology and Innovation MS Tech student
MET	314	Applied Mechanics of Materials Laboratory	Measurements of loads and deformations relating stress and strain in axial, shear, bending, torsional, and combined loading configurations.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: ECE 313, MAE 213 or MET 313 with D or better or Co-requisite: MET 313
MET	321	Introduction to Automotive Engineering	Engineering principles and the design of ground vehicles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312; MET 313; MET 340 completed with a grade of D or better
MET	331	Machine Design I	Applies mechanics to design of machine elements and structures. Stress analysis, failure modes, tolerances, cylindrical fits, and shaft design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: CON 323, ECE 313, ETC 313, MAE 213 or MET 313 with D or better OR College of Technology and Innovation Graduate student
MET	340	Engineering Thermo-Fluids I	First and second laws of thermodynamics, systems, processes, equations of state, property tables. Fluid statics, conservation of momentum, Bernoulli's equation, applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 112 or PHY 131 with D or better; APM 266, APM 271, MAT 261, MAT 266 or MAT 271 with D or better
MET	341	Manufacturing Analysis	Organizational and functional requirements for effective production. Analysis of industrial specifications, geometric dimensioning and tolerancing, costs, and group technology. Writing assembly production plans.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231 with D or better or College of Technology and Innovation BAS or MS Tech student
MET	344	Casting and Forming Processes	Analyzes various forming processes to determine load requirements necessary for a particular metal-forming operation. Information used to select equipment and design tooling. Metal casting processes and design of castings. Introduces powder metallurgy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 300 (ECE 350) with D or better OR College of Technology and Innovation BAS or MS Tech student
MET	345	Advanced Manufacturing Processes	Material removal processes emphasizing advanced turning, milling, and machinability studies using cutting tools. CNC programming for machining and turning centers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231 with D or better OR College of Technology and Innovation BAS or MS Tech student
MET	351	Introduction to Automation	Introduces automation. Topics include assembly techniques, fixed and flexible automation systems, robots, material-handling systems, sensors, and controls.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EEE 202, EET 208 or ETC 201with D or better
MET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	396	Professional Orientation	Topics related to a successful career in engineering technology industry. Includes safety, life-long learning, ethics, and career planning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisite: Junior or Senior standing
MET	400	Materials and Joining Processes	Effects of joining processes on metals and composites. Thermal cycle effects on solid-state and liquid-solid material transformations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	401	Quality Assurance	Statistical quality control methods, design of experiments, sampling, gauge requirements and specifications, use of quality assurance tools.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: APM 301 with D or better
MET	402	Advanced Material Joining	In-depth analysis of common materials-joining processes and their process parameters. Includes automation, soldering, and adhesive bonding. Lecture, lab.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	409	Applied Engineering Economics	Fundamentals of engineering economics in a practical, industry-based approach. Includes effects of depreciation, taxes, inflation, and replacement analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		

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MET	410	Manufacturing Resource Management	Measures like cycle time, throughput, capacity, work-in-process, inventory, variability, and how they drive operating relationships in a factory. Credit is allowed for only MET 410 or 510.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 341 with D or better
MET	415	Manufacturing Simulation	Computer simulation of manufacturing operations. Discrete event simulation models range from individual processes to whole factories.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 341 with D or better
MET	416	Applied Computer-Integrated Manufacturing	Techniques and practices of computer-integrated manufacturing as applied in a broad range of industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.	CS	Pre-requisites: MET 341 with D or better OR Materials Joining Mfg Tech or Manufacturing Tech & Mgt BAS students OR College of Technology and Innovation or Fulton Engineering Graduate students
MET	418	Composites Materials Manufacturing	Introduces composite materials and associated manufacturing issues, including tooling, processes, and quality control. Related issues, including testing and joining. Credit is allowed for only MET 418 or 518.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must have received a D or greater in MET300 or MSE420 or be currently enrolled in OR must be in a Tech Sci Grad student OR Engr student AND be at least a senior.
MET	421	Vehicle Powertrains	Internal combustion engine design, performance and operation, and power transmission systems within vehicles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312, MET 313, MET 340, with a grade of D or better
MET	423	Vehicle Chassis and Running Gear Design	Design and manufacture of chassis, structures, steering and braking systems and components, wheels and tires, suspension systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312, MET 331 completed with a grade of D or better
MET	424	Vehicle Electrical Systems	Vehicle electrical power and signal systems, computer control and analog control systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:MET 321, MET 351, MET 421 completed with a grade of D or better
MET	426	Vehicle Thermal Design	Heat management in vehicle systems, including thermal design of engine and transmission cooling systems, cabin heating, and air conditioning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	427	Vehicle System Integration and Testing	Systems engineering principles. Design of the interfaces between vehicle subsystems. Testing of integrated systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:MET 423, & MET 424 with a grade of D or better
MET	432	Engineering Thermo-Fluids II	Thermodynamic analysis of mixtures and power cycles. Design and analysis of fluid systems, conduction heat transfer, and introduction to convection and radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		May not enroll in MET 432, if received a D or better in EGR 432
MET	433	Thermal Power Systems	Analyzes gas power, vapor power, and refrigeration cycles. Components of air conditioning systems. Direct energy conversion. Psychrometry. Analyzes internal combustion engines and fluid machines.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Pre-requisites: MET 432 with D or better OR College of Technology and Innovation MS, MSE, MS Tech or PhD student
MET	434	Engineering Thermo-Fluids III	Transient conduction, convection and radiation heat transfer, heat exchangers, thermo-fluid systems engineering.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 with a grade of D or better, or currently enrolled
MET	435	Alternate Energy Sources	Alternate energy systems, energy use and its impact on the environment, and demonstrating practical alternative energy sources to fossil fuels.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	436	Turbomachinery Design	Applies thermodynamics and fluid mechanics to the analysis of machinery design and power cycle performance predictions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 434 with D or better; MET 340, ECE 340 or ETC 340 with D or better OR College of Technology and Innovation MS or MS Tech or Fulton Engineering MS, MSE or PhD student
MET	437	Design for Materials Joining	Uses design principles to analyze structures and determine appropriate weld/braze/solder or adhesive joint size. Uses welding codes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	438	Machine Design II	Applies mechanics to the design of machine elements and structures. Emphasizes basics of gears, springs, brakes, clutches, and bearings.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 331 with D or better OR College of Technology and Innovation MS or MS Tech or Fulton Engineering MS,MSE or PhD student
MET	440	Finite Element Analysis	Analyzes machine elements, frames, and aerospace structures employing finite element analysis and software. Includes sensitivity analysis and estimating accuracy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 331 with D or better
MET	442	Specialized Production Processes	Nontraditional manufacturing processes, emphasizing EDM, ECM, ECG, CM, PM, HERF, EBW, and LBW.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET with D or better OR College of Technology and Innovation MS or MS Tech or Fulton Engineering MS, MSE or PhD student
MET	443	CNC Computer Programming	Theory and application of N/C languages using CAM software and CNC machine tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 345 with D or better OR College of Technology and Innovation MS or MS Tech or Fulton Engineering MS, MSE or PhD student
MET	444	Production Tooling	Design and fabrication of jigs, fixtures, and special industrial tooling related to manufacturing methods.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 345 with D or better OR College of Technology and Innovation MS or MS Tech or Fulton Engineering MS, MSE or PhD student
MET	452	Implementation of Robots in Manufacturing	Robotic workcell design, including end effectors, parts presenters, and optimum material flow.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 351 with D or better OR College of Technology and Innovation MS or MS Tech or Fulton Engineering MS, MSE or PhD student
MET	455	Automation Systems Integration	Applies sensors and devices and their integration with PLCs and computers into automated devices and systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	460	Capstone Project I	Group project designing, evaluating, and analyzing components, assemblies, and systems. Develop products/manufacturing techniques demonstrating state-of-the-art technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Senior academic level; MET 331 and MET 345 with D or better OR College of Technology and Innovation MS or MS Tech or Fulton Engineering MS, MSE or PhD student
MET	461	Capstone Project II	Small-group projects applying manufacturing techniques, with emphasis on demonstrating state-of-the-art technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Senior academic level; MET 460 with D or better OR College of Technology and Innovation MS or MS Tech or Fulton Engineering MS, MSE or PhD student
MET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-6		
MET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student

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MET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Minimum Junior status; College of Technology and Innovation or Fulton Engineering student
MET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Must be at least Junior academic level; Manufacturing Engineering Tech student OR College of Technology and Innovation MS or MS Tech or Fulton Engineering MS, MSE or PhD student
MET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
MET	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	501	Statistical Quality Control Applications	SPC problem-solving techniques for implementation in industrial setting; design and analysis of experiments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	502	Specialized Production Processes	Specialized production processes including lasers, electronic beam, abrasive and water jet, and chemical and thermal processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	504	Applications of Production Tooling	Design and fabrication of fixtures, jigs, templates, and specialized industrial tooling for manufacturing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	507	Manufacturing Enterprise	Organization and project management of cellular manufacturing methods, including IIT and lean manufacturing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	509	Applied Engineering Economics	Fundamentals of engineering economics in a practical, industry-based approach. Includes effects of depreciation, taxes, inflation, and replacement analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	510	Manufacturing Resource Management	Measures like cycle time, throughput, capacity, work-in-process, inventory, variability, and how they drive operating relationships in a factory. Credit is allowed for only MET 510 or 410.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	512	Introduction to Robotics	Introduces industrial robots. Topics include: robot workspace, trajectory generation, robot actuators and sensors, design of end effectors, and economic justification. Application case studies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level OR Graduate or Non-degree students
MET	513	Advanced Automation	Analysis and design of hard and flexible automation systems. Particular attention to material-handling technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Minimum Senior Standing; College of Technology and Innovation or Fulton Engineering
MET	514	CNC Computer Programming	Theory and application of N/C languages using CAM software and CNC machine tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	515	Manufacturing Simulation	Computer simulation of manufacturing operations. Discrete event simulation models range from individual processes to whole factories.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	516	Applied Computer-Integrated Manufacturing	Techniques and practices of computer-integrated manufacturing as applied in a broad range of industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level OR Graduate or Non-degree students
MET	518	Composites Materials Manufacturing	Introduces composite materials and associated manufacturing issues, including tooling, processes, and quality control. Related issues, including testing and joining. Credit is allowed for only MET 518 or 418.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		

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MET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		
MET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
MGT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-3		
MGT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
MGT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
MGT	300	Organization and Management Leadership	Analyzes strategic, behavioral, and human resource management perspectives, including principles of strategic management and leadership of human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-reqs: W.P. Carey BS or BA student OR non-business with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and min 56 earned hrs; ACC 241, ECN 221, PGS 101 or 304, SOC 101 or 301; Pre or Co-req:SCM 300 or 303 with grade of C or greater
MGT	301	Principles of Management	Introduces the theoretical and practical foundations of organizations with a focus on individuals, groups, and organizational systems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: School of Global Management and Leadership student.
MGT	302	Principles of International Business	Multidisciplinary analysis of international economic and financial environment. Operations of multinational firms and their interaction with home and host societies.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.	G	Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA, min 2.5 ASU business GPA and 56 earned hours; Must have completed ECN 212 or 214 with a grade of C or greater.
MGT	303	Honors Organizational Strategies, Leadership, and Behavior	Overview of business strategy principles, management processes, motivation, and leadership	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Must be an Honors student; Must have PGS 101 or 304, and SOC 101 or 301 with a grade of C or better.
MGT	310	Collaborative Team Skills	Development of skills in managing and working in collaborative environments. Theories and applications in small group dynamics and team facilitation.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-reqs: W.P. Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours.
MGT	320	Managing People in Organizations	Management processes, fundamentals of business-level strategy, individual difference issues, motivation and leadership of people in organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-reqs: W.P. Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours.
MGT	350	Seminar in International Business	Broad exposure to global business; cross-cultural differences across business disciplines; European Union history and future; impact of exchange rates.	N	FLD	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student; SCM 300 with C or better, OR Non-business student with min 2.0 ASU cum GPA and 56 earned hrs and MGT 380 with C or better
MGT	380	Management and Strategy for Nonmajors	Introduces the functions and applications of management in organizations, including controlling, decision making, leadership, motivation, planning, and social responsibility. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Non-business student with a minimum ASU cumulative GPA of 2.00 and a minimum of 56 earned hours, OR Non degree or Grad student
MGT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W. P. Carey BS or BA student; Pre- or Co-requisite: ACC 240 or ACC 241 with C grade or better.
MGT	400	Cultural Factors in International Business	Cultural role in international business relations; applied principles of cross-cultural communications, negotiations, and management; regional approaches to business relations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	C & G	Pre-requisites: W.P. Carey BS student, OR non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hrs; ECN 306 or MGT 302 or IBS 300; MGT 300 or 310 or 303 completed with a grade of C or greater or currently enrolled
MGT	410	Responsible Leadership	Values, core beliefs, legal and ethical mandates and cultural norms as they apply to the conduct of organizations; application through a Service Learning project.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey Management BS student; MGT 310, AND MGT 320 or MGT 303, AND ENG 302 completed with a grade of C or greater or be currently enrolled.
MGT	411	Leading Organizations	Comprehensive overview of leadership in organizations. Provides students with understanding of leadership research and its applications to global organizations and the development of leaders.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.		Pre-requisites: Must be a Global Business/Ldrshp Mngt or Global Business/Human Resource student with conditional or professional status AND completed MGT 301 with a grade of C or greater or be currently enrolled.
MGT	412	Managing Human Resources	Overview of domestic and global human resources management topics pertinent to managers and first-line supervisors, as well as those with interest in human resources management.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.		Pre-requisites: Global Business/Ldrshp Mngt or Global Business/Human Resource student with conditional or professional status, must not have earned credit for HRM 410, AND completed MGT 301 with a grade of C or greater.
MGT	420	Performance Management	Development of skills and knowledge to lead associates effectively: hiring, developing, evaluating, retaining, and rewarding employees. Preparation for leadership roles.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey Management BS student; MGT 310, AND MGT 320 or MGT 303 completed with a grade of C or greater or be currently enrolled.
MGT	440	Small Business and Entrepreneurship	Opportunities, risks, and problems associated with small business development and operation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student, MGT 300 or MGT310 or MGT 303 completed with a grade of C or greater.
MGT	445	Business Plan Development	Develops a complete strategic business plan emphasizing the planning process undertaken by successful small business owners and entrepreneurs.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student, OR non-business students with a minimum 2.5 ASU cumulative GPA and a minimum 2.5 ASU business GPA and at least 56 earned hours; MGT 440 completed with a grade of C or greater.

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MGT	450	Changing Business Processes	Describes and analyzes business processes. Generates and evaluates alternatives. Creates improvement and implementation plans.	N	FLD	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: W.P. Carey Management BS or BA student; have completed ENG 302 or 301, FIN 300, MKT 300; have completed MGT 410 AND MGT 420 with a C or greater.
MGT	459	International Management	Concepts and practices of multinational and foreign firms. Objectives, strategies, policies, and organizational structures for operating in various environments.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	G	Pre-reqs: W. P. Carey BS or BA student, OR non-bus with min 2.5 ASU cum GPA and min 2.5 ASU bus GPA and 56 earned hrs; completed MGT 302 or IBS 300 or ECN 306; completed MGT 300 or 303 or 310 or 320 or 380 with a C or better
MGT	460	Strategic Leadership	Systems theory of organizations, strategy formulation and administration in organizations, creating organizational cohesiveness, and leading change within organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: W.P. Carey Management BS student; have completed FIN 300, MKT 300 and ENG 302 or 301 or be currently enrolled; have completed MGT 410 and MGT 420 with a grade of C or greater or be currently enrolled
MGT	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	5.	L	Pre-requisites: Department approval; application process.
MGT	465	Collaborative Design Development II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	5.	L	Pre-requisites: Department approval; application process
MGT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey Management BS student.
MGT	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6		Pre-requisites: Must be an Honors student
MGT	493	Honors Thesis		N	THE	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
MGT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W.P. Carey BS or BA student OR non-business with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and min 56 earned hrs; MGT 300 or 302 or 303 or 310 or IBS 300 with C or better
MGT	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-6		
MGT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-7		Pre-requisites: W. P. Carey BS or BA student OR non Business students with a minimum GPA of 2.50 and either at least 56 earned hours or non degree students OR Graduate students
MGT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		Pre-requisites: W. P. Carey BS or BA student OR non Business students with a minimum GPA of 2.50 and either at least 56 earned hours or non degree students OR Graduate students
MGT	502	Organization Theory and Behavior	Understands human side of organizations through management theories and applications. Develops knowledge and skills for successful management of self and others.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: Specific W.P. Carey students
MGT	503	Human Resources Management: Principles and Skills	Emphasizes strategies for managing human resources and implementing HRM programs and policies that make people more productive and satisfied.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	504	Ethics and Corporate Social Responsibility	Reviews practical and conceptual tools to deal with the ethical implications of a variety of types of managerial decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	505	Leadership and the Knowledge Economy	Examines organizational processes that seek synergies between the information processing capacity of IT and the creative capacity of humans.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	512	Professional Relationship Management	Explores theories, methods, skills, and practices central to development of professional-level expertise in the management of relationships in the workplace.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in either the Accountancy & Applied Leadership graduate plan or the Applied Leadership & Management graduate plan.
MGT	513	Leadership Skills and Principles	In-depth study of traditional and emerging ways to demonstrate leadership effectively with emphasis on leadership development and coaching activities.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in either the Accountancy & Applied Leadership graduate plan or the Applied Leadership & Management graduate plan
MGT	514	Entrepreneurial Leaders	Applies leadership concepts to entrepreneurial processes. Considers independent entrepreneurs, as well as intrapreneurs within organizations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Applied Leadership & Management graduate plan; MGT 513 with C or better
MGT	515	The Neuroscience of Leadership	Provides a rigorous understanding of how the human brain supports leaders in thought, perception, decision-making, affect, action, and social processes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Mgt & Leadership graduate student in Acct & Applied Leadership or Applied Leadership & Mgt. Applied Leadership & Mgt students must have completed MGT 502, 503, 504, and 505 with C or better
MGT	522	Human Resource Activity and the Management of Diversity	Applies general and human resource management principles to work effectively with a diverse spectrum of people.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
MGT	523	Performance Management	Addresses effective management of people in organizations. Considers evaluating and improving performance using concepts and application.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	559	International Management	Studies international and cross-cultural influences on management processes and development of global leadership capabilities for experienced management professionals.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-3		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student

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MGT	561	Advanced Integrated Project	Capstone project of the high-technology ASU MBA. Student teams develop business plans for new technology-based products.	Y	FLD	Y	GNA	W.P. Carey School of Business	Department of Management	1-6		Pre-requisites: MBA degree student
MGT	570	Management Consulting	Develops understanding of how internal and external consultants add value.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		
MGT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	Department of Management	0-12		
MGT	588	Strategic Leadership	Explores the general manager as organizational leader. Focuses on competitive advantage and how each functional area contributes to it.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	589	Strategic Management	Formulation of strategy and policy in the organization, emphasizing the integration of decisions in the functional areas.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: Graduate W.P. Carey students or Public Administration MPA student
MGT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W. P. Carey MBA Full Time student.
MGT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Management	1.		
MGT	596	Global Strategic Management Project	Experientially examines the interaction among the strategic forces within an organization with the competitive forces in the global environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in Applied Leadership & Management; MGT 502, 503, 504, and 505 with C or better
MGT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
MGT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Management	1-12		
MGT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
MGT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	SEM	Y	Z1	W.P. Carey School of Business	Department of Management	1-15		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MGT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	W.P. Carey School of Business	Department of Management	1.		
MGT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	W.P. Carey School of Business	Department of Management	1-15		
MGT	300	Organization and Management Leadership	Analyzes strategic, behavioral, and human resource management perspectives, including principles of strategic management and leadership of human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BS student, Global Management student with Professional or Conditional status or a Food and Nutrition Management student
MGT	460	Strategic Leadership	Systems theory of organizations, strategy formulation and administration in organizations, creating organizational cohesiveness, and leading change within organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	L	Pre-requisites: W. P. Carey BS or BA student, or Global Management student with Professional or Conditional status AND have earned more than 75 hours/credits
MGT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-12		
MGT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
MGT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-3		
MHI	500	Research Methods	Course on research methods in a specific discipline.	Y	THE	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	538	Innovation and the Individual	Introduces the role of the innovator, including the essential behaviors of risk taking, managing workload, and addressing the challenges of innovation.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Masters of Healthcare Innovation
MHI	540	Understanding and Applying Principles of Evidence-Based Practice	Understanding how application of evidence-based practice principles assists healthcare professionals to provide the best care. May be repeated once for credit.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Masters of Healthcare Innovation
MHI	542	Systems Thinking in a Complex Environment	Studies basic and advanced systems principles as they relate to the American healthcare system. Specific emphasis is given to system assessment, designing system interventions, and managing system dysfunction from the innovator's perspective.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	544	Innovations in Information Systems	Allows students to develop their own learning goals around the innovative use of technology to: critically appraise and evaluate the use of technology to access information; develop skills in maximizing the use of technology to advance practice, thinking, and decision making; advance the integration of human potential and available technology; and develop strategies to address the competing priorities of technology, confidentiality, safety, high reliability principles, full disclosure to the public, and risk management. May be repeated once for credit.	N	SEM	Y	P/F	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	546	Communication for Innovation	Overview of traditional, contemporary and innovative communication strategies in the 21st century.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	548	Advanced Principles and Concepts of Innovation	Explores and analyzes the innovation in complex systems, focusing on developing specific skills for successful innovations.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	550	Healthcare Policy and Innovation	Introduces the political, organizational, and economic dimensions of healthcare policy, emphasizing strategies for innovative policy and practice.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	552	Financing for Innovation	Provides an overview of healthcare economics; develops budgeting, planning, and management skills; and culminates in financial analysis skills necessary to facilitate management decision making or writing business plans or grant proposals.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	554	Outcomes Evaluation	Outcomes measurement, management, and evaluation for healthcare practitioners and/or leaders. May be repeated once for credit.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	561	Capstone Innovation Project I	Capstone project to learn the active skills of healthcare innovation using an adapted IDEO model.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	562	Capstone Innovation Project II	Introduces the process of conceptualizing an innovation and building a plan or proposal to move forward with the innovation in either an entrepreneurial or intrapreneurial context.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
MHI	563	Capstone Innovation Project III	Finalizes the process of conceptualizing an innovation and building a plan or proposal to move forward with the innovation in either an entrepreneurial or intrapreneurial context.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
MHI	679	Biostatistics: Principles of Statistical Inference.	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
MHI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHL	140	Music as Culture	Introduces a range of practical and intellectual challenges presented by encounters with various kinds of music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must be a freshman
MHL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MHL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	201	Mac Literacy for Musicians	Instruction in basic Macintosh computer literacy, including generic applications and music-specific programs with hands-on experience. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	CS	
MHL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MHL	341	Music History	Western music from the Greeks to the present day. Need not be taken in sequence with MHL 342.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music student; MHL 140 with a C or better or currently enrolled; MTC 221 with a C or better or currently enrolled
MHL	342	Music History	See MHL 341.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MHL	344	Music in World Cultures	Examines the relations among music, dance, theatre, religion, and social status in Asia, Africa, Oceania, Europe, and the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & G	
MHL	344	Music in World Cultures	Examines the relations among music, dance, theatre, religion, and social status in Asia, Africa, Oceania, Europe, and the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & G	
MHL	352	The Evolution of Jazz	Origin, development, and styles of jazz music and its exponents.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	H	Pre-requisites: Music student; MTC 223 with C or better
MHL	363	Survey of Russian Music	Examines music and musical life in Russia, the Soviet Union, and the post-Soviet C.I.S. from the Middle Ages to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	Pre-requisites: Music student; MHL 342 with C or better
MHL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	438	Topics in 18th-Century Music	Selected topics exploring the musical styles of the 18th century and their cultural contexts.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	H	Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 223 with C or better
MHL	439	Topics in 19th-Century Music	Selected topics exploring the musical styles of the 19th century and their cultural contexts.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	L & H	Pre-requisites: Must be a Music student; must have completed MHL341AND MHL342 AND MTC223 with a C or greater or be currently enrolled
MHL	440	Music Since 1900	Examines stylistic trends, major composers and their works, and cultural contexts in music since 1900.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 223 with a C or greater
MHL	456	History of Opera	Development of opera from its creation ca. 1600 to present. Emphasis placed on major stylistic developments and representative works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 222 with C or better
MHL	466	North American Indian Music	Various styles of Indian music in the United States, Canada, and Mexico. Open to Music majors and nonmajors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	(L or HU) & C	
MHL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	492	Honors Directed Study		N	THE	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MHL	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MHL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 222 with C or better
MHL	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MHL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MHL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MHL	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	532	Music Bibliography	Major historical and analytical writings; systematic and historical collections of music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Graduate Music student
MHL	535	Medieval Music	Music of Europe in the Middle Ages, Gregorian chant, religious and secular monophony and polyphony to 1400.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Graduate Music student
MHL	536	Music of the Renaissance	Music in Europe, with emphasis on stylistic concepts and changes, ca. 1400-1580.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Graduate Music student
MHL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Graduate Music student
MHL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	647	Topics in American Music	Selected topics in the history of music. Composers working in the Americas with emphasis upon music since 1900.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	657	Topics in Symphonic Literature	Examines the evolution of the symphony and symphonic poem from the early classic era through the 19th century, with emphasis on the analysis of selected works.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	664	History of Music Instruments	Surveys the history and development of music instruments in traditional, folk, and art cultures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	668	Introduction to Ethnomusicology	Introduces the theory and methodology of the discipline, including bibliography, fieldwork, transcription, analysis, and organology.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	670	Area Studies in Ethnomusicology	Study of the music of a particular culture, country, or area (e.g., music of Mexico, Latin America, China, Africa).	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	675	History of Choral Music	Major choral works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		

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MHL	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MHL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MHL	201	Mac Literacy for Musicians	Instruction in basic Macintosh computer literacy, including generic applications and music-specific programs with hands-on experience. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
MIC	205	Microbiology	Basic course for students without credit in BIO 188, emphasizing general principles; role of microorganisms in health, ecology, and applied fields. May not be used for Microbiology major credit unless a diagnostic test is passed. Both MIC 205 and 206 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SG	
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SG	
MIC	220	Biology of Microorganisms	Basic course for students with credit in BIO 188. Detailed study of microbial cells, their structure, genetics, physiology, and taxonomy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MIC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisite: Freshman standing; Maximum 25 hours
MIC	205	Microbiology	Basic course for students without credit in BIO 188, emphasizing general principles; role of microorganisms in health, ecology, and applied fields. May not be used for Microbiology major credit unless a diagnostic test is passed. Both MIC 205 and 206 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SG	
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	SG	
MIC	220	Biology of Microorganisms	Basic course for students with credit in BIO 188. Detailed study of microbial cells, their structure, genetics, physiology, and taxonomy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	298	Honors Directed Study		N	RSC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
MIC	302	Advanced Bacteriology Laboratory	Advanced lab techniques in bacterial growth, physiology, genetics, and microscopy. Required of Microbiology majors. Both MIC 302 and 401 must be taken to secure L General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisite: Must have completed MIC 206 with a grade of C or greater or be currently enrolled; Must have completed MIC 205 or 220 with a grade of C or greater or be currently enrolled
MIC	314	HIV/AIDS: Science, Behavior, and Society	Overview of the basic biological, behavioral, and psychosocial aspects of HIV disease and AIDS.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	360	Bacterial Physiology	Mechanisms and control of cell metabolism, structures, and functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	380	Medical Parasitology	Parasitic diseases of humans, including life cycle events and clinical manifestations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	381	Pathogenic Microbes	Host-microbial interactions in infectious disease, with emphasis on pathogenesis, host defenses, and molecular mechanisms of microbial virulence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	401	Research Paper	Paper of 15 or more pages based on library or lab research in collaboration with a faculty member. Required of all Microbiology majors. Both MIC 302 and 401 must be taken to secure L General Studies credit.	N	RSC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	

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MIC	402	Service Learning	K-12 tutoring internship; learning activities employed were originally developed as part of the Bio Reach Program. Requires weekly reflective writing. Fee.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	
MIC	420	Immunology: Molecular and Cellular Foundations	Molecular and cellular foundations of immunology. Antibody/antigen interactions, cellular response, cytokines, immunogenetics, immunoregulation, autoimmunity, psychoneuroimmunology research/medical perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3-4		
MIC	421	Experimental Immunology	Introduces the basic techniques, methods, and assays used in immunology. fee	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
MIC	425	Advanced Immunology	Surveys recent advances in immunology, including lymphocyte membranes, lymphokines/biochemistry, molecular genetics, theoretical immunology, immunoregulation, neuroimmunology, and immunologic diseases.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	427	Immunoneuropsychology: Research Foundation	Mind and the immune system's mutual influence (including neuroimmunologic diseases), with an emphasis on the molecular and cellular mechanisms involved.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
MIC	428	Immunophilosophy	Integrates immunology and philosophy, including psychoneuroimmunology and the mind-body problem, and immunologic/psychologic perspectives on self and self-identity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	441	Bacterial Genetics	Surveys genetic exchange and regulatory processes in bacteria and their viruses. Bacteria and viruses as tools in genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	442	Bacterial Genetics Laboratory	Techniques of mutagenesis, mapping, and strain and genetic library construction.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
MIC	445	Techniques in Molecular Biology/Genetics	Molecular genetic principles: plasmid construction, purification, and characterization; PCR; mutageneses; hybridization and sequence analysis; protein quantitation; immunologic detection, and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
MIC	446	Techniques in Molecular Biology/Genetics Lab	Molecular genetic techniques; plasmid construction, purification, and characterization; PCR; mutageneses; hybridization and sequence analysis; protein quantitation; immunologic detection, and electrophoresis.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
MIC	461	Geomicrobiology	Past and present interactions among microbial life, geological materials, and biogeochemical cycles involving carbon, sulfur, phosphate, nitrogen, and metals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	470	Bacterial Diversity and Systematics	Biology, classification, and enrichment culture of the nonpathogenic bacteria. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
MIC	475	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	485	General Virology	Fundamental principles of viruses, their molecular biology, replication, genetics, and pathogenesis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
MIC	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
MIC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	495	Undergraduate Research	Supervised research in microbiology. May be repeated for credit.	N	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
MIC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
MIC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
MIC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
MIC	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	527	Neuroimmunology	Studies the mind's influence on immunity and the immune system's influence on the mind, neuroimmunologic diseases, and the neuroimmunological circuitry involved.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	585	Molecular Virology	Selected topics concerning molecular aspects of eukaryotic virus replication and pathogenesis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		

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MIC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MIC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
MIC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MIC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
MIC	205	Microbiology	Basic course for students without credit in BIO 188, emphasizing general principles; role of microorganisms in health, ecology, and applied fields. May not be used for Microbiology major credit unless a diagnostic test is passed. Both MIC 205 and 206 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SG	
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SG	
MIC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MIS	101	Introduction to the Military I	Overview of mission, organization, and structure of the Army and its role in national defense; discussion of current military issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	102	Introduction to the Military II	Introduces problem-solving methods, critical thinking, decision making, and group cohesion as applied in a military environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-3		Pre-requisite: Freshman standing; Maximum 25 hours
MIS	201	Introduction to Leadership Dynamics I	Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	202	Introduction to Leadership Dynamics II	Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	205	Leader's Training Course	6-week training program emphasizing practical hands-on skills and leadership development. Taken in lieu of MIS 101, 102, 201, 202. Conducted at Fort Knox, Kentucky.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	4.		

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MIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	301	Advanced Military Science I	Theory and dynamics of the individual soldier and military units in offensive combat operations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	L	
MIS	302	Advanced Military Science II	Theory and dynamics of military units in defensive combat operations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	L	
MIS	303	National Advanced Leadership Camp	6-week training program emphasizing leadership development and advanced military skills, including tactics, land navigation, and physical training. Conducted at Fort Lewis, Washington.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	4.		
MIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	401	Advanced Military Science III	Military legal system; preparation and conduct of military training; leadership development; ethics and professionalism of the military officer. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	402	Advanced Military Science IV	Military correspondence; career planning and personal affairs in service; conduct of training; leadership development; ethics and professionalism of the military officer. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	410	American Defense Policy I	Evolution, organization, and execution of U.S. national security policy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	SB & G & H	
MIS	412	American Defense Policy II	Contemporary problems and analytical issues in the formation and implementation of U.S. national security.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	SB & G & H	
MIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Military Science	1-12		
MIS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Military Science	1-6	L	Pre-requisites: Must be an Honors student
MIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-7		
MIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Military Science	1-3		
MIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Military Science	0.		
MKT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-3		
MKT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		
MKT	300	Marketing and Business Performance	The dynamic role of marketing within society and organizations. Emphasizes frameworks and analytical tools that ensure customer focus and drive organizational performance.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: Non-Marketing W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA and 2.5 ASU business GPA; ECN 211 or ECN 212 with a grade of C or better or be currently enrolled.
MKT	301	Fundamentals of Marketing	Examines the role and process of marketing within the society, economy, and business organization.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Prerequisite(s): School of Global Management and Leadership student with Professional OR Conditional status
MKT	302	Applied Marketing Management and Leadership	Market planning, execution, and assessment. Emphasizes decision and communication skills related to market opportunity analyses and marketing program development as a core business function.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.	L	Pre-requisite: W.P. Carey Marketing BS student; ACC 241 and ECN 221 with C or better
MKT	303	Honors Marketing Theory and Practice	Covers basic applications of marketing concepts to problems that are common to marketing managers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Must be an Honors student; Must have ACC 241 and ECN 221 with a grade of C or better.
MKT	352	Marketing Research	Knowledge and skills to make intelligent decisions in the design, evaluation and application of marketing research and market data. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.	L	Pre-requisite: W. P. Carey Marketing student; MKT 302 or MKT 303 with C or better
MKT	360	Seminar in International Business	Broad exposure to global business and cross-cultural differences. Emphasizes the European Union history and future and the impact of financial issues on marketing practices. Lecture, discussion, group work.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and min 56 earned hours; SCM 300 with a grade of C or greater
MKT	365	Advertising Management	Advertising as a communications tool in marketing and business. Consideration of market segmentation and positioning, creative strategy, media management, and metrics of effectiveness.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student or non-business student with a minimum 2.5 ASU cum GPA, 2.5 ASU business GPA and 56 earned hours; must have completed MKT 300 or MKT 302 or MKT 303 with a grade of C or better.
MKT	390	Essentials of Marketing	Focuses on the nature and processes of marketing with an emphasis on practical application. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student

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MKT	391	Essentials of Selling	Focuses on the selling process and its practical applications within consumer and business markets. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	393	Essentials of Applied International Marketing	Travel to companies outside the United States to benchmark and assess cross-cultural marketing practices. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: Non-Marketing student; Minimum ASU cumulative GPA of 2.00; Minimum 56 hours OR be a Non-degree seeking student OR be a Graduate student
MKT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: Non marketing students; Must have a minimum cumulative GPA of 2.00; Must have at least 56 total earned hours or be a non-degree seeking or Graduate student
MKT	395	Essentials of Advertising and Marketing Communication	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	402	Consumer Behavior	Applies behavioral concepts in the analysis of consumer behavior and the use of behavioral analysis in marketing strategy formulation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; must have completed MKT 352 with a grade of C or better.
MKT	410	Sales and Sales Management	Constructive investigation of selling processes, their application in business and consumer contexts, and management of the sales function.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with minimum 2.5 ASU cumulative GPA, minimum 2.5 ASU business GPA and 56 earned hours; must have completed MKT 302 or MKT 303 with a grade of C or better.
MKT	410-W	Consumer Behavior	Applies social, cultural, and behavioral concepts for analyzing consumer behavior, with implications for marketing strategy and marketing communication strategy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		Pre-requisites: Must be a Global Business/Marketing student with Professional or Conditional status AND completion of MKT 300 or 301 with a grade of C or better.
MKT	413	Marketing Research Concepts and Practice	Research techniques for collecting, analyzing, and interpreting marketing information. Includes design and completion of a client-sponsored, industry-based research project.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		
MKT	414	Global Strategic Marketing	Examines marketing and marketing communication strategy development, and evaluation in the context of global markets and organizational objectives.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		Pre-requisite: Global Mgt Marketing or Int'l Studies student with conditional or professional status; MKT 300, MKT 301 or GLB 301 with C or better
MKT	415	Promotion Management	Market positioning and integration of promotional activities and marketing communications of the firm, including advertising, personal selling, public relations, and sales promotion.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cumulative GPA, 2.5 ASU business GPA and 56 earned hours; must have completed MKT 302 or MKT 303 with a grade of C or better.
MKT	420	Retail Management	The role of marketing in retailing and retail performance. Challenges and processes of retail management across various institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; must have completed MKT 302 or MKT 303 with a grade of C or better.
MKT	425	Global Marketing Management	Analyzes marketing strategies and practices developed by firms to compete in global markets and adapt to changing international environments.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 with C or better
MKT	442	Services Marketing Strategy	Concepts, skills, and strategies for addressing the imperative marketing challenges and opportunities involving service.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402
MKT	452	Business-to-Business Marketing Strategy	Concepts, skills, and strategies for performing competitively in the business market where organizations rather than households are the customers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402
MKT	462	Competitive Marketing Strategy	Strategy formulation and decision making by the marketing executive. Integrates marketing programs and considers competitive marketing issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402.
MKT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W. P. Carey Marketing BS student; MKT 302 or MKT 303 with B or better
MKT	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Marketing	1-6		
MKT	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Marketing	1-6	L	Pre-requisites: Must be an Honors student
MKT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA; MKT 302 or MKT 303 with a grade of C or better.
MKT	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-6		
MKT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-7		Pre-requisites: Business students with professional status or non-business students with a minimum cumulative GPA of 2.50 and 56 earned hours

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MKT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-3		Pre-requisites: Business students with professional status or non-business students with a minimum cumulative GPA of 2.50 and 56 earned hours
MKT	502	Marketing Management	Managing the marketing function; market and environmental analysis; marketing planning, strategy, and control concepts. Development and management of marketing programs.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
MKT	510	Understanding Buyer Behavior	Examines behavioral science concepts and theories from the perspective of a marketing researcher who needs knowledge of customer behavior to aid marketing managers as they develop, evaluate, and implement effective marketing strategies for new and existing products.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	513	Marketing Research for Product Development I	Covers qualitative and interpretive methodologies designed to understand and capture the voice of customers with the aim of infusing research results into the new product development process. Covers methods such as ethnographic and observational research, visual documentation, focus groups, in-depth interviews, and artifact analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	514	Marketing Research for Product Development II	Provides theoretical and practical knowledge regarding the market assessment and survey research methods that underlie product development in organizations. Focuses on research techniques particularly applicable to the opportunity identification and concept/project evaluation stages of the new product development process.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better or currently enrolled
MKT	515	Marketing Research for Product Development III	Emphasizes theory and tools useful for refining product development decisions involving narrow product development issues. Covers research techniques that are well suited for fine-tuning new product/service decisions associated with imminent market launch. Covers experimental designs, customer choice modeling, and lab and field test marketing along with appropriate data collection, measurement, and data analysis techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better, or currently enrolled
MKT	524	Services Marketing	Strategies for marketing services emphasizing the distinctive challenges and approaches that make marketing of services different from marketing manufactured goods.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey Graduate students; Must have completed HSA 502 or MKT 502 with a grade of C or greater or be currently enrolled
MKT	530	Creativity and Innovation	Multidisciplinary approaches to theories and practices of inspiring and managing innovation and change for sustainable competitive advantage. Focuses on both the student's individual creativity and the planning and implementation of innovations, technologies, processes, or systems that pose significant uncertainty. Places special attention on the processes surrounding understanding the consumer, ideation and implementation. Inclusive in this are methods such as environmental scanning, scenario planning, contextual research, storytelling, concept testing and prototyping. Also includes the many aspects of the organization's structure and culture regarding innovation and creativity.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	550	Innovative Brand Management and Marketing Communication	Focuses on innovative approaches to brand development and management throughout the product life cycle. Emphasizes marketing communications in a fundamental aspect of this process. The demand for innovative practices is especially evident in many aspects, including new media, social media, technology, open sourcing, and customer co-creation of brands. Addresses the role of customer understanding to market success. Brand management and marketing communication are dominant innovation decision areas within marketing.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	560	Customer Relationship Management	Covers approaches for customer relationship management (CRM) including assessing customer value, prospect/customer identification and targeting, assessment and development of customer life-time value, and customer attrition and retention. Covers CRM issues, techniques, and terminology associated with database marketing and data mining for analytical opportunity identification. Students must complete a project using CRM software in order to demonstrate their command of CRM issues, both conceptually and practically.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better, or currently enrolled
MKT	563	Marketing Strategy	Planning and control concepts and methods for developing and evaluating strategic policy from a marketing perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey Graduate student; MKT 502 with C or better

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MKT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W. P. Carey MBA Full Time student.
MKT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: Global Management Graduate student; MKT 502 with C or better
MKT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
MKT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
MKT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-15		
MKT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Marketing	1-15		

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MKT	300	Marketing and Business Performance	The dynamic role of marketing within society and organizations. Emphasizes frameworks and analytical tools that ensure customer focus and drive organizational performance.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
MKT	410	Sales and Sales Management	Constructive investigation of selling processes, their application in business and consumer contexts, and management of the sales function.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
MKT	420	Retail Management	The role of marketing in retailing and retail performance. Challenges and processes of retail management across various institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
MLS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
MLS	501	Writing about Social Issues: Culture, Gender, Society, and Well-Being in the Southwest	Reading and discussion of nonfiction writing on social issues that integrate cultural, gender, and societal issues that affect the well-being of urban communities with special attention to the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	502	Religion, Culture, and Health: Where Cultures Intersect	Focuses on how cultural and religious notions may come into conflict around issues of health. Contrasts two societies, not necessarily contemporary, from different continents.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	503	Ethics, Science, and Culture	Introduces ethics related to the practice of art, science, and medical practice in modern and premodern society.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	504	Film Analysis	Introduce formal and cultural issues important to understanding movies.	N	DIS	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
MSC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MSC	345	Desert Gold Chorale	Performs folk and standard choral repertoire, including Bach, Mozart, Schubert, and Handel, as well as contemporary pop, jazz and musical theatre, including George Gershwin, Harold Arlen, Richard Rodgers, and Lennon and McCartney.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MSC	436	American Film Musicals	A cultural history of American film musicals.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	
MSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MSE	100	Introduction of Materials Engineering	Engineering design process, concepts about materials, and the materials engineering profession, including teaming, computer models, communication, and societal impact. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	2.		Pre-requisites: Undergraduate Engineering or University College student
MSE	111	Challenges in Materials Engineering	Introduces current issues and concepts of materials engineering, relationship between materials properties, application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	1.		
MSE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-3		
MSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		
MSE	208	Patterns in Nature	Project-oriented science course with computer training to develop critical thinking and technical skills for student-oriented K-12 science lessons. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	4.	SQ	

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MSE	211	Introduction to Mechanics of Materials	Topics include stress, strain, elasticity, axial loading, torsion, bending, yield criteria, fracture, general energy methods and Castigliano's Theorem.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: PHY 121 completed with D or currently enrolled; PHY 122 completed with D or currently enrolled; MSE 250 or ECE 350 completed with a D or currently enrolled in MSE 250
MSE	215	Materials Synthesis	Introduces contemporary techniques for synthesizing both traditional and novel materials and the corresponding correlation to synthesized materials properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites:MSE 250 completed with a D or better or currently enrolled or co-enrolled in MSE 250
MSE	250	Structure and Properties of Materials	Basic concepts of material structure and its relation to properties. Application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites:CHM 114 (or CHM 116) with a D or better
MSE	308	Sensing the World	Project-oriented science course develops critical thinking and technical skill using Internet modules on the five senses.	N	LEL	N	OPT	Ira A. Fulton Engineering	Materials Program	4.	SQ	Pre-requisites: Engineering BS/BSE students; MSE 208 with D or better
MSE	315	Mathematical and Computer Methods in Materials	Mathematical, computational, and statistical methods and computer programming used to model materials science phenomena and materials engineering applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE students OR Non-Engineering students with a minimum GPA of 3.00; MAT 274 or MAT 275 with D or better or currently enrolled; MSE 250 or ECE 350 with D or better or currently enrolled in MSE 250
MSE	330	Thermodynamics of Materials	Principles of statistical mechanics, statistical thermodynamics of single crystals, solutions, phase equilibrium, free energy of reactions, free electron theory, and thermodynamics of defects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.00; MSE 250 or ECE 350 completed with D or better or currently enrolled in MSE 250
MSE	335	Materials Kinetics and Processing	Introduces kinetics in processing of materials as illustrated through real-world materials processing examples.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: MSE 330 completed with D or better or currently enrolled; Engineering BS/BSE students
MSE	355	Materials Structure and Microstructure	Elements of the structure of metals and alloys, measurement of mechanical properties, and optical metallography. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with D or better or currently enrolled in MSE 250 OR Graduate Engineering student
MSE	356	Materials Structure and Microstructure Lab	Lab experiments correlating atomic structure, defects and microstructure of processed metals, ceramics polymers and composites to their mechanical and thermal properties. fee	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with D or better or currently enrolled in MSE 250; Co-requisite: MSE 355
MSE	358	Introduction to Electronic, Magnetic, and Optical Properties	Introduces electrical, optical, and magnetic properties of solids and microstructure effects as examined through materials-based examples.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: MSE 315 completed with D or better or currently enrolled; Engineering BS/BSE students
MSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		
MSE	420	Physical Metallurgy	Crystal structure and defects. Phase diagrams, metallography, solidification and casting, deformation, and annealing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with D or better or currently enrolled OR Graduate Engineering student
MSE	421	Physical Metallurgy Laboratory	Focuses on analysis of microstructure of metals and alloys and includes correlation with mechanical properties to some extent. fee	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre-requisites: Engineering BS/BSE student; Pre or Co-requisite: MSE 420 with D or better if completed
MSE	431	Corrosion and Corrosion Control	Introduces corrosion mechanisms and methods of preventing corrosion. Topics include: electrochemistry, polarization, corrosion rates, oxidation, coatings, and cathodic protection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with D or better or currently enrolled in MSE 250
MSE	440	Mechanical Properties of Solids	Effects of environmental and microstructural variables of mechanical properties, including plastic deformation, fatigue, creep, brittle fracture, and internal friction. Credit is allowed for only MSE 440 or 516.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 355 completed with a D or better or currently enrolled in MSE 355
MSE	441	Analysis of Material Failures	Identifies types of failures. Analytical techniques. Fractography, SEM, nondestructive inspection, and metallography. Mechanical and electronic components. Credit is allowed for only MSE 441 or 512.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with D or better or currently enrolled in MSE 250
MSE	450	Introduction to Materials Characterization	Introduces materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with D or better or currently enrolled in MSE 250 OR Chemical Engineering student; CHE 231 or CHE 331 completed with D or better or currently enrolled in CHE 231
MSE	451	Introduction to Materials Characterization Lab	Lab for materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES. Fee.	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre-requisites: Engineering BS/BSE student; Co-requisite: MSE 450
MSE	470	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better or currently enrolled; CEE 213, MAE 213 or MSE 211 with D or better or currently enrolled; MAT 343, MAT 242 or MAT 342 with D or better or currently enrolled
MSE	471	Introduction to Ceramics	Principles of structure and property relations in ceramic materials. Processing techniques. Applications in mechanical, electronic, and superconducting systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with a D or better or currently enrolled in MSE 250
MSE	475	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging. Credit is allowed for only MSE 475 or 518.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with D or better; May not enroll in MSE 475 if received credit for MSE 518
MSE	476	Growth and Processing of Semiconductors	Briefly introduces semiconducting materials and emphasizes the characteristics of defects in semiconductors and their influence on electronic properties. Covers principles of growth of bulk crystals, epitaxial growth, oxidation, diffusion, ion implantation, and metallization. Discusses the introduction of defects during growth and processing of semiconductors and their influence on device behavior. Credit is allowed for only MSE 476 or 519.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better. May not enroll in MSE 476, if received credit for MSE 519

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MSE	482	Materials Engineering Design	Principles of the design process. Feasibility and optimization. Manufacturing processes, materials selection, failure analysis, and economics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	L	Pre-requisites: Engineering BS/BSE student; MSE 420 with a D or better or currently enrolled; Pre- or Co-requisites: MSE 470 and MSE 471 (with D or better if completed) OR Graduate Engineering students
MSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	490	Capstone Design Project	For small groups in fundamental or applied aspects of engineering materials; emphasizes experimental problems and design. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	L	Pre-requisite: Engineering BS/BSE student; MSE 482
MSE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Materials Program	1-6		Pre-requisites: Honors students only
MSE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Materials Program	1-6	L	Pre-requisites: Honors students only
MSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		Pre-requisite: Engineering BS/BSE student
MSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-7		Pre-requisite: Engineering BS/BSE or Engineering Graduate student
MSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Ira A. Fulton Engineering	Materials Program	1-3		
MSE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	510	Introduction to Materials Characterization	Introduces materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES. Credit is allowed only for MSE 510 or 450.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	511	Corrosion and Corrosion Control	Introduces corrosion mechanisms and methods of preventing corrosion. Topics include: electrochemistry, polarization, corrosion rates, oxidation, coatings, and cathodic protection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	512	Analysis of Material Failures	Identifies types of failures. Analytical techniques. Fractography, SEM, nondestructive inspection, and metallography. Mechanical and electronic components. Credit is allowed for only MSE 512 or 441.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	513	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	514	Physical Metallurgy	Crystal structure and defects. Phase diagrams, metallography, solidification and casting, and deformation and annealing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	515	Thermodynamics of Materials	Principles of statistical mechanics, statistical thermodynamics of single crystals, solutions, phase equilibrium, free energy of reactions, free electron theory, and thermodynamics of defects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	516	Mechanical Properties of Solids	Effects of environmental and microstructural variables of mechanical properties, including plastic deformation, fatigue, creep, brittle fracture, and internal friction. Credit is allowed for only MSE 516 or 440.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	517	Introduction to Ceramics	Principles of structure, property relations in ceramic materials. Processing techniques. Applications in mechanical, electronic, and superconducting systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in CHE 518, EEE 518, or MSE 475 you may not enroll in MSE 518
MSE	519	Growth and Processing of Semiconductors	Briefly introduces semiconducting materials and emphasizes the characteristics of defects in semiconductors and their influence on electronic properties. Covers principles of growth of bulk crystals, epitaxial growth, oxidation, diffusion, ion implantation, and metallization. Discusses the introduction of defects during growth and processing of semiconductors and their influence on device behavior. Credit is allowed for only MSE 519 or 476.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	520	Theory of Crystalline Solids	Anisotropic properties of crystals; tensor treatment of elastic, magnetic, electric and thermal properties, and crystallography of Martensitic transformations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	521	Defects in Crystalline Solids	Introduces the geometry, interaction, and equilibrium between dislocations and point defects. Discusses relations between defects and properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MSE	525	Physics of Materials	Teaches fundamental concepts of applied physics as related to the solid state. Wave-particle duality and the Schrodinger equation; chemical cohesion, bonds and energy bands in metals and insulators; optical, electronic, and magnetic properties. Requires a basic knowledge of differential equations; linear algebra; and electrical, magnetic, and optical properties of materials. A course in modern physics is highly recommended, but not required.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	526	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 511 or 481.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	527	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	540	Fracture, Fatigue, and Creep	Relationship between microstructure and fracture; fatigue and creep properties of materials. Environmental effects and recent developments. Current theories and experimental results.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	550	Advanced Materials Characterization	Analytical instrumentation for characterization of materials; SEM, SIMS, Auger, analytical TEM, and other advanced research techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Credit is allowed for only MSE, NAN, PHY or SEM 552
MSE	553	Electron Microscopy Laboratory I	Lab support for MSE 552.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent-beam diffraction, and electron holography. Novel developments and applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	555	Electron Microscopy Laboratory II	Lab support for MSE 554.	N	LAB	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	561	Phase Transformations, Kinetics, and Diffusion in Solids	Hetero/homogeneous diffusion-controlled transformations, order-disorder transformations, and shear martensitic athermal transformations in solids. Courses in advanced thermodynamics and structure and properties of materials are strongly recommended in preparation for this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	562	Ion Implantation	Includes defect production and annealing. Generalized treatment, including ion implantation, neutron irradiation damage, and the interaction of other incident beams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	565	Structural Materials in Nuclear Power Systems	Provides an overview of reactor systems and discusses the structural materials used in reactor components (e.g., fuel/core, wall/blanket, heat exchanger, and steam turbine materials). Discusses design considerations and materials degradation processes that occur in service. Emphasizes the effect of radiation damage on materials properties. Reviews reactor systems, including fission- (e.g., PWR, LWR, BWR, LMFBR) and fusion-based reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	570	Polymer Structure and Properties	Relationships between structure and properties of synthetic polymers, including glass transition, molecular relaxations, crystalline state viscoelasticity, morphological characterization, and processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	571	Ceramics	Includes ceramic processing, casting, molding, firing, sintering, crystal defects, and mechanical, electronic, and physical properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	573	Magnetic Materials	Emphasizes ferromagnetic and ferrimagnetic phenomena. Domains, magnetic anisotropy, and magnetstriction. Study of commercial magnetic materials.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		Pre-requisite: Materials & Science Engineering Masters student
MSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Materials Program	1.		
MSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		Pre-requisite: Graduate Engineering student OR Science & Engr of Materials student
MSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Materials Program	1-12		Pre-requisite: Materials & Science Engineering Masters student
MSE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-15		Pre-requisite: Materials Science & Engineering PhD student
MSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Materials Program	1.		
MSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Materials Program	1-15		Pre-requisite: Materials Science & Engineering PhD student
MTC	123	Beginning Composition	Intended for freshmen and sophomores in the composition concentration. Introduces composing. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Must be a music student in the music composition (FAMUSTCBM) plan
MTC	125	Basic Music Theory	Notation, scales, keys, modes, intervals, chords, basic part writing and composition. Development of related aural skills through sightsinging and dictation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student
MTC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MTC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	221	Music Theory: 18th Century	Styles, techniques, and idioms of 18th-century music; emphasis on analysis, composition (part writing), and related aural skills, with applications for performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 125 with C or better
MTC	222	Music Theory: 19th Century	Styles, techniques, and idioms of 19th-century music; emphasis on analysis, composition (part writing), and related aural skills, with applications for performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 221 with C or better

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MTC	223	Music Theory: 20th Century	Styles, techniques, and idioms of 20th-century music; emphasizes innovative treatments of musical elements, analysis, and composition; related aural skills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 222 with C or better
MTC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MTC	315	Modern Arranging	Techniques in arranging for the contemporary jazz, radio, television, and studio orchestra.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites:Must be a Music student; MTC 223 with C or better
MTC	316	Modern Arranging	Continuation of MTC 315.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Prerequisite: Bachelor of Music student; MTC 315 with C or better
MTC	320	Modal Counterpoint	Counterpoint based on 16th-century vocal polyphonic style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites:Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MTC	321	Tonal Counterpoint	Counterpoint based on 18th-century polyphonic style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites:Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MTC	323	Composition	Writing music compositions, with emphasis on basic techniques and smaller structures. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisites:Must be a Bachelor of Music student
MTC	327	Intermediate form and Analysis	Organizing elements in the most important contrapuntal and homophonic musical forms from the Renaissance through the 19th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites:Must be a Music student; must have completed MTC222 with a C or greater or be currently enrolled
MTC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	422	Musical Acoustics	Properties of sound and tone. Harmonic series, instruments, the ear, auditorium acoustics, and the reproduction of sound. Assumes a thorough knowledge of musical notation, intervals, scales, and harmony, or 2 years of music theory.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; Passed audition
MTC	425	Studies in 20th-Century Theory	Continued development of analytical techniques and aural skill, with an examination of theoretical systems applicable to 20th-century music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites:Must be a Music student; must have completed MTC223 with a C or greater or be currently enrolled
MTC	428	Advanced form and Analysis	Organizing principles of the large forms of musical composition in the 19th and 20th centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites:Must be a Music student; must have completed MTC223 with a C or greater or be currently enrolled
MTC	429	Canon and Fugue	Writing of canons and fugues in tonal style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MTC 321 with C or better
MTC	430	20th-Century Counterpoint	Counterpoint studies utilizing 20th-century idioms.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MTC 223 with C or better
MTC	433	Orchestration	Studies scoring music for full and chamber orchestras; examines individual orchestral instruments (characteristics and performance techniques).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student
MTC	436	Electronic Studio Techniques I	Principles of analog electronic music systems and their application in the composition of electronic music. Assumes a thorough knowledge of music notation and intervals.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	437	Electronic Studio Techniques II	Principles of digital electronic music systems and their applications in the composition of electronic music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	440	Jazz Theory and Ear Training	Advanced study of jazz harmonic systems. Daily oral drills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	441	Jazz Composition	Creative writing in the smaller forms and in the idiom of jazz.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisites:Must be a Music student; must have completed MTC 321 AND MUP 236 with a C or greater or be currently enrolled
MTC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MTC	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MTC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	495	Final Project	Half recital of compositions or approval of a large-scale composition or a research paper.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Music	0.		
MTC	496	Theory Project	Supervised individual writing project dealing with music theory.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MTC	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MTC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MTC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MTC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	516	Baroque Music	Detailed analysis of selected examples of music from the Baroque period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	517	Classic Music	Detailed analysis of selected examples of music from the Classic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	518	Romantic Music	Detailed analysis of selected examples of music from the Romantic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student

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MTC	519	Late 19th-Early 20th Century Music	Detailed analysis of selected examples of music from the late 19th and early 20th centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	520	Analytical Techniques	Analytical techniques systematically applied to music. Concentration on structural and compositional procedures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	523	Advanced Composition	Advanced music composition, including complex techniques and larger structure. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisite: Graduate Music student
MTC	525	Pedagogy of Theory	Practices and principles of teaching music theory. Emphasizes most desirable and practical offerings possible. Comparative studies of existing practices.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	527	History of Music Theory	Theory from Pythagoras to the 16th century. Need not be taken in sequence with MTC 528.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	528	History of Music Theory	Theory from the 17th century to the present. Need not be taken in sequence with MTC 527.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisite: Graduate Music student
MTC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	723	Advanced Composition	Special problems in writing in complex forms and textures.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

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MTC	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MTC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed MAT 113, 114, 117, 119, 142, 170, 210, 270 or 271 with a grade of D or greater or be currently enrolled.
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed MTE 180 with a grade of D or greater or be currently enrolled
MTE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Pre-requisite: Freshman standing; Maximum 25 earned hours
MTE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MTE	380	Arithmetic in the Elementary School	Historical numeration systems, overview of elementary number theory, including primes, factorization, divisibility, bases, modular systems, linear congruence, and continued fractions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	381	Geometry in the Elementary School	Informal geometry, including concepts of length, area, volume, similarity, and congruence. Classification of figures, straightedge and compass constructions, and motion geometry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in mathematics education. Requires weekly reflective reading and writing. May be repeated for credit. Fee.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	C	
MTE	482	Methods of Teaching Mathematics in Secondary School	Examines secondary school curricular material and analyzes instructional devices. Teaching strategies, evaluative techniques, diagnosis, and remediation and problem solving. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	483	Mathematics in the Secondary School	Topics in geometry, number theory, algebra, and analysis. Emphasizes unifying principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MTE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
MTE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
MTE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
MTE	585	Modern Geometry for Teachers	Euclidean, projective, and non-Euclidean geometries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	587	Analysis for Teachers	Subject matter in mathematics appropriate for accelerated programs in secondary schools, including analytic geometry and calculus.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MTE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MTE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MTE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MTE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MTE	588	Analysis for Teachers		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MTE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		

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MTE	482	Methods of Teaching Mathematics in Secondary School	Examines secondary school curricular material and analyzes instructional devices. Teaching strategies, evaluative techniques, diagnosis, and remediation and problem solving. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MU	502	Hist Musical Style		N	LEC	N	CNV	Herberger College of the Arts	School of Music	2.		
MUE	110	Introduction to Music Education	Overview of music education. Orientation to student characteristics, teacher roles, and foundations of philosophy and history. Requires school observations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student
MUE	161	Introduction to Music Therapy	Overview of the profession of music therapy and its applications in mental health, rehabilitation, and special education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MUE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	211	Music in Recreation	Materials, methods, and organizational structures appropriate for recreational music.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	261	Music Therapy as a Behavioral Science	Orientation to preclinical experience with emphasis on observation skills, assessment, goal setting, and professional ethics. Requires off-campus observations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MUE161 with C or better
MUE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUE	310	Music in Early Childhood Education	Identifying and understanding musical needs of young children. Methods and materials for program development for classroom teachers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	311	Music for Classroom Teacher	Development of the classroom music program in the elementary school. No previous music experience or course work required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	313	Elementary Music Methods	Methods of instruction, planning, and presentation of appropriate contents in music. For music educators and music therapists.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisite: Music student
MUE	315	General Music in Secondary Schools	Curriculum, student characteristics, and teaching strategies for general music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student
MUE	317	Educational Methods for Violin and Viola	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	318	Educational Methods for Cello and String Bass	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	327	Educational Methods for Trumpet and Horn	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	328	Educational Methods for Trombone, Euphonium, and Tuba	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	335	Educational Methods for Guitar	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	336	Educational Methods for Percussion	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Education student
MUE	337	Educational Methods for Flute, Clarinet, and Saxophone	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	338	Educational Methods for Double Reed Instruments	Teaching and playing skills for music teachers. 3 hours per week.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	361	Music Therapy Theory and Practice in Psychopathology	Influence of music on behavior; principles and practices of music therapy and psychiatric clients.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	362	Music Therapy Techniques	Organization, administration, and use of music in rehabilitation with various client populations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Prerequisites: Must be a Music Therapy student; must have completed MUE361 with a C or greater or be currently enrolled
MUE	381	Music Therapy Research	Statistics and research design appropriate for investigations in music therapy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	Pre-requisite: Music Therapy student
MUE	384	Therapy Preclinical I	Paired students provide music therapy for small groups at a community agency for mentally retarded, geriatric, or physically disabled clients for a minimum of 10 clock hours.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	385	Therapy Preclinical II	Individual placement in ASU Music Therapy Clinic.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	386	Therapy Preclinical III	See MUE 385.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	387	Therapy Preclinical IV	Individual clinical work in a community mental health facility.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	388	Therapy Preclinical V	See MUE 387.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	389	Repertoire for Music Therapy	Music skills repertoire for music therapy, including units on brass, strings, woodwinds, electronic instruments, computer music, and improvisation techniques.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Prerequisite: Must be a Music Therapy student; must have completed MUE211 with a C or greater or be currently enrolled
MUE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisite: Music Therapy student
MUE	441	Psychology of Music	Psychological and physiological aspects of music emphasizing musical behavior, function, perception, and learning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	475	Group Process and Music Therapy	Principles of group process, verbal counseling, professional writing, as related to music therapy practice.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-3		Prerequisites: Must be a Music Therapy student; must have completed MUE362 with a C or greater or be currently enrolled
MUE	476	Internship in Music Therapy	Full-time, 6-month, off-campus residency in an approved clinical institution.	N	PRA	N	Z1	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 211 with C or better

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MUE	480	Choral Methods	Methods of instruction, organization, and presentation of appropriate content in choral music classes.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	481	Instrumental Practicum/Methods	Instrumental music as a means of developing music skills, understandings, and attitudes in elementary and secondary school students.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	482	Instrumental Practicum/Methods	See MUE 481.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	485	String Practicum/Methods	For students preparing to administer a string program and teach strings at the elementary level.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MUE	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MUE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MUE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MUE	548	Introduction to Research in Music Education	Survey of research methods and literature in music education. Focuses on interpretation and evaluation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	549	Foundations of Music Education	A treatment of historical perspectives, philosophy-aesthetics identified with music education, and learning theories applied to music teaching/learning. Basic research and writing skills appropriate to graduate studies in music education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	550	Studies in Music Curricula	Scope and sequence of musical experiences. Develops criteria for the evaluation of music curricula.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	551	Advanced Studies in Elementary School Music	For experienced teachers; organization and content of K-6 general music classes. Emphasizes teaching music reading and ear training to young children.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	552	Advanced Studies in Secondary General Music	Organization and content of school music classes that are not performance oriented.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	560	Jazz Pedagogy	Study of pedagogy, repertoire, and technique of instruction in jazz styles, ensemble techniques, and performance practice for school ensembles.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	562	Jazz Rehearsal Techniques	Conducting and rehearsal techniques for school jazz ensembles.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	564	Instrumental Music, Advanced Rehearsal Techniques	In-depth analysis of instrumental techniques in preparation for a thorough discussion of band tuning problems and solutions. Discussion of productive conducting and rehearsal techniques for school music teachers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	566	Instrumental Literature and Pedagogy for Schools	Provides an in-depth examination of ensemble music and teaching techniques to instrumental music teachers.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	568	Choral Music, Advanced Rehearsal Techniques	Musical and vocal techniques necessary for presentation of choral literature. Analysis and experimentation with psychological, acoustical, and other problems of rehearsal and performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	570	Choral Literature for Schools	Comprehensive study and analysis of choral music for the high school with special emphasis on octavo literature.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	571	Music Therapy Seminar I: Supervision and Administration	Covers health care administrative skills pertinent to music therapy practice, including budgeting, resource allocation, and staff supervision.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	572	Music Therapy Seminar II with Lab: Advanced Practice in Music	Deepens and broadens knowledge and skills in music therapy clinical practice.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	573	Music Therapy Seminar III with Lab: Music Therapy Theory and Philosophy	Explores current theory in music therapy and develops the theoretical basis for the profession.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music Therapy MM student
MUE	574	Music Therapy Music Skills I: Improvisation	Teaches new forms of musical improvisation pertinent to music therapy practice, broadening and deepening existing skills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Therapy MM student
MUE	575	Music Therapy Music Skills II: Accompaniment	Teaches new forms of musical accompaniment pertinent to music therapy practice, broadening and deepening existing skills.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Therapy MM student
MUE	579	Psychology of Music	Nature of musicality and its evaluation. Review of recent research.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

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MUE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	585	Vocal Acoustics and Production	In-depth approach to the psychological/physiological workings of the vocal mechanism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	586	Music Therapy Graduate Clinical Project	Develops clinical- and research-based music therapy skills in selected cognate area.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisites:Completed MUE 571, 572, 574, and 575, or currently enrolled.
MUE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	744	Higher Education Instruction	Philosophical and psychological principles of college/university teaching. Patterns of music teacher education and a projection of course outlines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	755	Historical Research in Music Education	Knowledge and insights related to conducting historical research in music education. Includes development of a mini-proposal for a dissertation on the history of music education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		

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MUE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUP	100	Concert Attendance	6 semesters required for all music majors. A total of 4 convocations and 6 approved recitals required each semester.	N	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	0.		
MUP	111	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	117	Applied Jazz Improvisation	Principles, methods, and theory of jazz performance and pedagogy. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	121	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	127	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisites: Music students who have passed audition
MUP	131	Class Piano	4-semester sequence (with MUP 132, 231, and 232) designed for those with little or no piano experience. Emphasizes keyboard technique, sight reading, simple accompaniments, and improvisation. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	132	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Prerequisites: Must be a Music Therapy student; must have completed MUP131 with a C or greater or be currently enrolled
MUP	133	Class Voice	4-semester sequence (with MUP 134, 233, and 234) open to all students. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	133	Class Voice	4-semester sequence (with MUP 134, 233, and 234) open to all students. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	134	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	141	Jazz Fundamentals	Principles, methods, and theory of jazz performance and pedagogy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		Pre-requisites: Music students who have passed audition
MUP	209	Beginning Choral Conducting	Essentials of choral conducting techniques. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	210	Beginning Instrumental Conducting	Essentials of instrumental conducting techniques. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	217	Applied Jazz Improvisation	Emphasizes basic jazz literature, chord symbol reading, melodic patterns and concepts, ear training, analysis of improvised solos, and pedagogical issues. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Prerequisites: Must be a Music student; must have completed MUP141 with a C or greater or be currently enrolled
MUP	231	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student; MUP132 with C or better
MUP	232	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student; MUP231 with C or better
MUP	233	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	234	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	235	Jazz Piano	2-semester sequence (with MUP 236) designed for jazz keyboard experience. Emphasizes chord symbol reading, simple improvisation, and voicing. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	236	Jazz Piano	See MUP 235.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	237	Fretboard Harmony	Scales, chords, harmony, basic improvisation for the guitar. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	250	Diction for Singers	Use of phonetics in the study of song and opera literature. Language emphasis differs each semester. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music students who have passed audition
MUP	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition

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MUP	301	Advanced Class Piano	Required for the choral-general concentration of the Music Education major. Open to other music majors who have completed MUP 232. Emphasizes accompaniments, ensemble playing, score reading, advanced harmonizations, repertoire, technique, and improvisation. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student; MUP 232 with C or better
MUP	302	Advanced Class Piano	Required for the choral-general concentration of the Music Education major. Open to other music majors who have completed MUP 301. A sequential continuation of MUP 301 skills that include both group and studio instruction. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student; MUP301 with C or better
MUP	311	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	317	Applied Jazz Improvisation	Emphasizes listening, analysis, and performance of advanced jazz literature and composition in contemporary styles. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	319	Recording Studio Techniques	Study of both analog and digital recording methods. Includes lab time on recording console and tape machines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	321	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	327	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		Pre-requisites: Music students who have passed audition
MUP	337	Studio Instruction: Collaborative Piano	Repertoire to be selected from vocal and instrumental literature. 1 hour lesson per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	339	Choral Conducting	Elements of choral conducting technique and interpretation. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	340	Instrumental Conducting	Fundamentals of score reading and interpretation of instrumental music. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	344	Chamber Orchestra	Important masterpieces from all periods of music are performed throughout the year. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	345	Symphony Orchestra	Over a 4-year period, the student is introduced to the masterpieces of symphony orchestra literature. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	346	Sinfonietta	Symphonic orchestra that presents approximately six concerts annually, performing masterpieces of the classical repertoire. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	350	Choral Union	Open to all students in the university and to interested singers in the community by audition. Preparation and performance of the larger choral works. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	352	Chamber Singers	Important masterpieces from all periods of music are performed. May be repeated for credit.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	353	Symphonic Chorale	4 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	355	Men's Chorus	Rehearsal and performance of music for mixed voices. 3 hours per week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	357	Women's Chorus	2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	361	Marching and Concert Bands	Staging of formations and drills for football games and other events (fall); masterpieces of symphonic band literature (spring). Meets daily. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	362	Wind Ensemble	Rehearsal and performance of literature for wind ensemble. 2 hours per week in fall, 4 hours in spring. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	363	Chamber Winds	Rehearsal and performance of advanced literature for chamber winds. 2 hours per week. Performing ensemble. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	370	Music Theatre: Techniques	Exercises and improvisations for the singer/actor emphasizing body awareness, basic music theater performance skills, and freedom of the vocal and breath mechanisms. Section 1 (Movement for Singers); Section 2 (Expression); Section 3 (Interpretation); Section 4 (Advanced Expression); Section 5 (Advanced Interpretation). Sections 2 through 5 must be taken in sequence. Each section: 3 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	371	Music Theatre: Workshops	Development of specific skills for musical-dramatic interpretation. Section 1 (Aria Preparation); Section 2 (Broadway I); Section 3 (Broadway II).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		

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MUP	372	Music Theatre: Orchestras	Participation in Lyric Opera Theatre productions. Section 1 (Orchestra); Section 2 (Chamber Orchestra); Section 3 (Chamber Ensemble). May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	373	Music Theatre: Performance	Participation in Lyric Opera Theatre productions. Section 1 (Principal Roles); Section 2 (Chorus). May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	374	Music Theatre: Production	Participation in Lyric Opera Theatre productions. Section 1 (Vocal Performance); Section 2 (Technical Music Theatre); Section 3 (Problems in Production) to be taken concurrently with MUP 373, Section 2.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	376	New Music Ensemble	Rehearsal and performance of music written in the last 20 years. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	377	Brass Choir	Specializing in public performance of music written for brass instruments. 2 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	379	Chamber Music Ensembles	Brass, guitar, keyboard, mixed, percussion, string, vocal, and woodwind ensembles. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	385	Percussion Ensemble	Rehearsal and performance of standard and original repertoire for the percussion ensemble and related instruments. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	386	Jazz Band	Rehearsal and performance of new, traditional, and Latin literature for jazz bands. 4 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	387	Ethnomusicology Ensembles	Performance learning experience for the music of various cultures of the world. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	388	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUP	440	Keyboard Harmony	Performance-oriented class emphasizing chord progressions, harmonization, figured bass realization, stylistic improvisation, transposition, open score reading, and sight reading.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	451	Repertoire	Literature available for performance in all performing media. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	453	Song Literature	Early Italian, English, German, and French art song.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	454	Song Literature	American, Russian, Spanish, Scandinavian, and contemporary song.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	481	Performance Pedagogy and Materials	Principles and methods of performance techniques for each performance field. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	482	Piano Pedagogy	Continuation of MUP 481 (Piano). Problems and techniques of teaching intermediate to advanced piano students.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Music students who have passed audition
MUP	487	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week. May be repeated for credit. May not be taken for audit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Music students who have passed audition
MUP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music students who have passed audition
MUP	495	Performance	For candidates of a BM degree in which 1/2 recital is a requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	0.		Pre-requisites: Music students who have passed audition
MUP	496	Performance	For candidates of a BM degree in which a full recital is a requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	0.		Pre-requisites: Music students who have passed audition
MUP	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		Pre-requisites: Music students who have passed audition
MUP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		Pre-requisites: Music students who have passed audition
MUP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	507	Group Piano Practicum	Curricula, materials, and teaching techniques for group teaching at the university and community college levels. Observation/supervised teaching in group piano.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	508	Studio Observation	Weekly observation of studio teaching by various piano faculty. Paper as final requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		

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MUP	509	Jazz Keyboard Harmony	Emphasizes jazz chords and chord progressions, harmonization, voicing, and analysis of transcriptions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	510	Jazz Keyboard Harmony	Continuation of MUP 509.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	511	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		
MUP	517	Advanced Improvisation	Improvisation techniques within the context of advanced jazz literature. Must be taken in sequence with MUP 518.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	518	Advanced Improvisation	Continuation of MUP 517.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	521	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	527	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour per week. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
MUP	540	Advanced Conducting	Score preparation and conducting techniques for instrumental music. Concentration on study of historical styles. Required of DMA students in Instrumental Music.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	541	The Art Song	Seminar on solo song from its beginning to the present day.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	544	Chamber Orchestra	Important masterpieces from all periods of music are performed throughout the year. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	545	Symphony Orchestra	Masterpieces of symphony orchestra literature. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	546	Sinfonietta	Symphonic orchestra that presents approximately six concerts annually, performing masterpieces of the classical repertoire. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	550	Choral Union	Open to all students in the university and to interested singers in the community by audition. Preparation and performance of the larger choral works. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	551	Repertoire	Literature available for performance in all performing media. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	552	Chamber Singers	Important masterpieces from all periods of music are performed. May be repeated for credit for a total of 8 hours.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	553	Symphonic Chorale	4 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	555	Men's Chorus	Rehearsal and performance of music for mixed voices. 3 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	557	Women's Chorus	2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	561	Marching and Concert Bands	Staging of formations and drills for football games and other events (fall); masterpieces of symphonic band literature (spring). Meets MWF. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	562	Wind Ensemble	Rehearsal and performance of literature for wind ensemble. 4 hours per week. May be repeated for credit. Performing ensemble	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	563	Chamber Winds	Rehearsal and performance of advanced literature for chamber winds. 4 hours per week. May be repeated for credit. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	570	Music Theatre: Techniques	Exercises and improvisations for the singing actor emphasizing body awareness, isolations, and freedom of the vocal and breath mechanisms. Section 1 (Interpretation); Section 2 (Expression); Section 3 (Movement for Singers). Each Section: 3 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	571	Music Theatre: Workshops	Development of specific skills for the musical-dramatic interpretation. Section 1 (Role Preparation); Section 2 (Styles); Section 3 (Opera Scenes); Section 4 (Musical Comedy); Section 5 (Revue Ensembles).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	572	Music Theatre: Orchestras	Participation in Lyric Opera Theatre productions. Section 1 (Orchestra); Section 2 (Chamber Orchestra); Section 3 (Chamber Ensemble). May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	573	Music Theatre: Performance	Participation in Lyric Opera Theatre productions. Section 1 (Principal Roles); Section 2 (Chorus).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	574	Music Theatre: Production	Participation in Lyric Opera Theatre productions. Section 1 (Vocal Performance); Section 2 (Technical Music Theatre); Section 3 (Problems in Production) to be taken concurrently with MUP 573, Section 2.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	576	New Music Ensemble	Rehearsal and performance of music written in the last 20 years. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		

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MUP	579	Chamber Music Ensembles	String, brass, woodwind, percussion, keyboard, vocal, and mixed ensembles. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	581	Performance Pedagogy and Materials	Principles and methods of performance techniques for each performance field. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	585	Percussion Ensemble	Rehearsal and performance of standard and original repertoire for the percussion ensemble and related instruments. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	586	Jazz Band	Rehearsal and performance of new, traditional, and Latin literature for jazz bands. 4 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	587	Ethnomusicology Ensembles	Performance learning experience for the music of various cultures of the world. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	588	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	596	Solo Performance	May be full recital, major operatic role, solo performance with orchestra, ensemble, or lecture recital.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	597	Solo Performance	See MUP 596.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUP	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	671	Choral Repertoire	Examines large choral/orchestral works to determine their musical and textual characteristics from a conductor's point of view.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		

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MUP	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	727	Studio Instruction	Minimum contact of 1 hour per week. May be repeated for credit. Conducting students register for 2 semester hours; all other students register for 4 semester hours. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		
MUP	751	Seminar in Piano Literature	In-depth study of selected topics related to the standard piano literature. Requires research paper, bibliography, class presentation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	796	Solo Performance	May be repeated for credit.	N	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUS	340	Survey of Music History	Major periods, composers, and compositions in the history of music.	N	LEC	N	OPT	Herberger College of the Arts	School of Music	3.	HU & H	
MUS	100	Fundamentals of Music Notation	Provides nonmusic majors with sufficient symbol literacy to begin work in the field of musical learning. Credit not applicable toward any music degree.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUS	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C	
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	355	Survey of American Music	Growth and development of American music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	
MUS	356	Survey of Musical Theatre	Music's place in the theatre, viewed in terms of historical importance and relative function. Fee (hybrid/ Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	410	History of Women in Music	Surveys musical achievements of women as well as the historical contexts that shaped and defined their artistic development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	
MUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MUS	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		

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MUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MUS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUS	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

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MUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUS	340-W	Listening to Music	Major periods, composers, and compositions in the history of music.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	349	Music in America	Current styles of American music including jazz, popular, and folk music.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	356	Survey of Musical Theatre	Music's place in the theatre, viewed in terms of historical importance and relative function. Fee (hybrid/ Internet).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	357	Aesthetic Perception in Music Performance	2 hours per week. May be repeated for credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
MUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
MUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
NAN	505	Nanoscience and Society	Integrates nanoscience and nanotechnology with potential societal issues involved in the students' NAN 593 Applied Projects. Coordinated by the faculty and research staff at the Center for Nanotechnology in Society.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
NAN	506	Innovation and IP Management	Intellectual Property (IP) Management in the context of innovation (research, regulations, manufacture, access to markets, and trade) with emphasis on strategies, public-private interface, licensing, and technology transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
NAN	511	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311; PHY 315; Credit is allowed for only MSE 526, NAN 511, PHY 511, or PHY 481

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NAN	512	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	527	Electroanalytical Chemistry	Theoretical and practical considerations for modern electroanalytical chemistry, including voltammetry, potentiometry, and microelectrode analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.		Pre-requisites: CHM 346 with C or better. Credit is allowed for only CHM 527 or NAN 527
NAN	542	Topics in Biophysics	Overview of modern biology, length scales: emphasizes molecular and cellular biology. Nonequilibrium systems: compare and contrast stochastic processes in biological and physical systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only MSE 552, NAN 552, PHY552 or SEM 552
NAN	564	Bionanotechnology	The use of biomolecules, bioelectronics, and biomedicine for applications in nanotechnology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	571	Quantum Physics	Review modern physics, chemistry, math. Differential equation, operator, matrix formulations. Free particle, bound state problems. Examples across physics and astronomy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
NAN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
NAN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
NLM	160	Voluntary Action and Community Leadership	Introduction to voluntary behavior in American society for students interested in volunteerism, community service, and civic engagement.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites:Completed less than 75 credit hours
NLM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
NLM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	210	Community Services and Professions	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: Nonprofit Leadership and Mngmnt student with NLM 160 (or NLM 191) with C or better if completed OR Recreation (nonprofit emphasis) student with REC 120 with C or better if completed
NLM	220	Introduction to Nonprofit Organizations	Introduces the nonprofit sector and its role in developing the cultural, economic, and social impact in U.S. society.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	300	Fund Raising and Resource Development	Theory and practice of philanthropy, resource acquisition methods through ethical fund raising, and earned income approaches for nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: NLM 160 (or NLM 191) with C or better if completed
NLM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-or Co-requisite: NLM 160 (or NLM 191) with C or better if completed
NLM	310	Volunteer Management	Administration of volunteer service programs. Studies and analyzes the volunteer personnel process.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
NLM	320	Professional Development Seminar	Professional seminar featuring nonprofit executives; variable topics on leadership and management concerns. Forum for exchange between students and professionals.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		
NLM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: NLM 410, PRM 304, REC 330 or TDM 372 with a C or better or currently enrolled
NLM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: Nonprofit Leadership & Mgmt, or Recreation(Mgt) students. Received a C or better in NLM 410 or currently enrolled
NLM	410	Social Entrepreneurship	Introduces social entrepreneurship, including how ideas are formulated, constructed, and implemented; experiential learning in developing a social enterprise plan. Credit is allowed for only NLM 410 or 562.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites:MAT 142 or higher;NLM or Recreation Management (nonprofit emphasis) major;2.50 ASU GPA;45 minimum hours;grade of C or better in ENG 102, NLM 210, & 220
NLM	420	American Humanics Institute	National Management Institute for preparation of nonprofit professionals. Requires out-of-state conference.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-2		
NLM	430	Managing Nonprofit Organizations	Analyzes administrative structures, decision making, and program delivery within nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must be Academic Level Senior or higher; Earned grade of C or better in NLM 220 or REC 220 or currently enrolled.
NLM	435	Service Learning for Community Development	Applies youth and adult development theories through community service immersion in collaboration with local nonprofit partners.	N	DIS	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Pre-requisites: Earned grade of C or better in NLM 402, 430, PRM 401, 402 or TDM 401, 402 in; Earned grade of C or better in TDM403, NLM403 or PRM403 or have completed REC 350 or REC 440 with C or better. Academic level senior
NLM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
NLM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
NLM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
NLM	501	Program Evaluation and Information Management	Develops skills in several areas, including evaluation, needs assessment, information and data collection, data management and analysis, computer applications, and report writing.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	510	Foundations of Nonprofit Management	Explores the history and role of the nonprofit sector in American society; contemporary issues and delivery systems. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	520	Financial Management in Nonprofit Organizations	Reviews funding structures utilized by nonprofit organizations; financial tools used by managers; fund raising practices and tools. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	540	Volunteer and Human Resources in Nonprofit Organizations	Managing the volunteer and paid staff human resources in nonprofit organizations; practices and theories. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	550	Philanthropy: Theory and Practice	Provides overview of selected fundraising topics and insight into both the theory and practice of this area.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

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NLM	560	Leadership and Ethics in the Nonprofit Sector	Examines leadership and ethical questions encountered by managers and leaders in the nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	562	Social Entrepreneurship	Introduces social entrepreneurship, including how ideas are formulated, constructed, and implemented; experiential learning in developing a social enterprise plan. Credit is allowed for only NLM 562 or 410.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	584	Internship		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
NLM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
NLM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-12		
NLM	610	Executive Leadership and Governance	Examines the multiplicity of roles for executives and board of directors in providing strategic leadership for nonprofits.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	620	Critical Issues Facing Nonprofits	Improves understanding of trends emerging within nonprofits such as leadership, resource development, and social responsibility.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Prerequisite: Master of Nonprofit Studies major
NTR	100	Introductory Nutrition	Basic concepts of human nutrition. Recent controversies in nutrition and how food choices affect personal health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	142	Applied Food Principles	Applied scientific principles of food preparation and production.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nutrition (Food/Nutrtn Mngt), Nutrition (Human Nutrition), Nutrition (Dietetics), or Nutrition (Nutrition Comm) student
NTR	150	Introduction to the Professions in Nutrition and Dietetics	Introduces the professions of nutrition and dietetics; their history, practice, and future; credentials, ethics, and standards of practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
NTR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	241	Human Nutrition	Principles of human nutrition. Emphasizes nutrient metabolism and the relationships between diet and disease.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: CHM 101 or CHM 113 with D or better
NTR	300	Computer Applications in Nutrition	Introduces nutrition and food software, including dietary assessment and analysis, food inventory and control, and telecommunications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	CS	Pre-requisites: Must have completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	320	History of Human Nutrition	Origins of human nutrition; evolving theories of nutrition and disease; historical role of nutrition in social, military, cultural events.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NTR 100 or 241
NTR	340	Applications in Human Nutrition	Applies nutrient metabolism through case studies and product evaluations; special topics in human nutrition.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: BIO 201; NTR 241
NTR	341	Introduction to Planning Therapeutic Diets	Cultural, health, and economic aspects of planning therapeutic diets. Assessments of food and diet composition. Reviews common therapeutic diets. Credit is allowed for only NTR 341 or 345. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	343	Food Service Purchasing	Introduces purchasing systems, bid processes, receiving and storage procedures, and regulatory agencies involved in the food service industry.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 142 with D or better

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NTR	344	Nutrition Services Management	Organization, administration, and management of food and nutrition services in hospitals and other institutions.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: FON 100, FON 241, NTR 100 or NTR 241
NTR	345	Development of Healthy Cuisines	Principles and applications of nutrition and medical nutrition therapy; development of healthy cuisines in health and disease states. Credit is allowed for only NTR 345 or 341.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or less than in NTR 341 or completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	346	Sports Nutrition	Nutritional needs of recreational and elite athletes; energy balance; nutrient metabolism during activity; fluid-electrolyte regulation; evaluation of ergogenic supplements.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or better in FON 241 or NTR 241 or be currently enrolled AND earned D or better or currently enrolled in BIO 202
NTR	348	Cultural Aspects of Food	Origins, development, and diversity of food preferences and dietary habits; food patterns and attitudes of global populations and U.S. immigrants.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB & C & G	Pre-requisites: NTR 100 or 241
NTR	350	Nutrition Counseling	Counseling techniques in nutrition; interpersonal and communication skills in clinical and community sites; nutrition education for individuals and populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisites: NTR 341 with C or better or NTR 345
NTR	351	Nutrition and Health Communications	Approaches of nutrition and health communications; development of nutrition and health communication materials for selected target audiences.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NTR 100 or 241
NTR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	400	Preprofessional Preparation in Dietetics	Applies academic knowledge in field practicum; aspects of professional development.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed NTR 440, NTR 441, or NTR 444 with D or better or be currently enrolled AND earned D or better in NTR 341 or be currently enrolled.
NTR	401	Professional Practice in Food Service Management	Applies academic knowledge in food service management to field practicum; develops practical skills in planning, purchasing, production, management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or better in NTR 343 or NTR 445 or be currently enrolled
NTR	440	Advanced Human Nutrition I	Metabolic reactions and interrelationships of vitamins, minerals, and water.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: BIO 202 with C or better; NTR 241 with C or better; NTR 340 with C or better; Credit is allowed for only NTR 440 or 540
NTR	441	Advanced Human Nutrition II	Metabolic reactions and interrelationships of carbohydrate, lipid, and protein.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: You may not enroll in NTR 441, if you have credit for NTR 541; BIO 202 with D or better; BCH 361 with C or better; NTR 241 with D or better
NTR	442	Experimental Foods	Food product development techniques, food evaluation and testing, and investigation of current research into food composition. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Earned D or better in NTR 142 or FON 142 or currently enrolled in NTR 142 AND earned D or better in CHM 231 or CHM 331 or currently enrolled.
NTR	444	Medical Nutrition Therapy	Principles of medical nutrition therapy for prevention and treatment of disease and promotion of health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 341 or FON 341 with C or better OR enrolled in NTR 341; BIO 202; Credit is allowed for only NTR 444 or 544
NTR	445	Management of Food Service Systems	Standardized methods of quantity food preparation, operation of institutional equipment, institutional menu planning, quantity food experiences. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 100 or NTR 241 with D or better
NTR	446	Human Nutrition Assessment Lecture/Laboratory	Clinical and biochemical evaluation of nutritional status. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned C or better in BCH 361 or currently enrolled AND earned C or better or currently enrolled in NTR 440 or NTR 441
NTR	448	Community Nutrition	Food-related behaviors; organization and delivery of nutrition services; program design, implementation, and evaluation strategies; nutrition assessment of populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisite: NTR 100 or NTR 241 with D or better
NTR	450	Nutrition in the Life Cycle I	Emphasizes nutritional needs and problems during pregnancy, lactation, infancy, and childhood.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisite: NTR 100 or NTR 241 with D or better
NTR	451	Nutrition in the Life Cycle II	Nutritional needs and problems of adults, particularly the elderly.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 100 or 241
NTR	492	Honors Directed Study		N	THE	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NTR	493	Honors Thesis		N	THE	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
NTR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
NTR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	501	Research Methods in Nutrition II	Reviews survey, focus group, and epidemiologic research; develops questionnaires; analyzes large data sets.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	521	Nutrition and Immunology	Critical review of current research on nutrient metabolism, immune function.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	523	Vegetarian Nutrition	Health benefits, nutritional characteristics, potential risks of vegetarian diets.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	525	Complementary Nutrition	Critical review of functional foods, phytochemicals, nutrient supplements in health promotion.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	527	Energy Balance and Weight Management	Reviews energy regulation, eating disorders, obesity, weight control methodologies.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	529	Pediatric Nutrition	Critical review of pediatric disease states and current nutritional therapies.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	537	Evidenced-Based Nutrition	Reviews current evidence of the role of diet on disease prevention, development, and management.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

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NTR	540	Advanced Micronutrient Metabolism	Metabolism of vitamins and minerals, primarily as applied to humans, with research literature emphasized.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 440 or 540
NTR	541	Advanced Macronutrient Metabolism	Metabolism of protein, fat, and carbohydrate, primarily as applied to humans, with research literature emphasized.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 441 or 541
NTR	544	Therapeutic Nutrition	Current theories of the nutritional prevention or treatment of various diseases.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 444 or 544
NTR	545	Management of Institutional Food Service Systems	Standardizes methods of quantity food preparation, operation of institutional equipment, institutional menu planning, quantity food experiences. May require field trips. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	546	Assessment Techniques in Nutrition	Clinical and biochemical evaluation of nutritional status. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	548	Nutrition Program Development	Planning, development, implementation, and evaluation of community nutrition programs, including the process of grant applications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	550	Advanced Maternal and Child Nutrition	In-depth review of metabolic characteristics and nutritional needs of the pregnant woman, lactating woman, infant, and child.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
NTR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
NUR	314	Health Assessment for Registered Nurses	Introductory knowledge and skills for systematic physical, psychosocial, and developmental nursing assessment over the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	341	Theory I: Health Integrity	Concepts related to health integrity with focus on individual clients. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Must be an undergraduate Nursing student; Co-requisite: NUR 381
NUR	342	Theory II: Health Integrity and Alterations	Concepts related to selected alterations in health integrity with focus on individuals, families, and groups. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate Nursing student, NUR 381 with C or better
NUR	351	Pharmacology in Nursing	Foundations of pharmacological interventions.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be an undergraduate Nursing student; Co-requisite: NUR 381
NUR	361	Professional Development I	Introduces professional nursing roles and responsibilities.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Must be an undergraduate Nursing student; Co-requisite: NUR 381
NUR	362	Professional Development II: Methods and Critical Appraisal for Evidence-Based Practice	Introduces the process of scientific and clinical inquiry, research methodology, and critical appraisal for use in evidence-based practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: Must be an Undergraduate Nursing student, and must have completed NUR 381 with a grade of C or greater, or currently enrolled in NUR 381.
NUR	364	Professional Development II: Nursing Research for RNs	Introduces concepts and issues in nursing research. Emphasizes quantitative and qualitative research processes, examination of nursing research literature.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: Undergraduate nursing student.

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NUR	381	Nursing Practice I	Applies health assessment, nursing process, and basic skills to promote and maintain health integrity of individual clients. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	7.		Pre-requisites: Must be an undergraduate Nursing student
NUR	382	Nursing Practice II	Applies nursing process with selected individuals, families, and groups experiencing alterations in health integrity. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	8.		Pre-requisites: Must be an undergraduate nursing student. & must have completed NUR 381 with a grade of C or greater, or be currently enrolled.
NUR	391	Registered Nurse Mobility I: Professional Development	Historical, philosophical, and theoretical bases for professional nursing practice. Enhancement of critical inquiry skills through exploration of selected issues.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisties: Must be in Nursing
NUR	392	Registered Nurse Mobility II: Health and Wellness	Concepts of health integrity and community-based practice and professional nursing roles.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisties: Must be in Nursing
NUR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NUR	440	Theory III: Health Integrity and Alterations for RNs	Concepts related to health integrity and alterations with focus on individuals, families, groups, aggregates, and communities.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	6.		Pre-requisites: Undergraduate nursing student; must have completed NUR 392 with a grade of C or greater.
NUR	441	Theory III: Health Integrity and Alterations	Concepts related to health integrity and alterations with focus on individuals, families, groups, aggregates, and communities. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	6.		Pre-requisites: Undergraduate nursing student.
NUR	442	Theory IV: Health Integrity and Alterations	Advanced concepts related to health integrity and alterations in that integrity, with focus on selected client populations. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Undergraduate nursing student; NUR 481 with C or better
NUR	443	Theory V: Leadership and Management	Selected theories and concepts of organizations, management, leadership with focus on nursing management and leadership in healthcare organizations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Undergraduate nursing student.
NUR	444	Theory IV: Health Integrity and Alterations for RNs	Advanced concepts related to health integrity and alterations in that integrity, with focus on selected client populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NUR 315, NUR 391, TWC 361 with C or better
NUR	445	Theory V: Leadership and Management for RNs	Selected theories and concepts of organizations, management, leadership with focus on selected client populations for experienced RNs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be an undergraduate nursing student.
NUR	460	Professional Development III: the Art of Nursing for RNs	Explores the aesthetic, ethical, and personal patterns of knowing in nursing for the practicing RN.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: Must be an undergraduate nursing student.
NUR	461	Professional Development III: the Art of Nursing	Explores the aesthetic, ethical, and personal patterns of knowing in nursing.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: Must be an undergraduate nursing student.
NUR	462	Professional Development IV	Focuses on role transition to professional nursing.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Undergraduate nursing student; NUR 481 with C or better
NUR	464	Professional Development IV for RNs	Capstone professional development course for the RN student.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Must be an undergraduate nursing student.
NUR	481	Nursing Practice III	Lab, clinical experiences. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	7.		Pre-requisites: Undergraduate nursing student.
NUR	482	Nursing Practice IV	Capstone course with focus on synthesis and application of patterns of knowing and leadership, management concepts in collaborative nursing practice. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	8.		Pre-requisites: Undergraduate nursing student.
NUR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	492	Honors Directed Study		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NUR	493	Honors Thesis		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
NUR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NUR	495	Community Health/Home Health Practice for RNs	Theoretical content related to community and home healthcare. Clinical practice with individual, family aggregates.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	496	Leadership and Management Practice for RNs	Capstone leadership and management experience for the RN student that utilizes patterns of knowing in nursing practice. fee	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate nursing student.
NUR	497	Honors Colloquium		Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NUR	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		
NUR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
NUR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Graduate Nursing student; NUR 551 with B or better
NUR	503	Adult Acute: Advanced Theory I	Focuses on theoretical, research, and advanced assessment skills required for advanced practice across the acute care continuum.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 503 and 564 with a grade of B or better or be currently enrolled.
NUR	508	Advanced Nursing Practicum I: Adult Acute Nursing	Required practicum for preparation for advanced practice across the acute care continuum. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must co-enroll in NUR 503
NUR	511	Advanced Practice Nursing Role I	First of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Must be in the NURSING Graduate Program
NUR	513	Advanced Practice Nursing Role III	Third of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Graduate Nursing student; NUR 512 with B or better

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NUR	521	Psychiatric/Mental Health Nursing: Advanced Mental Health Assessment	Theories related to holistic health assessment for the promotion of physical/psychological health; develops skill in mental health assessments.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing student
NUR	526	Advanced Neonatal Physical Assessment	Develops assessment skills related to neonate/infant, including history-taking, physical, developmental, behavioral, cultural, and genetics assessment to provide comprehensive advanced practice neonatal nursing care. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Nursing MS student or Non-degree seeking Graduate student; Co-requisite: NUR 525
NUR	527	Neonatal and Pediatric Pharmacology in Nursing Practice	Examines and discusses the rationale, action, and therapeutic effect for using each class of medications employed in neonatal and pediatric healthcare.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Be in:NUNURDTMS or NUPCNDTMS, or NUGRNONDGR; & completed NUR 525 w/ a grade of B or greater(or enrolled) or co-enrolled, & completed NUR 526 or NUR 558 w/a grade= B or greater or be enrolled in either, or co-enrolled
NUR	528	Advanced Developmental and Family-Centered Nursing Care	Provides the foundation for providing advanced nursing care of children that is developmentally supportive, family centered, and culturally competent. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites:Be in:NUNURDTMS or NUPCNDTMS, or NUGRNONDGR; & completed NUR 525 w/ a grade of B or greater(or enrolled) or co-enrolled, & completed NUR 526 or NUR 558 w/a grade= B or greater or be enrolled in either, or co-enrolled
NUR	538	Understanding & Applying Prin of Evidence-Based Care in Advanced Practice	Understanding how application of evidence-based practice principles assist advanced practice nurses and other healthcare professionals to provide best care.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	539	Generating Internal Evidence and Validating Application of Evidence through Outcomes Management	Assists advanced practice clinicians to provide best care through generating and validating application of evidence using outcomes management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	540	Teaching Evidence-Based Practice	Focuses on strategies that have been demonstrated as effective methods for teaching evidence-based practice in academic and clinical settings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
NUR	541	Application of Principles of Mentorship for Change toward Evidence-Based Practice	Assists advance practice nurses and other healthcare professionals to facilitate change toward evidence-based practice through mentorship.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	543	Disseminating Evidence to Advance Best Practice in Healthcare and Health Policy	Focuses on disseminating evidence to advance best practice with an emphasis on advancing EBP in health policy and the media.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	558	Advanced Pediatric Health Assessment	Expansion of basic health assessment skills and development of clinical problem-solving skills for advanced practice nurses. Includes assessments of infants, children, and adolescents. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS,or NUPCNDTMS,or NUGRNONDGR; & received a B or > in NUR 551,500,552,554,, or co-enrolled.
NUR	559	Advanced Health Assessment	Expansion of basic health assessment skills and development of clinical problem-solving skills for advanced practice nurses. Includes assessments of infants, children, adolescents, and adults. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS,or NUPCNDTMS,or NUGRNONDGR; & received a B or > in NUR 551,500,552,554, or be currently enrolled, or co-enrolled.
NUR	578	Gestalt Therapy I	Introduces theory and methodology of Gestalt therapy and its uses for mental health promotion and restoration.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	579	Gestalt Therapy II	Focuses on further development of Gestalt therapy and its application in working with various client populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NUR 578 with B or better
NUR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing student
NUR	581	Advanced Nursing Practicum I: Community Health Nursing	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be in Nursing MS or Nursing (Comm Health Adv Prac) ; AND co-enrolled in CHP 501 and completed NUR 500 with a grade of B or greater,.
NUR	582	Advanced Human Physiology	Analyzes major theories and concepts of human physiology. Explores interrelationship of physiology and health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-3		Pre-requisites: MS Nursing, AHN or non-degree Nursing student; NUR 500, 552 and 554 with B or better
NUR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites:Must be in Nursing MS or Nursing (Comm Health Adv Prac); NUR 500, 551, 552 and CHP 502 with B or better; NUR 581 or 587 with B or better; Co-requisite: NUR 510
NUR	587	Advanced Nursing Practicum II: Community Health Nursing	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing MS or Nursing (Comm Health Adv Prac); NUR 581 with B or better; Co-requisite: CHP 502
NUR	589	Research Utilization	Emphasizes the synthesis and application of research to an identified clinical nursing problem. Must be repeated for credit.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-2		
NUR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		

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NUR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Nursing Graduate student
NUR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Nursing Graduate student
NUR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	601	Professional Role Development in Nursing and Healthcare Innovation	Explores professional identity in nursing education, health policy, and research and how one's identity can influence individual, family, and community engagement in healthcare.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing & Healthcare Innovation PhD student
NUR	603	Social and Contextual Issues in Nursing and Healthcare	Analyzes nursing practice and the healthcare system for an identified population using social-ecological approaches.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	604	Philosophy of Science Perspectives in Nursing and Healthcare Innovation	Analyzes the history and philosophy of science as a basis for knowledge and academic scholarship in nursing and healthcare innovation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	605	Theories Related to Nursing and Healthcare Innovation	Examines theoretical perspectives and approaches guiding research in nursing and healthcare innovation across the lifespan. Includes the historical evaluation, social contextual factors, implicit assumptions, and bias that influence nursing and healthcare innovation knowledge generation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	608	Qualitative Research Design and Methods	Explores and critiques selected qualitative research approaches. Includes fieldwork exercises as an integral part of course expectations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	609	Quantitative Research Design and Methods	Examines multiple research approaches in clinical and health policy research from a quantitative perspective.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	610	EBP: Critical Appraisal/Synthesis-Evidence	Knowledge and skills in critical appraisal and synthesis of evidence to guide best practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	611	Collaborative Inquiry	Seminar and immersion experience designed to foster student participation in multidisciplinary research teams to address nursing and health problems.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	612	Advanced Analysis of Variance: Design and Analysis of Experiment	Introduces theory, methods, and practice of analysis of variance.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	613	Principles of Regression and Correlation	Introduces theory, methods, and practice of regression analysis.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	614	Design and Implementation of Theory-Based Interventions	Focuses on the knowledge related to advanced methods for intervention research. Examines methodological, ethical, and practical issues in the design and implementation of theory-based intervention studies.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	670	Curriculum Development in Academic and Practice Settings	Includes analyses of historical, philosophical, societal, environmental, cultural, technological, and educational factors of curriculum development in academic and practice settings.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to a Nursing graduate Degree or Certificate program
NUR	671	Teaching in Academic and Practice Settings	Analyzes theories, issues, and research related to teaching in nursing. Focuses on the process of teaching/learning.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to a Nursing graduate Degree or Certificate program; NUR 670 completed with a D or better or currently enrolled
NUR	672	Design and Delivery of Mediated Instruction	Addresses instructional design issues, theory, and practices related to online and electronically mediated learning.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program; NUR 670
NUR	673	Producing and Evaluating Programs for Academic and Practice Settings	Critical examination of standards, regulatory environment, administrative systems, leadership requirements, technological infrastructure, human factors, future trends regarding mediated education planning, production, and evaluation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program; NUR 670
NUR	679	Biostatistics: Principles of Statistical Inference	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
NUR	686	Management of Common Health Problems in Geriatrics	Provides theoretical foundation for advanced geriatric healthcare focusing on the epidemiology of aging and the effects of senescence on cognition and organ systems. Emphasizes the core concepts of aging, including health management and end of life care. Uses theory building approaches for applying health management process and outcomes to clinical practice and policy.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		

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NUR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	692	Research		N	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
NUR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	Nursing Programs Downtown Campus	1-4		
OMT	343	Occupational Safety and Ergonomics	Health and safety movement, accident theories and effects, OSHA standards and liability, safeguarding, hazards, workers' compensation, ergonomics, and safety.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	344	Industrial Organization	Industrial organization concepts. Topics relate to industrial relations, governmental regulations, organizational structure, labor relations, human factors, and current industrial practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	345	Public Sector Management	Management in government and public agencies. Includes mission, planning and organizing to provide services, human resource issues, conflict resolution, coordination.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	401	Statistics for Industry	Two-part online statistics with applications for the practitioner in industry. Includes data description, measures of central tendency and variability, probability, tests of hypotheses, regression analysis and analysis of categorical data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:MAT 117 with a grade of D or better, or currently enrolled
OMT	402	Legal Issues for Technologists	American legal system and impact on technology management issues: contracts, torts, intellectual property, white collar crime, antitrust, environmental, and employment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Minimum Junior standing
OMT	405	Forecasting and Evolution of Technology	History and evolutionary nature of selected technologies, issues in the management of emerging technologies, and methods of technological forecasting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Minimum Junior standing
OMT	430	Ethical Issues in Technology	Topics in social responsibility for industrial technology and engineering.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:School of Technology or Coll of Engr & Appl Sci Non-Degree plan or School of Technology BAS, BS, or MS Tech plan
OMT	440	Introduction to International Business	International business principles and operations, including partnerships, trade agreements, currency issues, international sales, and cultural differences between countries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	Prerequisites:Must have received a D or greater in IST346 or MGT301 or OMT440 (or be currently enrolled in IST346 or MGT301 or OMT440) OR you must be in an Engineering & Appl Sci or Sch of Tech Plan: NDegr,BAS,MS,MSTech
OMT	445	Industrial Internship	Work experience assignment in industry commensurate with student's program. Specialized instruction by industry with university supervision. Pass/fail.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-10		Prerequisites: Minimum 2.25 GPA AND Minimum Junior standing AND Technology & Innovation BAS or BS student
OMT	451	Industrial Distribution and Materials Management	Surveys topics in industrial distribution, including, but not limited to, materials handling, purchasing, receiving, warehousing, traffic, inventory control, and shipping.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Engr & Appl Sci or Sch of Tech Plans: Non Degree or BAS or MS or MSTech OR must have received a C or greater in TMC346 OR received a D or greater in IST346 or MGT301 (or becirrently enrolled in TMC346 or IST346 or MGT301
OMT	452	Industrial Human Resource Management	Concepts and practices of human resource management in a global industrial environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Engr & Appl Sci or Sch of Tech Plans: Non Degree or BAS or MS or MS Tech
OMT	453	Safety Management	Development and management of safety programs, education and training, and relationships within an organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Must have received a D or greater in ITC343 or ITM343 or OMT343
OMT	455	Industrial Marketing Concepts	Customer and sales strategies for industrial organizations, including current practice and future planning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Academic Level must be equal to or greater than a Junior AND must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346, OR be in a Schl of Tech Grad Plan
OMT	456	Introduction to Organized Labor	Introduces labor relations, unions, federations, collective bargaining, grievances, and labor legislation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346
OMT	461	Operations Management	Introduces supervisory principles as applied to production of goods and services.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: IMC 346 or IST 346 or MGT 301 or (TMC 346 AND APM 301) or STP 420, OR Engr & Tech & Innov: Non Degree or BAS or MS or MS Tech
OMT	480	Organizational Effectiveness	Human aspects of supervisory behavior in the industrial setting and how they influence efficiency, morale, and organizational practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346
OMT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
OMT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Prerequisites: Academic Level must be greater than or equal to a Junior AND your Univ Cum GPA must be greater than or equal to 2.25
OMT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
OMT	502	Financial Management	Examines corporate financial and managerial accounting systems, budgeting, and financial policy, using microcomputers to analyze, forecast, and report information.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	503	Marketing Management	Modern methods and industrial case studies of planning, pricing, promoting, and distributing goods and services in the global marketplace.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	504	Law and Ethics for Technical Professionals	Analyzes legal and ethical framework for making managerial decisions in the corporate environment of engineering- and technology-related industries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	520	Strategic Management of Technology	Analyzes entrepreneurial dynamics and technology development, methods of research and development management, new technology implementation, and start-up organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	540	International Management	Practices and procedures for effective management of multinational business organizations, including partnerships, joint ownerships, and global subsidiaries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	548	Statistical Methods for Research	Multivariate statistical techniques to analyze research data. Uses statistical software and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	549	Research Techniques and Applications	Selection of research problems, analysis of literature, individual investigations, preparing reports, and proposal writing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	550	Industrial Training and Development	Training techniques and learning processes. Planning, developing, evaluating, and managing industrial and governmental programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	552	Global Management Philosophies	Analyzes and compares significant supervision philosophies developed in various industrial nations and their potential application in the United States.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	560	Managerial Decision Making	Analyzes common decision-making biases and techniques to overcome them. Uses both subjective quantitative decision tools and computerized decision aids.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	570	Advanced Project Management	Planning, organizing, coordinating, and controlling staff and project groups to accomplish the project objective.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: You may not enroll in OMT 570, if you have credit for TMC 470
OMT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
OMT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
OPM	301	Operations Management	Introduces the management of service and manufacturing conversion processes, with emphases on quality management and computer applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: Must be a Global Management student with conditional or professional status
OPM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
OPM	502	Management of Operations Technology	Design, control, and improvement of operations technology. Concepts and modeling tools required for strategic decisions in manufacturing and service operations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		
OPM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
PAF	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	300	Public Management and Administration	Examines the context and role of the public manager and the development of the field of public administration.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	340	Public Management and Policy	Develops conceptual, critical, and practical understanding of policy, the policy process, and policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	401	Statistics	Surveys statistical concepts and techniques with application to public administration. Does not count toward program of study. Satisfies statistics prerequisite requirement for PAF 501 and 502.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		

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PAF	410	Building Leadership Skills	Introduces understanding and developing leadership skills, including an examination of leadership theories and models from multidisciplinary and crosscultural points of view, an assessment of the student's leadership capabilities, and practical applications to improve individual leadership capabilities.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	SB	
PAF	411	Leadership and Change	The leader's role in bringing about significant organizational and societal change with special attention to group and organizational behavior dynamics, establishing a vision, mobilizing and empowering individuals and groups, and assessing outcomes of the change process in a variety of settings.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	SB	
PAF	420	Public Leadership	Examines key concepts, models, and strategies for leading public and nonprofit organizations, emphasizing self-knowledge, skills, and abilities for effective leadership.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	460	Public Service Ethics	Role, values, and issues of public management in democratic governance, citizen participation, power structures, and professional codes of conduct.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	492	Honors Directed Study		Y	LEC	Y	CNV	College of Public Programs	School of Public Affairs	1-3		
PAF	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Public Affairs	1-6	L	Pre-requisites: Must be an Honors student
PAF	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-3		
PAF	501	Public Service Research I	Philosophy, scope, and methods; public service research design, values, and ethics.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Must have earned B or better or currently enrolled in PAF 401, POS 401, PSY 230 QBA 221, or SOC 390 AND course must be completed within 4 previous terms
PAF	502	Public Service Research II	Quantitative techniques including multivariate analysis, data analysis, decision making, and computer applications in public affairs.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 501 with C or better
PAF	503	Public Affairs	Development and context of American public administration and policy, role of administration in governance, and values and ethics in administration.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	504	Public Affairs Economics	Basics of public sector economics, microeconomic and macroeconomic concepts applied to public sector decisions and policies.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	505	Public Policy Analysis	Institutional and formal analysis of policy processes, decision making, and problem solving; values, ethics, and the uses of policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 504 with C or better
PAF	506	Public Budgeting and Finance	Legal, social, economic, political, institutional, and ethical foundations of governmental finance, budgets, and budgeting.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 504 completed with C or better or currently enrolled
PAF	507	Public Human Resource Management	Personnel systems, behavior and management of people in public organizations, collective behavior, unionism, conflict management, motivation, productivity, and ethics.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	508	Organization Behavior	Theory and application in the management of organizational behavior with emphasis on leadership and the public service.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	509	Public Affairs Capstone	Capstone application of core course knowledge, skills, and abilities required for public service.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: PAF 501, 502, 503, 504, 505, 506, 507 and 508 with C or better
PAF	520	Public Management	Management process in government and public agencies, with emphasis on the executive leadership within the public sector.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	522	Public Labor Relations	Rise of public unionism, managerial policy toward unionism, conflict resolution; impact of unionism on budgets, personnel policies, and public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	523	The City and County Manager	Manager's role and resources in the differing forms of administrative, legislative, and community sectors.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	525	Public Entrepreneurship	Explores entrepreneurship in the public sector from various angles, including small and large communities and nonprofits.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	529	Organization Change and Development	Explores the nature and management of change and development as a tool to achieve organizational goals; effecting planned change.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	530	Management of Urban Government	Administrative practices and behavior within the urban political administrative environment. Functional areas such as citizen participation, urban planning, urban transportation, and the conflicts between urban politics and administrative efficiency.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	531	Community Conflict Resolution	Interdisciplinary approach to understanding the dynamics of community conflict. Strategic considerations in policy design and advocacy; potential reaction to conflict. Relevant models and research findings generated by both case studies and comparative methods.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		

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PAF	534	Urban Infrastructure	Covers various types of infrastructure operated by local governments and the issues related to management of those various public assets.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	536	Urban Policy Making	Analyzes the opportunities and costs of influencing public policy and the roles of officials and bureaucracies in decision making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	540	Adv Policy Analysis	Emphasizes the structure of policy problems, forecasting policy alternatives, optimizing resources, and reducing uncertainty in policy making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 505 with C or better
PAF	541	Program Evaluation	Various methodologies available for the evaluation of public policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 501 with C or better
PAF	546	Environmental Policy and Management	Analyzes environmental policy and planning issues and principles related to the analysis and management of natural and urban/regional resources.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	547	Science, Technology and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Credit is allowed for only BIO 515, GLG 547, PAF 547 or SOS 516
PAF	548	Women/Politics/Public Policy	Explores how political philosophy, politics, and public policy affect and are affected by women.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	549	Diversity Issues and Public Policy	Examines public policy issues concerning or affecting women, black, Latino, Asian, and American Indian communities, as well as those groups' impact on the policy process.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	549	Diversity Issues and Public Policy	Examines public policy issues concerning or affecting women, black, Latino, Asian, and American Indian communities, as well as those groups' impact on the policy process.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	551	Computers in Administration	Experience in use of computer technology for public administration problem solving.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	562	Intergovernmental Relations	Evolution, growth, present status, and characteristics of the U.S. federal system of government. Federal-state relations, state-local relations, regionalism, councils of government, interstate cooperation, grants-in-aid, and revenue sharing.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	564	Political Economy	Classical and contemporary literature and historical development of governmental and economic arrangements, with special emphasis on the role of the state.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	570	Urban Economics and Public Finance	Examines microeconomics at the intermediate level, along with topics in urban microeconomics focusing on issues of urban finance and taxation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	571	Geographic Information Systems (GIS) and Analysis	Provides foundational information related to application of GIS technology to meet various needs within governmental operations, administration, and public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	572	Urban Demography	Focuses on basics of demographic analysis, including natality, migration, and mortality. Emphasizes use of demographic analysis for urban problem solving.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	573	Advanced Regression	Examines more advanced regression topics, such as limited dependent variable analysis, time-series analysis and forecasting techniques, and simultaneity.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 502 with C or better
PAF	574	Diversity, Ethics, and Leading Public Change	Focuses on leadership, ethics, and benefits and tensions of the multicultural city to develop leadership and multicultural competence.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	579	Public Policy Capstone	Integrative, client-based project course.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	L	
PAF	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Public Affairs	1.		
PAF	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		Pre-requisite: Doctoral student

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PAF	601	Seminar:Pol Analysis & Eval	Normative and conceptual issues of policy formulation, implementation, and evaluation; methods of policy analysis and evaluation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	602	Seminar: Foundations of Public Administration	Ethical, social, legal, and philosophical foundations of public administration.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	602	Seminar: Foundations of Public Administration	Ethical, social, legal, and philosophical foundations of public administration.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Must be enrolled in a doctoral-level plan.
PAF	603	Seminar: Organization and Behavior in the Public Sector	Structure, organization, conduct, and performance of public sector institutions in the administration of public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Doctoral student
PAF	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-15		
PAF	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Public Affairs	1.		
PAF	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Public Affairs	1-15		
PE	123	Tumbling		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of Kinesiology	0.5		
PGM	100	PGA/PGM Introduction	Introduces the golf professional training program. Career enhancement, rules of golf, tournament operations, and playing professional development programs. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	110	Player Development I	Introductory instruction on golf game improvement to assist PGM students in preparation for Players Ability Test. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	111	Player Development II	Instruction to assist PGM students in preparation for Players Ability Test with emphasis on full swing mechanics and practice plan development. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	112	Player Development III	Emphasizes classroom and hands-on applications of full swing analysis and short game strategies. Special focus on golf course management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	113	Player Development IV	Emphasizes classroom and hands-on applications of full swing analysis and short game strategies. Special focus on golf course management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	114	Player Development V	Introductory instruction on golf game improvement to assist PGM students in preparation for Player Ability Test.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	120	Golf for Business and Life	Introduces nongolfing students to the game of golf. For beginners.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	130	PGA/PGM Level 1	Focuses on golf professional training program and the completion of the PGA Level One experience kit. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	150	Teaching Golf I	Introduces golf instruction. Focus on fundamentals of golf swing and teaching techniques. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	166	Turf Equipment Management	Introduces turf equipment used on golf courses. Instruction in maintenance, adjustment, and safety issues.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
PGM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGM	200	PGA/PGM Level 2	Focuses on golf professional training program and the completion of the PGA Level Two experience kit. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	250	Teaching Golf II	Communicating with student golfers, swing evaluation, key factors club fitting, developing a successful teaching practice.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGM	300	PGA/PGM Level 3	Business planning and operations, business communications related to business of golf. Completion of the PGA Level Three experience kit. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	350	Teaching Golf III	Teaching swing concepts. Developing a teaching philosophy, analyzing flawed swing mechanics through video and swing analysis software.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		

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PGM	363	Landscape and Turf Irrigation	Design, management, and maintenance of landscape and turf irrigation systems. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	4.		
PGM	367	Landscape Plants and Design	Identification, design, and use of plants in urban landscapes. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	4.		
PGM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGM	400	GTPP IV	Food and beverage control, supervision and delegation of golf facilities. Completion of the PGA Level Three experience kit.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	463	Golf and Sports Turf Management	Selection, establishment, and maintenance of turf grasses bred specifically for golf and sports facilities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
PGM	466	Integrated Pest Control	Management of pests affecting golf turf and landscape plants. Structural Pest Control Board sprayer certification preparation offered during the semester.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
PGM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	222	Human Sexual Behavior	Patterns of sexual behavior, including variations and deviations; theories of sexual attraction, sex differences, and sexual dysfunction and treatment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	304	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L or SB	
PGS	430-E	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned earned C or better or currently enrolled in MGT 301 or earned C or better or currently enrolled in PGS 101
PGS	452	Applied Social Psychology	Studies applications of social psychological theory and concepts in natural settings; research design and data analysis. Lecture, lab-type activities.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	
PGS	453	Organizational Behavior	Surveys psychological theory and research as applied to the behavior of individuals in organizational settings.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisite: Must have earned C or better or currently enrolled in PGS 350
PGS	458	Group Dynamics	Theories and methods of group leadership, group effectiveness, communication within groups, and relations between groups and individual members.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PGS	471	Psychological Testing	Methods and theory of psychological testing; various types of psychological tests; consideration of ethical, social, and legal aspects of testing.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	
PGS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
PGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PGS	222	Human Sexual Behavior	Patterns of sexual behavior, including variations and deviations; theories of sexual attraction, sex differences, and sexual dysfunction and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	244	Introduction to Directed Child Study	Developmental theories and methods of social interaction with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PGS	270	Psychology of Adjustment	Principles of mental health, adjustment, conflict, stress, and coping processes derived from clinical and experimental research. Intended for nonmajors; cannot be used for major credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	

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PGS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PGS	304	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed one of the following courses with a grade of C or greater or be currently enrolled: JUS 302, MAT 119, MAT 210, MAT 242, MAT 243, MAT 270, MAT 271, POS 401, PSY 230, QBA 221, SOC 390, SOC 395 or STP 226
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	344	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3-4		Pre-requisites: CDE 232, ECD 314 or PGS 341 with C or better or currently enrolled; PSY 290 with C or better or currently enrolled
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PGS 101 with a grade of C or greater or be currently enrolled
PGS	351	Honors Social Psychology	Critical analysis of human social behavior for honors students; topics include stereotyping, social influence, attraction, aggression, helping, groups, and attitudes. Open only to students without previous credit for PGS 350.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	
PGS	365	Community Psychology	Mental health and psychological well-being in the community, emphasizing current issues and related research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 315 (or 350 or 351) with C or better; PSY 290 with C or better
PGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	399	Supervised Research	Experience within the context of current faculty research projects. Student is assigned responsibility depending on qualifications. Y grade only. May be repeated for a total of 6 hours.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		
PGS	414	History of Psychology	Historical development of psychology from its philosophical beginnings to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: PSY 290 with C or better
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed PGS 341 with a grade of C or greater or be currently enrolled
PGS	430	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with a C or better or currently enrolled
PGS	441	Cognitive Development	Experimental and theoretical literature in child development and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed PGS 341 with a grade of C or greater within the past 16 terms (4 years) or be currently enrolled
PGS	443	Abnormal Child Psychology	Covers the major disorders of childhood and adolescence (e.g., autism, hyperactivity, phobias, and delinquency), including cause, diagnosis, treatment, and prevention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed one of the following: PGS 315, 341, 350 or 351 with a grade of C or greater or be currently enrolled; Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	444	Adolescent Psychology and Psychopathology	Advanced-level survey of normal adolescent psychological development and psychological disorders of this age period.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 341 with C or better; PSY 290 with C or better
PGS	445	Child Language and Drawing	Language acquisition and developmental changes in drawing, considered in the context of cognitive developmental stages. Children's representation and communication of knowledge through language and drawing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PGS 341 with a grade of C or greater within the past 16 terms (4 years) or be currently enrolled
PGS	446	Social Development	Discusses theory, research, and issues regarding social development. Topics may include formation of attachments, prosocial development, and gender-role development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PGS 341 with a grade of C or greater or be currently enrolled
PGS	451	Stereotyping, Prejudice, and Discrimination	Critical investigation of the processes underlying, and the factors contributing to, stereotyping, prejudice, and discrimination.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed either PGS 350 or 351 with a grade of C or greater or be currently enrolled
PGS	452	Applied Social Psychology	Studies applications of social psychological theory and concepts in natural settings; research design and data analysis. Lecture, lab-type activities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 350 or 351 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	458	Group Dynamics	Theories and methods of group leadership, group effectiveness, communication within groups, and relations between groups and individual members.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PGS 350 or 351 with a grade of C or greater within the past 16 terms (4 years) or be currently enrolled
PGS	461	Interpersonal Influence	Principles and procedures that affect the process of social influence; consideration of attitudinal, compliance-inducing, and perceptual influences.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PSY 290 with C or better; PGS 350 or 351 with C or better
PGS	462	Health Psychology	Contributions of psychology to health promotion and illness prevention, adaptation to acute and chronic illness, and to the healthcare system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	464	Minority Issues in Psychology	Psychological issues relating to the diversity of human cultural experiences among ethnic minorities in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	465	Psychology of Stress and Coping	Readings in theory and research in the area of stress and coping. Lecture, discussion, class presentations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 315, 350 or 351 with C or better; PSY 290 with C or better
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed MUE 381 or PSY 290 with a grade of C or greater or be currently enrolled
PGS	467	Psychology of Magical Beliefs	Psychological nature and bases of magical beliefs and their impact on health behaviors, eating practices, and interpersonal relations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PGS 315, PGS 466 or PSY 290 with a grade of C or greater or be currently enrolled

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PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	471	Psychological Testing	Methods and theory of psychological testing; various types of psychological tests; consideration of ethical, social, and legal aspects of testing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	472	Clinical Psychology	Clinical psychology as a science and profession. Historical development, methods of interviewing, assessment, and therapeutic intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 443 or 466 with C or better
PGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: PSY 290 with C or better
PGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-7		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-3		
PGS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PGS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		Pre-requisites: Must be a Graduate student, either degree seeking or non degree seeking
PGS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: Must be a Graduate student, either degree seeking or non degree seeking
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	250	Psychology and Society	Addresses how social and behavioral science theory and research are used to understand behavior related to various social issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	304-W	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: PSY 230 with a C or better or currently enrolled; ENG 102 ,105 or 108 with a C or better or currently enrolled; MAT 119 with a D or better or currently enrolled
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with a C or better or currently enrolled
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	344-W	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled; PGS 101 and PGS 341 with a C or better or currently enrolled
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with a C or better or currently enrolled
PGS	370	Interpersonal Relationships	Development of personal skills for competent functioning in interpersonal relationships across multiple social contexts. Principles of mental health adjustment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	385	Psychology of Gender	Examines, from a psychological perspective, the similarities and differences in beliefs, attitudes, and behaviors of women and men.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
PGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

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PGS	399	Supervised Research	Experience within the context of current faculty research projects. Student is assigned responsibility depending on qualifications. Y grade only. May be repeated for a total of 6 hours.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-or Co-requisites: PSY 230 (with a C or better if completed)
PGS	427-W	Psychology of Aging	Behavioral, experiential, and emotional phenomena associated with aging. Analysis of retained abilities and resources as well as losses and stresses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	430-W	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 350 with a C or better or currently enrolled or MGT 301 with a D or better or currently enrolled
PGS	443-W	Abnormal Child Psychology	Covers the major disorders of childhood and adolescence (e.g., autism, hyperactivity, phobias, and delinquency), including cause, diagnosis, treatment, and prevention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	Pre-requisites: PGS 315, 341 or 350 with C or better or currently enrolled; PSY 230 and PSY 290 with a C or better or currently enrolled; ENG 102, 105 or 108 with a C or better or currently enrolled
PGS	444-W	Adolescent Psychology and Psychopathology	Advanced-level survey of normal adolescent psychological development and psychological disorders of this age period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PGS 341, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	446-W	Social Development	Discusses theory, research, and issues regarding social development. Topics may include formation of attachments, prosocial development, and gender-role development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 341, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	453	Organizational Behavior	Surveys psychological theory and research as applied to the behavior of individuals in organizational settings.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 and PGS 350 with a C or better or currently enrolled
PGS	462	Health Psychology	Contributions of psychology to health promotion and illness prevention, adaptation to acute and chronic illness, and to the healthcare system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	465-W	Psychology of Stress and Coping	Readings in theory and research in the area of stress and coping. Lecture, discussion, class presentations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PSY 230 and PGS 290 with a C or better or currently enrolled; PGS 315 or PGS 350 with a C or better or currently enrolled
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 and PSY 230 completed with a C or better; PSY 290 with a C or better or currently enrolled
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with a C or better or currently enrolled
PGS	472-W	Clinical Psychology	Clinical psychology as a science and profession. Historical development, methods of interviewing, assessment, and therapeutic intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 466 with a C or better or currently enrolled
PGS	473	Psychology and Politics of Child Maltreatment	Examines psychological literature on child maltreatment in the context of development. Explores interactions between professionals responding to maltreatment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with C or better; PGS 341 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	480	Cross-Cultural Social Psychology	Focuses on patterns of social behavior in individualistic and collectivistic cultures. Includes multidisciplinary research using qualitative and quantitative methodologies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: PGS 101 with C or better; PGS 350 with a C or better
PGS	482	Social Influence and Consumer Behavior	Discusses social influence principles, emphasizing strategies employed by professionals that affect consumer behavior. Analyzes consumer defenses against manipulations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 350 with C or better
PGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
PGS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
PGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
PGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-requisites: PGS 399 with a C or better or currently enrolled
PGS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		

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PGS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
PGV	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	120	Introduction to Medical and Bioethics	Philosophical examination of moral problems that arise in medicine and biology, e.g., end-of-life, reproduction, and patient's rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	300	Philosophical Argument and Exposition	Develops techniques of philosophical argument and exposition. Frequent written exercises. Course content may vary with instructor.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L	
PHI	301	History of Ancient Philosophy	History of Western philosophy from its beginnings through the Hellenistic period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
PHI	302	History of Modern Philosophy	History of Western philosophy from the Renaissance through Kant.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
PHI	304	Existentialism	Covers such topics as absurdity, authenticity, the meaning of life and death, responsibility, and subjectivity. May include readings in phenomenology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	305	Ethical Theory	Current theories about the nature of morality (metaethics) and about what is right and wrong (normative ethics).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	307	Philosophy of Law	Nature and source of law and its relation to morality. Legal rights, legal enforcement of morals, civil disobedience, liability and responsibility, punishment, judicial reasoning, justice, property, and differences between theories of natural and positive law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	308	Philosophy of Art	Central problems in philosophy of art, e.g., the nature of a work of art, modern and traditional theories of art, aesthetic perception and experience, and objectivity and relativity in art criticism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	309	Social and Political Philosophy	Alternative principles and methods relevant to problems of human association and conflict; discusses justice and power, freedom and equality, and autonomy and order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	310	Environmental Ethics	Examines a full range of philosophical positions pertaining to our moral relationship to the natural world; anthropocentrism, individualism, biocentrism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	311	Philosophy in Literature	Selected works of literature introducing philosophical problems such as the nature of moral goodness and people's relation to the world and other people.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	312	Theory of Knowledge	Nature, sources, and limits of human knowledge. Topics may include truth, a priori knowledge, empirical knowledge, perception, induction, and skepticism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHI	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	Credit is allowed for only HPS 314 or PHI 314.
PHI	315	Philosophy of Language	Problems pertaining to the nature of language, including meaning, reference, truth, definition, analyticity, translatability, synonymy, and contributions of contemporary linguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	316	Metaphysics	Problems pertaining to the nature of reality. Topics may include nature of person, minds, substance, universals, space, time, causation, and modality.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	317	Philosophy of Mind	Nature of consciousness. Common sense view of mind, behaviorism, materialism, dualism, functionalism, self-knowledge, and knowledge of other minds.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	318	Philosophy of Religion	Classical arguments for the existence of God. Argument from evil against the existence of God. Justification of religious belief.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	319	Philosophy of Computing	Philosophical problems surrounding the theory of computation. Turing machines, mind and AI, neural network computing, ethics, and epistemology of computing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	CS	
PHI	320	Bioethics	Critical examination of moral questions arising in biomedical contexts, particularly due to new technologies and scientific discoveries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	325	Philosophy of Social Science	Philosophical problems surrounding the aims, structure, and methods of the social sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU or SB	
PHI	333	Introduction to Symbolic Logic	Symbolic techniques, emphasizing deductions and proofs in the propositional and 1st-order predicate calculi.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	335	History of Ethics	Major works of moral philosophy, both ancient and modern, such as those by Plato, Aristotle, Hobbes, Hume, Kant, and Mill.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	401	Rationalism	Examines classical philosophical rationalism, as in Descartes, Spinoza, Malebranche, or Leibniz. Contemporary rationalist thought may also be examined.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	402	Empiricism	Examines representatives of either classical or contemporary philosophical empiricism, e.g., Bacon, Hobbes, Locke, Butler, Berkeley, Reid, Hume, Mill, Carnap, and Ayer.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	403	Contemporary Analytic Philosophy	Aims and methods of such 20th-century philosophers as Frege, Moore, Russell, Wittgenstein, Carnap, Ayer, Wisdom, Ryle, Austin, Strawson, Quine, and Sellars, with application to metaphysics and epistemology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	413	Advanced Symbolic Logic	Properties of formal systems axiomatizing propositional and 1st-order predicate logic. May also include modal logic, number theory, and limits of logicism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	420	Topics in Philosophy	Course descriptions on file in department. May be repeated for credit.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	428	Immunophilosophy	Integrates immunology and philosophy, including psychoneuroimmunology and the mind-body problem, and immunologic/psychologic perspectives on self and self-identity.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		Pre-requisites: Must be an Honors student
PHI	493	Honors Thesis		N	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6	L	Pre-requisites: Must be an Honors student
PHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	497	Honors Colloquium		Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		
PHI	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-7		
PHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		
PHI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		

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PHI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisites: Masters or Doctoral Philosophy student.
PHI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		
PHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		
PHI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		
PHI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 101, 105 or 107 with C or better
PHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	306-W	Applied Ethics	Uses philosophical techniques to elucidate such vital moral issues as sexual perversion, civil disobedience, abortion, punishment, violence and pacifism, suicide, and euthanasia.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	318	Philosophy of Religion	Classical arguments for the existence of God. Argument from evil against the existence of God. Justification of religious belief.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	324	Existential Ethics	Ethical aspects of theistic and atheistic accounts of existentialist philosophy. Freedom and responsibility and their significance in human experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	340	Bioethics	Philosophical exploration of ethical issues in healthcare delivery and the life sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	360	Business and Professional Ethics	Examines moral theories applied to cases of corporate responsibility, property rights, environment, fairness, profit, employee rights, and responsibilities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	406	Moral Dilemmas	Philosophical analysis of moral dilemmas arising in professional and public settings. Ethical decision making in business, educational, human service, and scientific communities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: Must have completed ENG 101, or 105 with a grade of C or greater, or be currently enrolled in ENG 101, or 105
PHI	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 101 or 105 with C or better

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PHI	408	Feminist Ethics	Philosophical exploration of the theoretical and practical aspects of ethical issues affecting women from diverse feminist viewpoints.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	409	Eco-Community Ethics	Traces human interaction with the Earth from hunters and gatherers to the present day, examining groups who have lived within ecological constraints and limits.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	120	Introduction to Medical and Bioethics	Philosophical examination of moral problems that arise in medicine and biology, e.g., end-of-life, reproduction, and patient's rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Credit is allowed for only HPS 314 or PHI 314.
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PHI	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 101 or 105 with C or better
PHL	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PHL	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHS	110	Fundamentals of Physical Science	One-semester survey of the principles of physics and chemistry. Presumes understanding of elementary algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHS	208	Patterns in Nature	Project-oriented science course with computer training to develop critical thinking and technical skills for student-oriented K-12 science lessons. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	1-6		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in physical science and physics. Requires weekly reflective reading and writing. May be repeated for credit. Fee.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	3.	C	
PHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6	L	Pre-requisites: Must be an Honors student
PHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-7		
PHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-3		
PHS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	505	Energy and the Environment	Current problems in energy resources, production, consumption, and conservation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	530	Methods of Physics Teaching I	Inquiry approach to high school physics teaching.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	531	Methods of Physics Teaching II	Extension of modeling techniques introduced in PHY 580.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	534	Methods of Teaching Physical Science I, II, III	Design of curriculum and conduct of instruction for physical science courses.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	540	Integrated Physics and Chemistry	Collaborative inquiry methods for teaching and coordinating physics and chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	542	Integrated Mathematics and Physics	Mathematical models and modeling as an integrating theme for secondary mathematics and physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	550	Physics and Astronomy	Astronomy curricula and projects for secondary school, with emphasis on the role of physics in astronomy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	556	Astrophysics	Structure and evolution of stars, galaxies, and the universe. For secondary school teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	560	Matter and Light	Interactions of light with matter. Lasers and spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	564	Light and Electron Optics	Principles and practice of electron-optical instruments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	570	Spacetime Physics	Special and general theories of relativity with implications for space and time travel.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	581	Structure of Matter and its Properties	Models of matter and its properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-15		
PHS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-15		
PHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	Pre-requisites: PHY 111 with D or better or currently enrolled
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre-or Co-requisite: PHY 111 (with D or better if completed)
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre- or Co-requisite: PHY 112 (with D or better if completed)
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	122	University Physics Laboratory I	Lab accompanying PHY 121. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	132	University Physics Laboratory II	Lab accompanying PHY 131. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit. fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
PHY	321	Vector Mechanics and Vibration	Vector-based formulation of Newtonian mechanics of particles and rigid bodies, including oscillatory systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
PHY	331	Principles of Modern Electromagnetism	Studies the unified description of electromagnetic phenomena provided by Maxwell's equations in differential and integral form.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHY	105	Basic Physics	One-semester survey of the principles of physics. Primarily for students who intend to take PHY 121, 131 but have not taken high school physics.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: PHY 111 with D or better or currently enrolled
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre- or Co-requisite: PHY 111 (with D or better if completed)
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre- or Co-requisite: PHY 112 (with D or better if completed)
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: MAT 265, MAT 270 or MAT 290 with D or better or currently enrolled
PHY	122	University Physics Laboratory I	Lab accompanying PHY 121. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre- or Co-requisite: PHY 121 (with D or better if completed)
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: MAT 271 or MAT 291 with D or better or currently enrolled; PHY 121 with D or better or currently enrolled; Co-requisite: MAT 272
PHY	132	University Physics Laboratory II	Lab accompanying PHY 131. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit. fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre or Co-requisite: PHY 131 (with D or better if completed)
PHY	150	Physics I	Introductory physics for majors. Kinematics, Newton's Laws, basic forces, energy, momentum, special relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 270 or MAT 290 with D or better or currently enrolled
PHY	151	Physics II	Continuation of PHY 150. Electromagnetic fields; Ampere's and Faraday's Laws; Maxwell's equations; basic circuit elements. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 271 or MAT 291 with D or better or currently enrolled; PHY 121 and PHY 122 with D or better or currently enrolled or PHY 150 with D or better or currently enrolled
PHY	190	Seminar: Physics as a Curriculum and a Profession	Seminar for new Physics majors. Instruction and information on curriculum, departmental functions, and professional preparation. Weekly meetings and excursions. Pass/fail grading.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of Physics	1.		
PHY	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	201	Mathematical Methods in Physics I	Differential equations, linear equations, vectors, matrices, Fourier series, and numerical methods. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	CS	
PHY	241	University Physics III	Thermodynamics, kinetic theory, physical and wave optics, relativity, photons, matter waves, atomic physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 131
PHY	252	Physics III	Continuation of PHY 151. Wave physics, oscillations, harmonic systems, physical optics, thermodynamics, kinetic theory. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 272 with D or better or currently enrolled; PHY 131 and PHY 132 with D or better or currently enrolled or PHY 151 with D or better or currently enrolled; Co-requisite: PHY 201
PHY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHY	302	Mathematical Methods in Physics II	Continuation of PHY 201. Vector calculus, complex variables, partial differential equations, special functions, numerical methods. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
PHY	310	Classical Particles, Fields, and Matter I	Particle kinematics, mechanics, conservation laws, particle motion in force fields, dynamics of two-body systems, reference frames, rigid body motion, relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	311	Classical Particles, Fields, and Matter II	Electrostatic and gravitational fields, Poisson and Laplace equations, dielectric materials, magnetic fields and materials, magnetic induction, Faraday's Law. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	314	Quantum Physics I	Photons, models of the atom, wave properties of matter, introduction to wave mechanics, 1-D systems in quantum mechanics. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	315	Quantum Physics II	General principles of quantum mechanics, 3-D problems, approximation methods, spin, introduction to many-particle systems. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	321	Vector Mechanics and Vibration	Vector-based formulation of Newtonian mechanics of particles and rigid bodies, including oscillatory systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	331	Principles of Modern Electromagnetism	Studies the unified description of electromagnetic phenomena provided by Maxwell's equations in differential and integral form.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	333	Electronic Circuits and Measurements	Basic principles of electronic circuit analysis and measurement techniques using modern instrumentation and computer-aided analysis of data. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	334	Advanced Laboratory I	Selected experiments from contemporary physics. Emphasizes modern instrumentation, computer-assisted acquisition and analysis of data, and report form writing. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
PHY	361	Introductory Modern Physics	Special relativity and introductory quantum theory with applications drawn from atomic, nuclear, and solid-state physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	412	Classical Particles, Fields, and Matter III	Electromagnetic fields of moving charges, Maxwell's equations, harmonic phenomena, oscillations, waves, electromagnetic radiation, covariant electromagnetism, introduction to general relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	416	Quantum Physics III	Introduces the quantum theory of atoms, molecules, solids and nuclei, Dirac's equation. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	420	Research Paper	Scientific report writing. Culminates in a paper based on library or lab research or both. Taken in conjunction with other courses as approved.	N	RSC	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	L	
PHY	441	Statistical and Thermal Physics	Statistical and experimental basis of heat, temperature, and entropy. Mechanical and statistical basis of the laws of thermodynamics. Applies macroscopic thermodynamics. Phase equilibrium.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	452	Physical Optics	Principles of reflection, refraction, diffraction. Additional topics from contemporary optics may include Fourier transform spectroscopy, linear systems theory, holography.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	462	Subatomic Physics	Nuclear properties, models, decays and reactions; fundamental forces, field theories, symmetry principles; hadrons, quarks, and leptons; the Standard Model.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	465	Advanced Laboratory II	Continuation of PHY 334. Students may substitute a short laboratory research project for one of the elective experiments of the course, in consultation with a faculty sponsor and the course instructor. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	466	Advanced Laboratory III	Continuation of PHY 465. fee	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1-3		
PHY	480	Methods of Teaching Physics	Evaluates various approaches to the teaching of high school physics. Preparation of demonstrations and experiments. Organization of a lab. Designed for secondary school physics teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	481	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 481 or 511.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	482	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 482 or 512.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6		Pre-requisites: Must be an Honors student
PHY	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6	L	Pre-requisites: Must be an Honors student
PHY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	495	Project Research	Supervised project in physics or astrophysics. May be repeated for credit.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		
PHY	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-7		
PHY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-3		
PHY	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	501	Methods of Computational and Theoretical Physics	Analytic and computational approaches to problems in classical and quantum physics. Topics may include numerical analysis, molecular dynamics, Monte Carlo simulations, density functional theory, high performance computing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	502	Methods of Theoretical Physics	Continuation of PHY 501.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	511	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 511 or 481.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	512	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	521	Classical and Continuum Mechanics	Variational principles, Lagrange's and Hamilton's equations, canonical transformations, Hamilton-Jacobi theory, introduction to chaos and nonlinear dynamics, fundamentals of elasticity theory and fluid mechanics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	523	Relativity	Special and general theories of relativity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	531	Electrodynamics	Special theory of relativity, covariant formulation of electromagnetic interactions, Maxwell's equations, electrostatics and magnetostatics, dielectric media, inhomogeneous wave equations, Lienard-Wiechert potentials, interactions of charged particles and electromagnetic waves, scattering and diffraction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	532	Advanced Topics in Electrodynamics	Electromagnetism of dielectric media, magnetic media, and superconductors; introduction to magnetohydrodynamics, laser physics, and nonlinear optics; additional special topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	541	Statistical Physics	Postulates of statistical mechanics, equilibrium ensembles, Bose and Fermi statistics, density matrix, modern theory of phase transitions, fluctuations, and linear response theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	542	Topics in Biophysics	Overview of modern biology, length scales: emphasizes molecular and cellular biology. Nonequilibrium systems: compare and contrast stochastic processes in biological and physical systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	551	X-Ray and Electron Diffraction	Fresnel and Fraunhofer diffraction in integral formulation; diffraction of x rays and neutrons by crystal lattices; structures of solids, including crystal structure analysis; theory and techniques of electron microscopy/diffraction of crystalline/noncrystalline specimens.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		If you have credit for MSE 552, or NAN 552, or SEM 552, you may not enroll in PHY 552
PHY	553	Electron Microscopy Laboratory I	Lab support for PHY 552.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent beam diffraction, and electron holography.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	555	Electron Microscopy Laboratory II	Lab support for PHY 554.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	561	Nuclear Physics	Properties of nuclei, conservation laws, internucleon forces, nuclear structure models, reactions and decays, quark model with applications to nuclei.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	562	Nuclear Physics	Continuation of PHY 561.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	567	Relativistic Quantum Mechanics and Field Theory	Relativistic quantum mechanics and introduction to the quantum field theory of scalar, spinor, and electromagnetic fields. QED through renormalization theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	568	Particle Physics Phenomenology	Hadron physics, internal symmetry groups, weak interactions, lepton and quark phenomenology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	569	The Standard Model and Beyond	Introduces and applies the standard model of strong and electroweak interactions. Special topics include recent developments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	571	Quantum Physics	Review modern physics, chemistry, math. Differential equation, operator, matrix formulations. Free particle, bound state problems. Examples from physics, chemistry and nanoscience.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only NAN 571 or PHY 571
PHY	576	Quantum Theory	Operator methods in quantum mechanics, time-independent perturbation theory, variational methods, angular momentum and group representation theory, identical particles; quantum dynamics, including time-ordered operators, time-dependent perturbation theory, and Fermi's golden rule.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

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PHY	577	Advanced Quantum Theory	Scattering in three dimensions, second quantization of bosons and fermions, quantization of electromagnetism, addition of angular momenta, electronic structure of atoms and molecules, introduction to relativistic quantum mechanics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	581	Quantum Theory of Solids I	Band structure models: pseudopotentials, density functional theory; optical and magnetic response; elementary excitations; transport theory, electron-photon interactions and superconductivity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	582	Quantum Theory of Solids II	Continuation of PHY 581: broken symmetry; phase transitions; disorder, topological defects; nano-structures topics; soft condensed matter and current research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	587	Quantum Optics	Quantization of the electromagnetic field. Quantum theory of coherence, photon counting, photon states, lasers, density operators, and atomic Raman scattering.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	588	Quantum Optics	Continuation of PHY 587.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-15		
PHY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-15		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	Pre-requisites: must have completed PHY 111 with a grade of C or greater, or be currently enrolled in PHY 111
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre-requisites: Must be co-enrolled in PHY 111
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre-requisites: must have taken PHY 112 with a C or greater, or be currently enrolled; or be co-enrolled in PHY 112
PHY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	SQ	
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	SQ	
PLA	161	Graphic Communication	Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be Pre-Landscape Architecture student
PLA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
PLA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	222	Computers in Landscape Architecture	Computer applications in landscape architecture including CAD, GIS, graphics, and visualization.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	CS	
PLA	240	Landscape Survey Techniques	Develops landscape survey skills including aerial photography, satellite images, geo-referencing, landscape surveys, and field data collection.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	261	Landscape Architecture I	Landscape communication: communication techniques for urban planning and landscape architecture. Credit is allowed only for PLA 261 or PUP 261.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		
PLA	262	Landscape Architecture II	Reading the landscape: observing, experiencing, and graphically expressing the symbolic and aesthetic significance of natural landscapes.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		
PLA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	344	Landscape Construction II	Characteristics of materials and methods used in landscape architectural construction. Studio.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	345	Professional Practice Seminar	Landscape architecture practice including contracts, project and office management, liability, licensing, and professional development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	412	Landscape Ecology and Planning	Reviews the evolution of landscape ecology and landscape planning and examines use and value.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	413	Southwest Landscape Interpretation	Explores methods and implications of landscape interpretation within the American Southwest.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	420	Theory of Urban Design	Analyzes the visual and cultural aspects of urban design. Theories and techniques applied to selected study models.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLA	446	Landscape Construction III	Landscape construction focusing on low-technology, biotechnical, regional, and experimental techniques or systems. Lecture, studio.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	462	Landscape Arch VI	Advanced landscape architecture: integrative capstone studio with multifaceted design problems. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		Pre-requisites: Must be Landscape Architecture BSLA student; Must have completed PLA 461 with a grade of C or greater or be currently enrolled
PLA	485	International Field Studies in Planning	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	N	FLD	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12	G	
PLA	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
PLA	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
PLA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
PLA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
PLA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLB	414	Plant Pathology	Identification and control of biotic and abiotic factors that cause common disease problems to plants.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	L	
PLB	108	Concepts in Plant Biology	Introduces concepts of plant biology that are of human relevance using commercially important, edible, and medicinal plants as examples. Not for majors in the biological sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
PLB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	200	Biology of Plants	Analyzes the structure/function interaction for plant cells and tissues and properties that emerge in whole plants. Both PLB 200 and PLB 201 must be taken together to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SQ	
PLB	201	Biology of Plants Laboratory	Lab/field experiments to teach techniques and protocols of the scientific process; reinforces concepts from lecture by asking questions and solving problems. Both PLB 200 and PLB 201 must be taken together to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	SQ	
PLB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	300	Comparative Plant Diversity	Surveys major plant groups and other photosynthetic organisms. Emphasizes comparative data analysis, evolutionary inference, and phylogenetic methods. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L or SG	
PLB	302	Plants and Civilization	Plants and plant products used by people throughout the world. Cultivation, processing, and uses in modern life (beverages, fibers, foods, medicinals, and perfumes).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	304	Biology of Algae and Fungi	Ecology, economics, and evolutionary diversity of the algae and fungi. Traditional and modern biotechnological uses.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		

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PLB	305	Desert Annuals and Cacti	Adaptive biology of select plants. Analyzes diverse traits permitting survival in deserts: reproduction, structure, and physiology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	306	Plant Anatomy	Development and mature structure of tissues of vascular plants; patterns and modifications of the leaf, stem, root, and flower.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	308	Plant Physiology	Concepts of plant function: carbon metabolism, energy acquisition, regulation of growth and development, stress responses, and water and nutrient uptake.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	310	The Flora of Arizona	Principles of taxonomy; identification of Arizona plants. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	320	Environmental Science (Nonmajor)	Environmental and biological concepts used to understand ecological systems with specific references to problems caused by humans. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	G	
PLB	322	Environmental Science (Major)	Nature of environmental and biological interaction: historical and modern examples, regional and global issues. Participation in environmental problem-solving activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	350	Applied Genetics	Introduces molecular genetics with emphasis on application of genetics in solving biological questions and engineering organisms in biotechnology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	400	Lichenology	Chemistry, ecology, physiology, and taxonomy of lichens.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	401	Mycology	Fungal morphology and systematics with an introduction to fungal cell biology, ecology, economic significance, and growth and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in plant biology; requires weekly reflective reading and writing. Fee.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	
PLB	404	Phycology	Algae (both fresh water and marine forms), emphasizing field collection and identification of local representatives. Morphological, ecological, and economic aspects of the algae. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	407	Plant Fossils and Evolution	Broad survey of plant life of the past, including the structure of plant fossils, their geologic ranges, geographic distribution, and paleoenvironment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	410	Angiosperm Taxonomy	Principles underlying angiosperm phylogeny.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	411	Trees and Shrubs of Arizona	Identification of woody plants from desert, chaparral, and forest habitats in Arizona. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	414	Plant Pathology	Identification and control of biotic and abiotic factors that cause common disease problems to plants.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
PLB	416	Medical Botany	Explores plants affecting human health: modern- and folk-usage medicinal plants. Quality control, clinical evidence, plant chemistry, and ethnopharmacology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	420	Plant Ecology: Organisms and Populations	Factors and controls on the physiological ecology and organization of plants and plant populations using empirical and theoretical approaches. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	421	Plant Ecology: Communities and Ecosystems	Plant community organization, field sampling techniques, and the structure and function of terrestrial ecosystems emphasizing the role of vegetation. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	422	Plant Geography	Plant communities of the world and their interpretation, emphasizing North American plant associations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	430	Statistical Analyses in Environmental Science	ANOVAS, 1-way classification of factorial and partially hierarchic designs; introductory multivariate statistics. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	
PLB	432	Computer Applications in Biology	Computer analysis techniques in biology emphasizing data entry, management and analysis, and graphic portrayal. Employs mainframe and microcomputers. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	
PLB	434	Landscape Ecological Analysis and Modeling	Technical methods of landscape ecological analyses. Includes mathematical and statistical examination and modeling of landscape ecological patterns and processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	440	Photobiology	Principles underlying the effects of light on growth, development, and behavior of plants, animals, and microorganisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	444	Plant Growth and Development	Molecular basis of development, role of signal transduction pathways/gene regulation in control of organ formation, pollination, germination, and growth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	492	Honors Directed Study		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors Student
PLB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
PLB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
PLB	502	Perspectives in Plant Biology	Introduces major areas of research within the department with the goal of broadening knowledge to enable multidisciplinary research and communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	525	Microclimate Methods	Techniques to measure and quantify microclimate and mass transfer. Supporting principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	530	Introduction to Structural and Molecular Biology	Structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	540	Plant Biochemistry	Structure/function relationships of molecules, emphasizing processes unique to plants: carbon fixation, synthesis of storage products, pigments, and secondary metabolites.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	550	Plant Molecular Biology	Biochemistry and molecular biology of plant organelles, including protein targeting, plant viruses, and molecular designs for plant improvements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
PLB	552	Plant Genetic Engineering	Plant transformation, utilization of transgenic plants, transient gene expression assays, and applications of plant genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	553	Plant Genetic Engineering Laboratory	Plant transformation, utilization of transgenic plants, transient gene expression assays, and applications of plant genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
PLB	554	Plant Biotechnology	Aseptic, clonal propagation of plants and in vitro culture of cells, organs, and tissues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	558	Molecular Mechanisms of Photosynthesis	Structure and function of photosynthetic complexes; mechanism of energy conversion in plants, bacteria, and model systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
PLB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
PLB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
PLB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
PLC	101	Elementary Polish	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
PLC	102	Elementary Polish	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: PLC 101 with D or better or currently enrolled
PLC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
PLC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	201	Intermediate Polish	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
PLC	202	Intermediate Polish	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: PLC 201 with D
PLC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	11-12		
PLC	492	Honors Directed Study		N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
PLC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
PLC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
POL	101	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POL 110 or 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	160	Global Politics	The nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas. Credit is allowed for only POL 160 or 360.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Students may not enroll in POL 160 if they have received a D or better in POS 160, POS 360, or POL 360.
POL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POL	247	Introduction to Latin American Politics	General introduction to the politics and socioeconomic structures of Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		

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POL	310	American National Government: Ideas and Institutions	Historical, analytic context of constitutionalism and citizenship vis-à-vis social, economic, and political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POL 310 or 110.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	Students may not sign up for POL 310, if they have received a D or better in POL 110, or POS 110
POL	313	The Congress	The modern American Congress: its role, power and interrelationship in the American political system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	314	The American Presidency	Office, role, and power of the American presidency in the American political system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	320	Latino Politics	Examines contemporary political issues in the diverse Latino community.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
POL	331	Public Opinion	Examines U.S. public opinion, the diversity of its cultural sources, and political influence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	336	Electoral Behavior	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	340	Political Theory	Surveys ancient, modern, and contemporary political theorists and ideas in European and American contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU or SB	
POL	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	360	World Politics Theory	Theoretical examination of one or more aspects of international politics, e.g., foreign policy, negotiations, alliances, crises, wars, and international systems. Credit is allowed for only POL 360 or 160.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Credit is allowed for only POL 360, POS 160 or POL 160.
POL	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POL	417	The Arizona Political System	Contemporary political problems within the context of Arizona's political, social, and constitutional frameworks. Meets the Arizona Constitution requirement for teacher certification.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	430	Race and Politics in the Americas	Studies racial politics in North, Central, and South America with a focus on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	434	Media and Politics	Studies mass media and politics in the United States, e.g., media and elections, media and government.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	435	Women, Power, and Politics	The roles and treatment of women within various political contexts. Specific focus may vary with instructor.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
POL	436	Gender, Sexuality, Nation-States	Issues and problems related to the interface of gender, sexualities, nationalisms, and states in various world contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	440	Political Futures through Science Fiction	Examines the relationship between politics and science fiction literature and film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or HU	
POL	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	446	Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	447-W	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
POL	453	Latin American Cities	Urban studies of Latin American world cities, e.g., Mexico City, Santiago, emphasizing integration with U.S. cities, including Los Angeles, Phoenix.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	454	Mexico: Politics, Economy, Cultures	Politics, economy, and cultures in Mexico in historical and contemporary perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	460	Politics of Globalization	Theories and analysis of the politics of economic and technological globalization in the contemporary world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	464	Border Cities: Action Research on Globalization	Examines the effects of globalization on U.S.-Mexico border cities and towns with particular emphasis on Mexican border cities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	

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POL	470	Law and the Political Order	Investigates concepts of justice, political rights, adjudication and legislation, legal ordering, constitutional law, law as an instrument of change.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	480	Global Justice	Explores questions of justice that cross national borders, including delivery of foreign aid, immigration, and military intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
POL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	486	Global Political Economy	Contending approaches to historical and contemporary issues of international political economy, including global welfare, equality, ecology, and peace.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
POL	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
POL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
POL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POR	101	Elementary Portuguese	Basic grammar with intensive drills in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
POR	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
POR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	201	Intermediate Portuguese	Continuation of POR 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:POR 101 with a grade of C or better or currently enrolled
POR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	313	Portuguese Composition and Conversation	Develops skill in written Portuguese and corrected oral expression. Must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: POR 201 with C or better
POR	314	Portuguese Composition and Conversation	Continuation of POR 313.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: POR 313 with C or better
POR	321	Luso-Brazilian Literature	Representative masterpieces of Portuguese and Brazilian literature from the beginning to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: POR 313 with C or better
POR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	472	Luso-Brazilian Civilization	Lectures, readings, and discussion of important aspects of Luso-Brazilian civilization. Topics from music, art, folklore, literature, history, and politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites: POR 313 with C or better
POR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
POR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
POR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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POR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
POR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
POR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	101	Elementary Portuguese	Basic grammar with intensive drills in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.		
POR	201	Intermediate Portuguese	Continuation of POR 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
POS	434	Media and Politics	Studies mass media and politics in the United States, e.g., media and elections, media and government.	N	LEC	N	OPT	Liberal Arts and Sciences	INACTIVE Department of Political Science	3.	SB	
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	Students may not sign up for POS 110 who have received a D or better in POS 310
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		Pre-requisites: Freshman status; Maximum 25 hours
POS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		Pre-requisites: Maximum 25 hours
POS	210	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	220	Political Issues and Public Policy	Contemporary social problems and political issues, particularly development of public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	230	Current Issues in National Politics	Major issues facing national governments in the domestic field.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	L or SB	
POS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(HU or SB) & G	
POS	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(L or SB) & G	

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POS	270	American Legal System	Concepts, institutions, classifications, and functions of law. Role of the courts and impact of judicial decision making on social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	300	Contemporary Global Controversies	Explores key controversies in global politics including security, economic stability, poverty, gender, race, and the environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	301	Empirical Political Inquiry	Logic of political inquiry, including research problems, concepts, hypotheses, theories, measurement, data collection, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	305	Politics and Film	Examines portrayal of political events, ethnic groups, and sociopolitical situations in film, a major medium addressing questions of human values. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110
POS	311	Arizona Constitution and Government	Constitution and government of the State of Arizona. Credit is allowed for only POS 311 or 316 or 417. Meets the Arizona constitution requirement for teacher certification. May not be counted for the major or a teaching major or minor in Political Science	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	2.		
POS	313	The Congress	Lawmaking process in the U.S. Congress.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	314	The American Presidency	Office, role, and power of the American presidency in the American political system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	315	The Supreme Court	Role of the Supreme Court in American society and politics; examines decision-making process and impact of decisions; restraint versus activism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	316	State and Local Government	Surveys the operations, problems, and policies of state and local governments in the United States. Credit is allowed for only POS 316 or 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	320	Public Administration	Role of the administrator in the political process with an examination of the basic concepts of bureaucracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	325	Public Policy Development	Examines one or more aspects of public policy development including agenda setting and policy formulation, implementation, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	330	Contemporary Controversies in Domestic Politics	Explores key controversies in domestic politics including the environment, the economy, poverty, gender, race, and security.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	331	Public Opinion	Formation, expression, and influence of individual and organized opinion on political institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	332	American Political Parties	Development of the American party system. Party organization and functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	333	Interest Groups	Examines how minority, corporate, labor, farm, consumer, environmental, health, education and public interest groups, and single-issue movements influence government.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	336	Voters in America	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	340	History of Political Philosophy I	Western political philosophers and their theories to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H	
POS	341	History of Political Philosophy II	Western political philosophers and their theories from the 17th to the 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H	
POS	346	Problems of Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	351	Democratization	Examines the consolidation of democracies in postauthoritarian and postcommunist settings (e.g., Latin America, Eastern Europe, Asia).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	355	Russia and Successor States	Description and analysis of political institutions and practices in Russia and successor states.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	356	European Union	History and workings of EU member states, including single market, Euro, legal system, ethnonationalism, immigration, expansion, trade wars, and defense.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	357	South Asia Politics	Political culture and systems of South Asia examined through study of political writings, novels, and poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	358	Southeast Asia	Political background, governmental institutions, political dynamics, and developmental problems of Southeast Asian nations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	359	African Politics and Society	Comparative analysis of socioeconomic forces, political processes, government institutions, and political novels in Sub-Saharan Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	360	World Politics	Theory and practice of statecraft as applied to selected issues, regions, or eras. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	364	National Security, Intelligence, and Terrorism	Theoretical and empirical assessment of U.S. national security policy in the post-cold war era.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	368	Ethics and Human Rights	Explores issues of ethics, morality, and human rights in the global community.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	369	War, Politics, and Society	Relationships between techniques/technology of war and political/social structures in different time periods and locations. Who commands, dies, and pays?	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	370	Law and Society	Analyzes debates among social scientists and legal theorists concerning the relationship between law and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	401	Political Statistics	Basic concepts in statistics as they facilitate the description, explanation, and prediction of social and political phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	CS	Pre-requisite: POS 301
POS	410	Governing American Cities	Reviews modern urban problems, their sources, and potential solutions, including structural and policy alternatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	417	Arizona Political System	Contemporary political problems within the context of Arizona's constitutional, political, and social frameworks. Meets the Arizona Constitution requirement for teacher certification. Credit is allowed for only POS 417 or 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	426	Elements of Public Policy	Each section may cover one of the following topics: consumer protection, natural resources, criminal justice, environmental protection, science and technology, or theories of public policy. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	431	Campaigns and Elections	Examines campaigns from a multitude of perspectives including the politician, reporter, campaign strategist, and voter.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	435	Women and Politics	Focuses on the uniqueness of women in modern political systems and political thought. Emphasis may vary with instructor.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & C	
POS	439	Minority Group Politics in America	Role of minority groups in American politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & C	
POS	442	American Political Thought	Political theories and movements from the colonial period to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	443	Topics in Contemporary Political Theory	Major problems and theories in contemporary political thought.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	445	Asian Political Thought	Contemporary political ideas and theories in selected Asian countries, including the impact of Marxist and non-Marxist theories on revolutionary processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	451	China, Japan, and the Koreans	Comparative analysis of the political modernization experiences of China, Japan, and the two Koreas, focusing on their differing reactions to the West.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	452	China	Background of the Communist revolution, political processes, and developmental problems in China from a comparative perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	453	South America	Political institutions, process, and developmental problems of South American states examined through comparative analysis, novels, and poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	454	Mexico	Mexican federal, state, and local governmental institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	455	Central America and the Caribbean	Governmental institutions, political processes, and developmental problems of the nation-states and dependent areas of Central America and the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	459	South and Southern Africa	Post-apartheid South African government and politics; South Africa and the southern African region; regional security and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	463	Inter-American Relations	Diplomatic relations among the Latin American states. Development of U.S. foreign policy toward Latin America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	465	International Organization and Law	History, practical political significance, and future of international institutions, transnational regimes, and international law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	467	International Security	Examines issues affecting the international security of states and peoples, e.g., military, economic, technological, environmental, and demographic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	468	Comparative Asian foreign Policies	Foreign policies of the Asian states, emphasizing their security relations and movements toward regionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	471	Constitutional Law I	Development of the U.S. Constitution as reflected in decisions of the Supreme Court; jurisdiction and organization of the federal courts; judicial review; separation of powers; federalism; the commerce clause; national taxing and spending power; state police power.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	472	Constitutional Law II	Development of the U.S. Constitution as reflected in decisions of the Supreme Court; due process; equal protection of laws; individual rights; civil liberties.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	485	Political Economy	Problems, policies, and possibilities of various political-economic systems and the interrelationship of capitalism, socialism, and democracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	486	International Political Economy	Contending approaches to historical and contemporary issues of international political economy, including global welfare, equality, ecology, and peace.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
POS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6	L	Pre-requisites: Must be an Honors student
POS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
POS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-7	L	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
POS	501	Methods of Political Science	Problems of method and knowledge in political science, strategies of political inquiry, and issues in philosophy of social science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Political Science student
POS	502	Philosophy of Political Inquiry	Problems of knowledge and method in political science, with attention to both empirical and evaluative analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	2-3		
POS	503	Empirical Political Inquiry	Research methods and techniques of the discipline, emphasizing empirical foundations and analytic methods employed in subfields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Political Science student
POS	530	American Politics	Examines major debates in the study of American political processes and institutions. Covers parties, media, elections, public opinion, interest groups, and the three branches of government.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	545	Themes in Political Thought	Examines a particular theme or problem in political thought from both a historical and contemporary perspective. May be repeated with approval of the director of graduate studies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	550	Comparative Politics	Surveys major approaches across topical areas such as revolutions, authoritarianism, policy processes, interest groups, and electoral politics. Focus varies with instructor.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	560	International Relations	Surveys major theoretical approaches and debates in international relations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	563	Comparative Asian Security Policies	Analyzes domestic and international constraints, belief systems, and economic components in security decisions by major powers and Asian nations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	601	Advanced Experimental Research	Introduces experimental and quasi-experimental research designs in political research, including lab techniques and topics in the analysis of variance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	602	Advanced Survey Research	Presents design and conduct of political surveys, including sampling, instrument design, scaling, and statistical and graphical analysis of survey data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	603	Polimetrics I	Introduces theory and practice of linear regression analysis. Provides skills to read, understand, and evaluate professional literature using regression analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	604	Polimetrics II	Applies quantitative techniques to research topics producing publishable papers through exposure to time-series, logit and probit, and simultaneous equations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	606	Qualitative and Textual Analysis	Method and theory for the analysis of qualitative materials, systematic approaches for case studies, content analysis, critical analysis of texts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	635	State Politics and Public Policy	Introduces comparative state policy emphasizing policy or performance differences among the states and the reasons for these differences.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	636	Electoral Behavior	Introduces fundamental concepts of electoral behavior. Emphasizes presidential elections and examines why people vote and how their votes are determined.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	638	Law and Politics	Emphasizes research into such topics as constitutional law, women and the law, American legal system, judicial process, and judicial selection.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	651	Politics of Change and Development	Examines contending approaches to national, social, and political change.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	660	The Modern World System	Theoretically driven, historical analysis of the organization and operation of the international political economy since the 16th century.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	661	The State	Examines theories of state, state-society relations, and interstate politics emphasizing questions of sovereignty, territoriality, violence, representation, democracy, and change.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	662	International Organization	History, practical political significance, and future of international institutions, transnational regimes, and other approaches to international organization.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	664	War, Peace, and Conflict Processes	Systematic analysis of the causes of war, the preconditions for peace, and approaches to the resolution of conflict.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	665	foreign Policy Theory	Examines foreign policy theory and methods. Development and critique of research designs analyzing foreign policy processes within and among nations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-15		
POS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-15		
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	340	History of Political Philosophy I	Western political philosophers and their theories to the 17th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU & H	
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Students may not sign up for POS 110 who have received a D or better in POS 310
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Students may not sign up for POS 110 who have received a D or better in POS 310
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	210	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	220	Political Issues and Public Policy	Contemporary social problems and political issues, particularly development of public policy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	230	Current Issues in National Politics	Major issues facing national governments in the domestic field.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
POS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
POS	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & G	
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110
POS	325	Public Policy Development	Examines one or more aspects of public policy development including agenda setting and policy formulation, implementation, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	336	Voters in America	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	346	Problems of Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
POS	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	351	Democratization	Examines the consolidation of democracies in postauthoritarian and postcommunist settings (e.g., Latin America, Eastern Europe, Asia).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	360	World Politics	Theory and practice of statecraft as applied to selected issues, regions, or eras. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	364	National Security, Intelligence, and Terrorism	Theoretical and empirical assessment of U.S. national security policy in the post-cold war era.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
POS	417	Arizona Political System	Contemporary political problems within the context of Arizona's constitutional, political, and social frameworks. Meets the Arizona Constitution requirement for teacher certification. Credit is allowed for only POS 417 or 311.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	485	Political Economy	Problems, policies, and possibilities of various political-economic systems and the interrelationship of capitalism, socialism, and democracy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PPE	550	Physical Education for the Elementary School	Scope and values of physical education in elementary schools. Methods, materials, and practices in teaching for primary through upper grades. Credit is allowed for only PPE 550 or 350. fee	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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PPE	555	Physical Education in the Secondary School	Current trends and theories such as elective programs, coed classes, legal issues, contract teaching, curriculum, and administration. Credit is allowed for only PPE 555 or 355. fee	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	560	Adapted and Inclusive Physical Education	Teaching individuals with disabilities physical skills and activities. Credit is allowed for only PPE 560 or 360.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	565	Teaching Physical Activity Concepts	Teaching physical activity concepts in PE settings. Analyzes and critiques state and national physical education standards. Credit is allowed for only PPE 565 or 365.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	570	Research on Teacher Education in Physical Education	Discusses current research on teacher education across fields, with an emphasis on physical education pedagogy. Credit is allowed for only PPE 570 or 370.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	575	Coaching Methods for Youth Sports	Scope and values of coaching K-12. Methods, materials, and practice in coaching philosophy. Best practices and activities for grades K-12. Credit is allowed for only PPE 575 or 375.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	576	Research on Curriculum in Physical Education	Discusses and applies research findings on curricular models for physical education and physical activity in school settings and beyond.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites:Completed COE 501 with a grade of D or better or be currently enrolled
PPE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	585	Research on Teaching in Physical Education	Contemporary research and theory on teaching across fields, with an emphasis on physical education pedagogy; provides a practical research experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	593	Applied Project		Y	LEC	Y	CNV	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
PPE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PPE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
PPE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		
PPE	210	Teaching Fitness Activities for K-12 Students	Practical application of biomechanical, physiological, psychological, and learning principles in the analysis of skill acquisition and performance. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	215	Teaching Team Sports	Practical application of biomechanical, physiological, psychological, and learning principles in the analysis of skill acquisition and performance. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	220	Teaching Lifetime Activity K-12	Participating in and teaching sequenced activities K-12.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	225	Teaching Cooperative and Initiative Games	Participating in and teaching sequenced adventure-based activities.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
PPE	350	Physical Education for the Elementary School	Scope and values of physical in elementary schools. Methods, materials, and practices in teaching for primary through upper grades. Credit is allowed for only PPE 350 or 550. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	355	Physical Education in the Secondary School	Current trends and theories such as elective programs, coed classes, legal issues, contract teaching, curriculum, and administration. Credit is allowed for only PPE 355 or 555. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	360	Adapted and Inclusive Physical Education	Teaching individuals with disabilities physical skills and activities. Credit is allowed for only PPE 360 or 560.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	365	Teaching Physical Activity Concepts	Teaching physical activity concepts in PE settings. Analyzes and critiques state and national physical education standards.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
PPE	370	Research on Teacher Education in Physical Education	Discusses current research on teacher education across fields, with an emphasis on physical education pedagogy. Credit is allowed for only PPE 370 or 570.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
PPE	375	Coaching Methods for Youth Sports	Scope and values of coaching K-12. Methods, materials, and practice in coaching philosophy. Best practices and activities for grades K-12. Credit is allowed for only PPE 375 or 575.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	474	Field Experience in Physical Education	Analyzes course content in an elementary/secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction and assessment. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
PPE	480	Professional Seminar for Physical Education	Methods of instruction, organization, and presentation of appropriate content in elementary and secondary physical education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
PPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
PPE	495	Research on Teaching in Physical Education	Contemporary research and theory on teaching across fields with an emphasis on physical education pedagogy; provides a practical research experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PRM	120	Leisure and the Quality of Life	Conceptual foundations for understanding the role of leisure in the quality of life. Social, historical, psychological, cultural, economic, and political foundations of play, recreation, and leisure.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
PRM	150	Outdoor Pursuits	Theories and practical applications related to outdoor recreation pursuits. Interdisciplinary approach to wilderness issues and philosophies, culminating in an outdoor experience.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

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PRM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
PRM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	210	Community Services and Professions.	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Prerequisite: Parks and Recreation Management or Recreation (management concentration) student; Pre- or corequisite: PRM 120 or REC 120 with a C or better if completed
PRM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: REC 120 (or PRM 120) with a C or better if completed
PRM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre- or Co-requisite: PRM 120 or REC 120 with a C or better if completed
PRM	303	Program Planning	Foundations for effective program planning in varied leisure delivery systems.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: NLM 160 or PRM 120 with C or better
PRM	304	Recreation Planning and Facility Development	Surveys development and management of public, private, and commercial recreation areas and facilities with a focus on meeting program needs.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Parks & Rec Mgmt, Rec & Tourism or Nonprofit Leadership & Mgmt student; Minimum 2.50 cumulative gpa; minimum 45 hours; MAT 142 or higher; PRM 210 (or NLM 210, TDM 210 or REC 210) with C or better; ENG 102 with C or better
PRM	315	Community Recreation Systems	Explores and assesses community recreation delivery systems in the United States.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM120 (REC120) with C or better
PRM	340	Outdoor Survival	Interdisciplinary approach to outdoor survival, including attitudes, psychological stress, physiological stress, preparation, hypothermia, navigation, flora, and wildlife.	N	FLD	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	364	Foundations of Therapeutic Recreation	Overview of therapeutic recreation and its concepts, practices, service models, and settings. Explores the provision of recreation and treatment services for individuals with disabilities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
PRM	368	Sports Management	Introduces concepts of sports management in varied leisure delivery systems.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	370	Natural Resource Recreation Planning and Management	Introduces outdoor recreation resource delivery systems; history of wilderness and outdoor recreation resources; the role of outdoor recreation in society; outdoor recreation agencies; related environmental issues.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisite: Must have completed 45 or more earned hours
PRM	380	Wilderness and Parks in America	Examines the American Conservation Movement and the relationships between the environment and recreation behavior.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB & H	
PRM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	400	Processes and Techniques in Therapeutic Recreation	In-depth analysis of theoretical and philosophical approaches to therapeutic recreation practice with emphasis on various facilitation techniques used in therapy.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have completed PRM364 or REC364 with a grade of C or greater or be currently enrolled
PRM	401	Management of Parks and Recreation Services	Basic principles of administration and their application in successful administrative situations. Analyzes administrative function, structure, and policies.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM or REC student; must have at least 2.5 ASU cumulative GPA; 45 or more semester hours; ENG 102 and PRM 210 (or REC 210) with C or better or currently enrolled; MAT 142 or higher with D or better or currently enrolled
PRM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: PRM 304 or PRM 401 (or REC 462 or REC 440) with a C or better if completed
PRM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre- or Co-requisite: PRM 304 or PRM 401 (or REC 462 or REC 440) with a C or better if completed
PRM	406	Program Design and Evaluation in Therapeutic Recreation	In-depth analysis of assessment, treatment planning, program implementation, documentation, and evaluation strategies employed in therapeutic recreation practice.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-or Co-requisites: PRM 364 (or REC 364) and PRM 400 (or REC 400) with C or better if completed

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PRM	424	Recreation Program Management	Provides nonmajors with an in-depth look at recreation program management in a variety of settings with diverse groups.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: NLM 160 or PRM 120 (REC 120) with C or better or currently enrolled; Not open to Parks & Recreation Management, Recreation (Management concentration) or Nonprofit Leadership & Management majors.
PRM	460	Assessment and Documentation in Therapeutic Recreation	In-depth study of the therapeutic recreation assessment process, including examination of interview techniques, assessment instruments, treatment planning, outcomes, evaluation, research, and documentation.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 364 (REC 364) and PRM 400 (REC 400) with C or better or currently enrolled
PRM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Pre-requisites: Parks and Recreation or Recreation (Management concentration) student; PRM 402 (REC 482) and PRM 403 (REC 499 Pre Internship Workshop) with C or better
PRM	470	Environmental Interpretation and Education	Introduces park interpretation and environmental education that includes theories, principles, and techniques.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 380 with C or better
PRM	475	Entrepreneurial Recreation and Tourism	Explores basic business principles and innovative processes involved in starting a small business in the commercial recreation and tourism industry.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or REC 120 with C or better
PRM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
PRM	486	Special Events Management	Principles of programming and managing special events for diverse populations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
PRM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
PRM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	CS	Pre-requisites: PGS 101 with a grade of C or greater; Must have completed one of the following with a grade of C or greater or in progress: MAT 119, 170, 242, 243, 251, 260, 261, 262, 270, 271, 272, 274, 290 or 291
PSY	290	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	4.	L or SG	Pre-requisite: Must have earned C or better or be currently enrolled in either JUS 302, POS 401, PSY 230, QBA 221, SOC 395, or STP 226
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	325	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	CS	
PSY	360	Cognitive Science	Examines cognition from the varied perspectives of philosophy, linguistics, psychology, computer science (artificial intelligence), and neuroscience.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	390	Experimental Psychology	Continuation of concepts in PSY 290, with emphasis on multifactor designs and programmatic sequence of experiments.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	Pre-requisite- Mus have earned C or better in PSY 290 or currently enrolled

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PSY	399	Supervised Research		Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-3		
PSY	437	Human Factors	Emphasizes human factors in high-technology systems. Specific topics include systems development, systems analysis techniques, displays, and controls.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	
PSY	438	Human-Computer Interaction	Theories, methods, and findings concerning the usability of computer systems and the design of effective user interfaces.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	439	Training and Skill Acquisition	Theories, methods, and findings concerning the acquisition of skilled performance and the design of effective training systems.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	440	Industrial/Organizational Psychology	Examines personnel selection, performance assessment, job and workplace design, job satisfaction, organizational behavior, management systems, and industrial safety.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	448	Human Factors in Transportation	Examines human performance and human-machine design issues in aviation and ground transportation.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	449	Human Factors in Sport	Examines how psychological principles can be applied to enhance the performance of athletes and coaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	477	Applied Psychology Capstone Experience	Applied psychology from a systems perspective. Requires a report based on research and/or applied work as a culminating experience.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-6		
PSY	492-E	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-6		
PSY	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-4		
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-3		
PSY	528	Sensation and Perception	Principles of sensory and perceptual processes, emphasizing research literature.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	530	Intermed Statistics	One-way and factorial designs, contrasts, post-hoc tests, probing of interactions, mixed designs, power, computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	531	Multiple Regression in Psychological Research	Multiple regression and correlation, hierarchical regression, interactions, curvilinear relationships, categorical predictors, ANOVA in regression, regression diagnostics, regression graphics.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	560	Advances in Theoretical Psychology	Covers new empirical and theoretical work in psychology with emphasis on its applicability.	N	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	561	Methods in Applied Psychology	Methods of particular value in applied settings, including usability testing, prototyping, and use of computers in data collection and analysis. May be repeated for credit up to 9 hours.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	562	Advanced Human Factors	In-depth study of the issues, methods, and findings in industrial and organizational psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	563	Advanced Industrial and Organizational Psychology	In-depth study of the issues, methods, and findings in industrial and organizational psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		

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PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-4		
PSY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		Pre-requisites: Freshman; 25 or less total earned hours
PSY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	CS	Pre-requisites: PGS 101 with a grade of C or greater; Must have completed one of the following with a grade of C or greater or in progress: MAT 119, 170, 242, 243, 251, 260, 261, 262, 270, 271, 272, 274, 290 or 291
PSY	231	Honors Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology for honors students. Lab includes learning to use statistical software packages.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.	CS	Pre-requisites: Barrett Honors student; MAT 119, MAT 170, MAT 242, MAT 251 or higher with C or better; PGS 101 with C or better
PSY	290	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.	L or SG	Pre-requisites: ENG 101 with C or better or currently enrolled; PSY 230 or one of the following courses with a C or better or currently enrolled: ECN 221, JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	325	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	CS	Pre-requisites: Must have completed one of the following courses with a grade of C or greater or be currently enrolled: JUS 302, POS 401, PSY 230, QBA 221, SOC 390, SOC 395 or STP 226
PSY	390	Experimental Psychology	Continuation of concepts in PSY 290, with emphasis on multifactor designs and programmatic sequence of experiments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	399	Supervised Research		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		
PSY	420	Analysis of Behavior	Research, applications, and philosophy of the analysis and control of human behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 and 320 with C or better
PSY	422	Motor Control in Special Populations	Discusses principles of motor control theories and related practical applications for certain special developmental populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed KIN 345 with a grade of C or greater or be currently enrolled
PSY	424	Genetic Psychology	Introduces the concepts, methodologies, and findings of behavioral genetics for Psychology majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 with C or better
PSY	425	Biological Bases of Behavior	Critical study of physiological psychology, e.g., brain mechanisms underlying motivation, learning.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	
PSY	426	Neuroanatomy	Structure and function of mammalian brain, including sheep brain dissection.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.		Pre-requisites: Must have completed PSY 325 with a grade of C or greater or be currently enrolled
PSY	427	Immunoneuropsychology: Research Foundation	Mind and the immune system's mutual influence (including neuroimmunologic diseases), with an emphasis on the molecular and cellular mechanisms involved.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	434	Cognitive Psychology	Human organism as a processor of information, from perception to cognition. Abstract concepts, semantic memory, attention, and mental imagery.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 323 or PSY 324 with C or better
PSY	437	Human Factors	Emphasizes human factors in high-technology systems. Specific topics include systems development, systems analysis techniques, displays, and controls.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 with C or better
PSY	470	Psychopharmacology	Basis of drug action at physiological and behavioral levels. Psychological and medical applications and limitations of drugs used in the treatment of mental illness.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 325 AND one of the following: BIO 181, 182, 187, 188, 201, 202, ZOL 201 or ZOL 202 AND one of the following: CHM 113, 114, 115, 116, 117 or 118, with a grade of C or greater or be currently enrolled
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Psychology	1-6		Pre-requisites: Must be an Honors student
PSY	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Psychology	1-6	L	Pre-requisites: Must be an Honors student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-6		Pre-requisites: Must be an Honors student
PSY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-7		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-3		
PSY	501	Supervised Teaching	Experience in and examination of perspectives on teaching undergraduate psychology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	506	Survey of Research in Environmental Psychology	Major topics and paradigms in the study of person-environment relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	512	Advanced Learning	Principles and theories of learning, emphasizing research literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	524	Advanced Physiological Psychology	Contributions of physiological processes and brain function to fundamental behavioral processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	528	Sensation and Perception	Principles of sensory and perceptual processes, emphasizing research literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	530	Intermed Statistics	One-way and factorial designs, contrasts, post-hoc tests, probing of interactions, mixed designs, power, computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	531	Multiple Regression in Psychological Research	Multiple regression and correlation, hierarchical regression, interactions, curvilinear relationships, categorical predictors, ANOVA in regression, regression diagnostics, regression graphics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	532	Analysis of Multivariate Data	Matrix algebra for multivariate procedures, component and factor analysis, canonical and discriminant analysis, classification, MANOVA, logistic regression, hierarchical linear model.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	533	Structural Equation Modeling	Path analysis; exploratory and confirmatory factor analysis; recursive and nonrecursive latent variable models; mean and covariance structures; latent growth models.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	534	Psychometric Methods	Theory and practice of psychological measurement using classical and modern test theories. Reliability assessment, test validation, test construction, test usage.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	535	Cognitive Processes	Theoretical/empirical treatment of the human organism as a processor of information, including abstraction, memory structure, problem solving, and thinking.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	536	Statistical Methods in Prevention Research	Statistical methods used in prevention research including epidemiological methods, logistic regression, program effect estimation, estimation, and mediation analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	537	Longitudinal Growth Modeling	Growth modeling methodology to describe individual variation in development over time. Employs multilevel and structural equation modeling frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	538	Advanced Structural Equation Modeling	Mean and covariance structure analysis. Includes multiple-group modeling, two-level hierarchical modeling, longitudinal growth modeling, analysis with categorical outcomes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	541	Research in Cognitive Development	Theoretical and empirical issues in the study of children's knowledge and cognitive processes. Comparison of research in Piagetian and other traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	542	Social Development	Reviews and critiques major issues in the area of social development. Covers theory, research, and content.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	550	Advanced Social Psychology	Theory and research concerning interpersonal perception, decision making, attitude formation and change, group processes, social motivation, and interaction processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	551	Advanced Social Psychology	Continuation of PSY 550.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	553	Social Influence	Researches literature relevant to attitude formation and change, conformity, obedience, power, compliance, and altruism and others.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	555	Experimental and Quasi-Experimental Designs for Research	Reviews research techniques. Analyzes lab and field research; applications to specific topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	569	Advanced Study of Personality	Personality as a theoretical concept in psychology, including definitional problems, behavioral and traditional approaches, the measurement of personality, and current research issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	572	Psychological Assessment	Theory and research on assessment of personality, psychopathology, and intelligence; construction of psychological assessment instruments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	573	Psychopathology	Theory and research relating to the contribution of psychological, social, physiological, and genetic factors to the development and persistence of abnormal behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

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PSY	574	Psychotherapy	Detailed survey of the theoretical and empirical literature relating to verbal psychotherapy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	578	Developmental Psychopathology	Covers major theories and research related to the development of psychological disorders of childhood and adolescence.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	582	Community Psychology	Community systems, intervention techniques, consultation models, history and current status of community mental health movement, and conceptualization of the roles of community psychologists in social system intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	624	Clinical Neuroscience	Examines the biological underpinnings of psychological disorders at the molecular, cellular, and system levels (e.g., schizophrenia, depression, anxiety).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-15		
PSY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		

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PSY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Psychology	1-15		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: MAT 119, 170, 210, or 270 with a D or better or currently enrolled; PGS 101 with a C or better or currently enrolled
PSY	290-W	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SG	Pre-requisites:ENG 102, 105 or 108 with a C or better or currently enrolled; PSY 230 with a C or better or currently enrolled
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	325-W	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have completed PSY290 with a grade of D or greater or be currently enrolled.
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	369	Biology of Human Sexuality	Biology of Human Sexuality	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with a C or better or be currently enrolled AND completed one semester of Biology with a D or better or be currently enrolled.
PSY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PSY	425	Biological Bases of Behavior	Critical study of physiological psychology, e.g., brain mechanisms underlying motivation, learning.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: must have completed PSY325 with a grade of D or greater or be currently enrolled and specific plans only.
PSY	470	Psychopharmacology	Basis of drug action at physiological and behavioral levels. Psychological and medical applications and limitations of drugs used in the treatment of mental illness.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 290 and PSY 325 with a C or better or currently enrolled
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
PSY	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PSY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-requisite: PGS 399 with C or better
PSY	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		

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PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PUB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		Pre-requisites: Freshman; maximum 25 hours
PUB	501	Introduction to Scholarly Publishing	Introduces the purpose, organization, and operation of scholarly publishing, including its history, societal role, and current issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PUB	502	Scholarly Editing	Publishing procedures, proofreading, and manuscript editing of scholarly books, textbooks, and scholarly journals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	503	Advanced Scholarly Editing	Advanced manuscript editing, acquisitions, developmental editing, and indexing of scholarly books, textbooks, and scholarly journals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	510	Research in Scholarly Publishing	Individual or group research projects on issues in scholarly publishing, including legal, economic, design, technological, and related topics.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	580	Practicum		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PUB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PUB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PUB	592	Research		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PUB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	THE	N	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PUP	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & H & G	
PUP	190	Sustainable Cities	Introduces technological, social, and cultural principles and innovations for cities under the notion of sustainability and sustainable development within the global, regional, and local contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(HU or SB) & G	
PUP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	200	The Planned Environment	Environmental, aesthetic, social, economic, political, and other factors influencing urban development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & H	
PUP	261	Urban Planning I	Planning communication: communication techniques for urban planning and landscape architecture communication. Credit is allowed only for PUP 261 or PLA 261.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	262	Urban Planning II	Reading the landscape: observing, experiencing, and graphically expressing the symbolic and aesthetic significance of natural landscapes.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	301	Introduction to Urban Planning	Theoretical and practical aspects of city planning. Interrelationships among physical planning, environment, government, and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	
PUP	322	Computers in Planning	Planning methods using Geographic Information Systems, database, spreadsheet, image manipulation, and desktop publishing computer software packages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	361	Introductory Urban Planning Studio	Basic site planning and design techniques. Collection and analysis of information and basic planning research. Report writing and public presentation skills. Fee.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Must be Urban Planning BSD student
PUP	362	Urban Planning III	Neighborhood planning: local community plan making; urban development and neighborhood improvement. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Must be Urban Planning BSD plan; Must have completed PUP 361 with a grade of C or greater or be currently enrolled

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PUP	363	History of Planning	Historical overview of western urban and regional planning and planning theory, focusing on the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following students: Design Studies BA, Urban Planning BSD or Housing & Urban Developmnt BSD
PUP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	412	History of the City	The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(L or HU) & H	Pre-requisites: Must be either: Urban/Environmntl Planning MUEP, Pre-Urban Planning, Urban Planning BSD, Pre-Housing & Urban Developmnt , Housing & Urban Developmnt BSD, Design Studies BA, Landscape Architecture BSLA or Architectural Studies BSD
PUP	420	Theory of Urban Design	Analyzes the visual and cultural aspects of urban design. Theories and techniques applied to selected study models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU	Pre-requisites: Must be one of the following students: Urban/Environmntl Planning MUEP, Urban Planning BSD or Housing & Urban Developmnt BSD
PUP	424	Planning Methods	Methods for urban planning research. Emphasizes research design, quantitative and qualitative methods, survey research, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban/Environmntl Planning MUEP, Urban Planning BSP or Housing & Urban Developmnt BSD; PUP 301 with C or better
PUP	425	Urban Housing Analysis	Nature, dimensions, and problems of urban housing, government policy environment, and underlying economics of the housing market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following students: Urban Planning BA, Landscape Architecture BSLA, Architectural Studies BSD or Housing & Urban Developmnt BSD
PUP	430	Transportation Planning and the Environment	Overview of transportation planning from the perspective of land use planning, economic development, environmental planning, and social needs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	432	Planning and Development Control Law	Case studies on police power, eminent domain, zoning, subdivision controls, exclusion, preservation, urban redevelopment, and aesthetic and design regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following plans: Urban/Environmntl Planning MUEP, Urban Planning BSD or Housing & Urban Developmnt BSD
PUP	433	Zoning Ordinances, Subdivision Regulations, and Building Codes	Analyzes zoning ordinances, subdivision regulations, building codes, and other planning implementation techniques relative to local development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be an Urban/Environmental Planning, Urban Planning or Housing & Urban Development student
PUP	434	Urban Land Economics	Interaction between space and economic behavior. Examines the use and value of land through economic theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be either Urban/Environmntl Planning MUEP or Urban Planning BSD student
PUP	436	City Structure and Planning	Political structure and organization of government as it relates to planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be either: Urban/Environmntl Planning MUEP, Pre-Urban Planning, Urban Planning BSD, Pre-Housing & Urban Developmnt or Housing & Urban Developmnt BSD; Must have completed PUP 301 with a grade of C or greater or be currently enrolled
PUP	442	Environmental Planning	Environmental planning problems, including floodplains, water quality and quantity, solid and hazardous waste, air quality, landslides, and noise.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban/Environmntl Planning MUEP, Urban Planning BSP or Housing & Urban Developmnt BSD; PUP 301 with C or better
PUP	444	Preservation Planning	History, theory, and principles of historic preservation. Emphasizes legal framework and methods practiced.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following Academic Levels: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	445	Women and Environments	Examines the role women play in shaping the built environment; ways built/natural forms affect women's lives. Focuses on contemporary U.S. examples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	C	Pre-requisites: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	452	Ethics and Theory in Planning	Ethics and theory of professional planning practice in urban and regional communities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	Pre-requisites: Must be one of the following plans: Urban/Environmntl Planning MUEP, AUrban Planning BSD or Housing & Urban Developmnt BSD
PUP	461	Urban Planning IV	Comprehensive planning: collection and analysis of economic, social, and environmental data relevant to urban planning; development of land-use plans. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Must be Urban Planning BSD student; Must have completed PUP 362 with a grade of C or greater or be currently enrolled
PUP	462	Advanced Urban Planning Studio	Comprehensive planning. Synthesis of complex data- and community-based analyses. Advanced report writing and public presentation skills. Fee.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Must be Urban Planning BSD student; Seniors only; Must have completed PUP 361 with a grade of C or greater
PUP	475	Environmental Impact Assessment	Criteria and methods for compliance with environmental laws; development of skills and techniques needed to prepare environmental impact statements/assessments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Must be Urban Planning BSP student
PUP	485	International Field Studies in Planning	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12	G	
PUP	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		

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PUP	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
PUP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		Pre-requisites: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
PUP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	501	The Idea of Planning	Comprehensive review of planning profession within a political, governmental, multicultural, and gender framework.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	510	Citizen Participation	Theory and practice of citizen participation in planning. Examines and critiques participation techniques and roles of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following students: Urban/Environmntl Planning MUEP, Urban Planning BSD or Housing & Urban Develpmnt BSD
PUP	520	Planning Theories and Processes	Reviews past and current theoretical developments related to social change perspectives, the role and ethics of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	524	Planning Methods I	Methods for urban planning research. Emphasizes research design, demographic analysis, forecasting, and survey research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	525	Urban Housing Analysis	Nature, dimensions, and problems of urban housing, government policy environment, and underlying economics of the housing market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	526	Historic Preservation Planning Practice	In-depth study of practical applications of historic preservation theory and methods. Overview of the professional work of the preservation field.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
PUP	531	Planning and Development Control Law	Case studies on police power, eminent domain, zoning, subdivision controls, exclusion, preservation, urban redevelopment, and aesthetic and design regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	532	Advanced Urban Planning Law	Advanced study on selected issues in planning law, such as urban design controls, exclusionary practices, compensable regulation, and tax policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	535	Water Law and Planning	In-depth study of legal materials providing substantive knowledge of water law, water management issues, and land use planning options.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	541	Economics of Environmental Planning	Application and limitations of economics in environmental planning and policy making in the United States and internationally.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	542	Environmental Administration and Planning	Environmental administration of policies and their relationship to environmental planning practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	544	Urban Land Use Planning	Theory and methods of urban land use planning, including the rational planning process, comprehensive, functional, and neighborhood plans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	546	Urban Design Policy	Advanced study of local, state, and federal urban design policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	548	Planning for Urban Environmental Sustainability	Theory and applications connecting sustainability sciences and practice to urban environmental planning. Sustainable urban development, restoration, and preservation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	550	Transportation and the Environment	Examines transportation planning from the perspectives of land use planning, economic development, environmental planning, and social needs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	561	Urban Design Studio	Current urban form and urban landscape design problems within the Phoenix-centered region.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		

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PUP	572	Planning Studio I: Data Inventory and Analysis	Comprehensive planning workshop dealing with real community problems. Focuses on the data gathering and analysis steps of the planning process. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	574	Planning Studio II: Options and Implementation	Comprehensive planning workshop dealing with real community problems. Focuses on the development of options, plan making, and plan implementation. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	575	Environmental Impact Assessment	Criteria and methods for compliance with environmental laws; develops skills and techniques needed to prepare environmental impact statements/assessments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	576	GIS Studio	GIS as a tool to address large, multifaceted planning problems.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisite: Urban/Environmntl Planning MUEP student
PUP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		Pre-requisites: Urban and Environmental Planning graduate student
PUP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	622	Planning Methods II: Quantitative Planning Analysis	Methods and models used as the basic quantitative techniques of urban, regional, and environmental planning and policy analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 524 with C or better
PUP	642	Land Economics	Land use and locational impact of economic activity and the urban real property market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	644	Public Sector Planning	Urban fiscal problems and public goods provision in state and local governments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

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PUP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
QBA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-3		
QBA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	221	Statistical Analysis	Methods of statistical description. Applies probability theory and statistical inference in business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: Must have completed one of the following courses with a grade of D or greater or be currently enrolled: MAT 119, MAT 211 or MAT 271
QBA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6		
QBA	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6	L	Pre-requisites: Must be an Honors student
QBA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-6		
QBA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-7		
QBA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-3		
QBA	502	Managerial Decision Analysis	Fundamentals of qualitative and quantitative analysis to aid management decision making in a competitive and uncertain environment.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: MBA student
QBA	508	Product and Service Innovation	Develops strategies for innovation in products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		W.P. Carey Graduate Students only
QBA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Graduate Students only (degree and non-degree seeking)

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
QBA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Graduate Degree Seeking Students only
QBA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-12		
QBA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: W.P. Carey Graduate Degree Seeking Students only
QBA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-15		
QBA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-15		
RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
RDG	510	Teaching Writing in the Elementary Classroom	Develops rationale, theory, and related practices for teaching writing in K-8 classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	512	Theoretical Foundations in Language and Literacy	Introduces theoretical lenses useful in understanding issues in language and literacy education and research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	521	Assisting the Struggling Adolescent Reader	Familiarizes teachers with literacy interests, practices, methods, strategies, and resources to develop and enhance students' enjoyment of learning with texts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	530	Research Issues in Literacy	For graduate students interested in research on major issues related to literacy instruction. Seminar activities include reviewing quantitative and qualitative methods and analyzing literacy research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	533	Literacy in Secondary BLE/ESL Settings	Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	534	Literacy in Science and Math		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	2-3		
RDG	550	Practicum Experiences in Elementary and Secondary Reading	Practicum experience utilizing assessment and instructional techniques for classroom settings. See RDG 557 for State of Arizona reading endorsement.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
RDG	556	Assessment and Procedures in Elementary and Secondary Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
RDG	557	Advanced Elementary and Secondary Reading Practicum	Advanced practicum experience utilizing specialized reading and other assessment and instruction techniques for classroom and clinic settings. Lab sections. Recommended for State of Arizona reading endorsement. May be taken concurrently with RDG 556.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	565	Literature for Latina and Latino Children and Adolescents	Selects, analyzes, and utilizes literature for Hispanic and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	581	Literature-Based Reading Programs		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	596	Gender, Culture, and Literacies	Influence of gender and culture on written, oral, and post-typographical texts.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student

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RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	630	Research in Literacy	For advanced graduate students interested in applied research problems, literature of literacy instruction, and major issues related to literacy research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
RDG	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	507-W	Content Area Reading	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must be a Post Bacc Secondary Ed or a Master of Education student in the College of Teacher Education & Leadership
RDG	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	531	Language and Literacy I	Instructional strategies for teaching reading using systematic, research-based phonics to aid decoding, vocabulary, comprehension development, writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	532	Language and Literacy II	Applies literacy strategies including instruction and diagnostic assessment, literacy lessons with adaptations for diverse learners, and extended classroom experiences.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	550-W	Practicum Experiences in Reading	Experience utilizing reading diagnostic and instructional techniques for classroom and clinic settings. Lab sections. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate students only
RDG	556	Assessment and Procedures in Elementary and Secondary Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	556-W	Assessment Procedures in Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
RDG	581	Literature-Based Reading Programs		N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
RDG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
RDG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RDG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		

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RDG	301	Literacy and Instruction in the Content Areas	Required course for all Secondary Education candidates. Introduces theory and instructional strategies for learning from text across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	301	Literacy and Instruction in the Content Areas	Required course for all Secondary Education candidates. Introduces theory and instructional strategies for learning from text across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
RDG	322	Language Literacy 1 in Elementary Schools	Instructional strategies for teaching reading using systematic research-based phonics to aid decoding; vocabulary; and comprehension development; writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	322	Language Literacy 1 in Elementary Schools	Instructional strategies for teaching reading using systematic research-based phonics to aid decoding; vocabulary; and comprehension development; writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student; BLE 321, EDP 323, EED 324 and EED 397 OR Special Ed student; SPE 310, SPE 320, SPE 317, SPE 322 and SPE 397 OR PDS (Professional Development School) student as appropriate
RDG	323	Literacy Processes in Content Areas	Principles and practices for planning subject matter units of instruction that explicitly address learning with texts across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: SED 321, SED 322 and SED 397 Pre-requisites: TEL 311, TEL 313, TEL 314, TEL 315 and BLE 312 with a C or better or currently enrolled; TEL 396 with a Y or currently enrolled; Secondary Ed student
RDG	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
RDG	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
RDG	413	Language Literacy 2 in Elementary Schools	Applies literacy strategies, including instruction and diagnostic assessment, literacy lessons with adaptations for diverse learners, extended classroom experiences.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student, EED 411, EED 412, EED 414, EED 496 OR PDS (Professional Development School) student
RDG	414	Teaching Reading and Decoding	Emphasizes teaching reading as part of an integrated classroom curriculum. Includes strategies and skills for teaching decoding (phonics), vocabulary, comprehension, study skills, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
RDG	414	Teaching Reading and Decoding	Emphasizes teaching reading as part of an integrated classroom curriculum. Includes strategies and skills for teaching decoding (phonics), vocabulary, comprehension, study skills, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	415	Teaching Phonics	Provides training in phonics instruction with the study of related research and classroom experiences as appropriate. Lecture, discussion.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisites: Initial Teacher Certification Program Admission; Co-requisites: EED 331, RDG 431, SPE 416, EED 496 and EED 433
RDG	431	Teaching Methods, Management, Strategies, and Assessment of Reading K-3 with Practicum	Examines reading processes, literacy development, comprehension, fluency skill/strategy development, assessments, management, and reading models/programs for K-3 students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; Co-requisites: RDG 415, EED 331, SPE 416, EED 496 and EED 433
RDG	432	Teaching Methods, Management, Strategies, and Assessment of Reading 4-8 with Practicum	Examines reading processes, content area literacy development, skill/strategy development, assessments, management, and reading models/programs for intermediate students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Pre-requisites: Initial Teacher Certification Program Admission; EED 433, RDG 415, EED 498, RDG 431 and SPE 416 completed with C or better or currently enrolled; EED 496 with Y or currently enrolled
RDG	440	Computer Gaming, Learning, and Literacy	Examines the principles of learning underlying well-designed video and computer games. Addresses the literacies involved in such games.	N	LEC	N	GRD	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must have a grade of C or better in CPI 111 and CPI 211
RDG	481	Reading Practicum		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	481	Reading Practicum		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
RDG	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
RDG	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
RDG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RDG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RE	302	Life and Letters of Paul		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of Supply Chain Management	3.		
RE	584	Internship		Y	LEC	Y	CNV	W.P. Carey School of Business	Department of Supply Chain Management	3.		
REA	380	Real Estate Fundamentals	Real estate for the student/consumer with an emphasis on the applied aspects of each area of real estate specialization. Not open to Real Estate majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.00 and a minimum total earned hours of 56, OR be a non-degree seeking student or Graduate student
REA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		
REA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		
REA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
REA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
REA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
REA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-12		
REA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
REA	300	Real Estate Analysis	Applies economic theory and analytical techniques to real estate markets. Topics include law, finance, appraisal, market analysis, investments, development.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	331	Real Estate Finance	Legal, market, and institutional factors related to financing proposed and existing properties. Emphasizes current financing techniques and quantitative methods. Prerequisites: FIN 300; professional program business student. In addition to individual course prerequisites, nonbusiness students must have at least a 2.50 ASU cumulative GPA, a 2.50 ASU business GPA, and 56 earned semester hours to register for any upper-division business course unless otherwise noted.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		

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REA	401	Real Estate Appraisal	Factors affecting the value of real estate. Theory and practice of appraising and preparation of the appraisal report. Appraisal techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	441	Real Estate Land Development	Neighborhood and city growth. Municipal planning and zoning. Development of residential, commercial, industrial, and special purpose properties.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	456	Real Estate Investments	Analyzes investment decisions for various property types. Cash flow and rate of return analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
REC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	501	Program Evaluation and Information Management	Develops skills in several areas, including evaluation, needs assessment, information and data collection, data management and analysis, computer applications, and report writing.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	502	Statistical and Data Analysis	Introduces descriptive and inferential methods used in community development, with an emphasis on nonprofit, tourism, and recreation sciences. Students gain experience using statistical software.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	502	Statistical and Data Analysis	Introduces descriptive and inferential methods used in community development, with an emphasis on nonprofit, tourism, and recreation sciences. Students gain experience using statistical software.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	530	Recreation and Tourism Service Management	Examines and applies organizational behavior, leadership, human resources, development, planning, and risk management to profession.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	552	Critical Issues in Recreation and Tourism	Examines critical research issues in the leisure, recreation and tourism fields.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	555	Theoretical Perspectives in Community Development	Reviews theoretical and empirical literature in community development with an emphasis on nonprofit, tourism, and recreation sciences.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	569	Advanced Tourism Studies	Advanced survey of tourism literature with an emphasis on relevant theories, concepts, and current research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	570	Social Aspects of Outdoor Recreation Management	Analyzes the social aspects of natural resource science, policy, and management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	579	Tourism Analysis	Examines theories and methods that govern tourist behavior and their relevance to destination development, operations, and management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		

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REC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
REC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
REC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-12		
REC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
RED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
RED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
RED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
RED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
REL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & G	Pre-requisites:Total Earned Hours must be less than or equal to 75 Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various intersectoral between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	205	Living and Dying	Ways that religions have understood birth, sexuality, death, and the passing of generations. Examples from traditions throughout the world. Lecture, discussion.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	210	Introduction to Judaism	Beliefs, ceremonies, festivals, and institutions of Judaism emphasizing the contemporary era. Assumes no previous knowledge about Judaism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
REL	225	African American Religion	Introduces the history and development of the African American religious tradition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G	
REL	260	Introduction to Islam	Examines Islamic beliefs, ceremonies, festivals, and institutions. Assumes no prior knowledge about Islam.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	270	Introduction to Christianity	Beliefs, ceremonies, festivals, and institutions of Christianity, emphasizing the contemporary era. Assumes no previous knowledge about Christianity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
REL	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		

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REL	301	Comparative Mysticism	Comparative examination of Eastern and Western mystical traditions from antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	305	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	
REL	310	Western Religious Traditions	Religious traditions of Judaism, Christianity, and Islam, comparing their doctrinal, institutional, and ritual systems and social histories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	313	Anti-Semitism in the Media	By examination and discussion of various media, explores the phenomenon of modern anti-Semitism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
REL	314	Jewish Philosophy	The history of Jewish philosophy from its origins in the Hebrew Scriptures to postmodern expressions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites:ENG 102 (or 105, or 108) with a grade of C or better or currently enrolled
REL	315	Hebrew Bible (Old Testament)	Nature, content, background, historical situation, and message of the books of the Hebrew Bible in English translation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
REL	317	Introduction to Rabbinic Judaism	Historical analysis of the thought, literature, and institutions of rabbinic Judaism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	318	Contemporary American Jewish Identities	Analyzes the complexity and diversity of the contemporary American Jewish community in religious and secular affairs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C	
REL	320	American Religious Traditions	Examines the formation, development, and interaction of major American religious traditions (indigenous, African American, Asian American, and Euro-American).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C & H	
REL	323	African American Religion: A Biographical Approach	Examines the experiences, motivations, and contributions of a number of figures associated with African American religion.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	324	Spirituals and the Blues	Multidisciplinary exploration of the African American religious and musical response to the North American diaspora experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	326	Latina/o and Latin American Religions and Cultures	Surveys the formative myths, rituals, and symbols and religious expressive cultures of U.S. Latinos and Latin Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	330	Native American Religious Traditions	Presents world views and religious thought through the art, architecture, literature, music, mythology, ritual, and folklore of representative tribes in North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	331	History of Native American Religious Traditions	Role of religion in Native American history, including missionization; religious adaptation; and prophetic, messianic, and religious revitalization movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & C & H	
REL	332	South American Indian Religions	Introduces the sacred stories, ceremonies, and beliefs of Native South American peoples in their historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	343	Taoism	Introduces the history, doctrines, and practices of Taoism from the mid-second century CE up to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & G & H	
REL	344	Religion and Values in Japanese Life	Japanese values expressed in the life and annual cycles of the family, local and national identities, and popular culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	345	Asian Religious Traditions	Introduces the major concepts of religious beliefs, rituals, and practices in Hinduism and Buddhism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	346	Chinese Religions	Examines the history and practices of Chinese religions with particular attention to culture, society, and history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	350	Hinduism	Studies diverse forms of Hinduism through its institutions, literature, folklore, art, and architecture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & G	
REL	351	Buddhism	Doctrines, practices, and institutions of the Buddhist religion, emphasizing its role in the history and culture of Asian societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & G	
REL	353	Folk Religions of Korea	Introduces forms of folk religions in Korea: shamanism, village rituals, ancestor-worship, fortune-telling, geomancy, and folk elements in major traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
REL	354	Religious Traditions of Korea	Examines major religious traditions of Korea: Buddhism; Christianity; Neo-Confucianism; indigenous practices and their development through political, cultural, and social frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
REL	355	Japanese Cities and Cultures to 1800	Relations among ideas and literary, visual, and performing arts of the ancient aristocracy, medieval samurai, and early modern townspeople.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
REL	356	Buddhism in America	Examines diverse Buddhist traditions in the U.S. among Asian-American communities and converts to this religion.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled
REL	357	Theravada Buddhism in South and Southeast Asia	Examines Theravada Buddhist institutions, practices, and communities in ancient and contemporary south and southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L & G	Pre-requisites:ENG 102, (or 105, or 108) with a grade of C or better
REL	365	Islamic Civilization	Global historical survey of Islamic cultures and societies up to the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	366	Islam in the Modern World	Examines the worldwide transformations of Islamic religion, cultures, and societies in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H & G	
REL	369	Women in Islam	Examines the roles women have played through Islamic history (Middle East) and the changing discourse on gender identity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	371	New Testament	Origins and literature of early Christian communities; historical investigations of the types of oral and written tradition in the New Testament.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	

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REL	372	formation of the Christian Tradition	Origins, development, and expansion of Christianity; major themes and tensions from the New Testament world to the beginning of the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	373	Women in Judaism	Studies the legal, social, and cultural status of Jewish women in various historical and contemporary societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	374	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
REL	375	Lost Scriptures, Lost Christianities	Wide diversity of early Christianity and its suppressed and lost texts, which have been found in modern times.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	376	Virgin Mary in History, Film, and Culture	Introduces formation and development of cult of the Virgin Mary; analyzes transformations of Mariology within historical, cinematic, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or ENG 108 with C or better. Credit is allowed for only FMS 376 or REL 376
REL	377	Religion in Russia	Examines the history of the various religious traditions of Russia and the former USSR from an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	379	Religion, Nationalism, and Ethnic Conflict	Examines the role of religion in national and ethnic conflict in the contemporary world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	380	Theology of Terror	Historical background, theological foundations, and consequences of violent Islamist movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	
REL	382	Religion, Magic, and Science	Relationship and conflict among religion, magic, and science in the West from antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	
REL	383	Origins, Evolution, and Creation	Examines scientific, mythic, and religious ideas relating to origins (particularly human). Place of antievolutionism and scientific creationism in American culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	384	The Bible and Archaeological Discoveries	Studies the Bible alongside the stories that architecture, pottery, metalwork, sculpture, tombs, and paintings of the ancient Near East have to tell. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	385	Contemporary Western Religious Thought	Introduces contemporary Jewish and Christian thought. Topics include religion and politics, problem of evil, interpretations of God, and feminist theology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	386	America and the Holocaust	Analyzes the historical and sociopolitical factors that shaped U.S. policy decisions regarding Germany's assault on Europe's Jews.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU or SB	
REL	388	Religion, Ethics, and International Politics	Explores the religious and ethical dimensions of international politics by examining historical and contemporary ideas, movements, issues, and events.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must have a C or better in ENG 102, or ENG 105, or ENG 108, or currently enrolled
REL	390	Women and Religion	Role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	391	Philosophy and Religion	General survey of the development of central concepts in the philosophy of religion in the history of Western philosophy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, or ENG 105, or ENG 108, with a grade of C or better, or be currently enrolled
REL	393	Religion and Sexuality	Examines what issues are involved in incorporating sexuality into religion and how/why religious traditions seek to control sexuality.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
REL	395	Religion and Psychology	Examines religious experience from various psychological viewpoints and explores the relationship between religion and psychology in theory and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, ENG 105 or ENG 108 with C or better
REL	396	Women in the Bible	Uses feminist criticism to reconstruct the remarkable women who stand in the shadow of the patriarchy in the bible.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must have a C or better in ENG 102, or ENG 105, or ENG 108, or currently enrolled
REL	400	Approaches to Religion	Examines the intellectual history of academic study of religion through various theoretical approaches, major themes, and thinkers.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be a Religious Studies student
REL	405	Problems in Religious Studies	Selected topics in religious studies; involves students in research interests of instructor.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Religious Studies undergraduate student
REL	410	Judaism in Modern Times	Variety of expressions of Judaism and Jewishness in the modern period. Topics may include American Judaism or religious responses to the Holocaust.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	420	Religion in American Life and Thought	Influence of religion on American society, culture, and ideas; the distinctive character of religion in America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	427	American Religious Thought	Thought of representative American religious thinkers, e.g., Jonathon Edwards, William Ellery Channing, Horace Bushnell, and Reinhold Niebuhr.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	430	Mesoamerican Shamanic Cosmographies	Analyzes process of religious hybridization in Mesoamerica; examines symbolic interpretations of Amerindian religious practice and cosmological concepts of Mesoamerican priests.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with C or better
REL	444	Religion in Japan	Religion in Japanese history, especially the development of Japanese Buddhism, and religion in the modern transformation of Japan.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H & G	
REL	460	Studies in Islamic Religion	Issues in the interpretation and understanding of Islamic texts, history, society, culture, and rituals. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	

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REL	461	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only AFS 480, SGS 442 or REL 461
REL	470	Religion in the Middle Ages	Religious aspects of medieval life and thought; variety of forms of dissent, heresy, and reform movements from the 4th to 13th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	471	Reformation and Modern Christianity	Protestant Reformation to contemporary Christian movements; includes factors in the dissolution of the Medieval Christian synthesis, variety of reform movements and reformation patterns, Catholic counter-reform measures, formation of liberal theology, ecumenical movement, and the World Council of Churches.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	480	Religion and Global Politics	Explores the nature and role of religion in international politics in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	G	
REL	483	Religion and Science	Investigates the correlation between science and religion as an interdisciplinary study from a historical perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	486	Holocaust on Film	Examines how motion pictures recorded actual holocaust events and have depicted them since World War II.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better. Credit is allowed for only FMS 486 or REL 486
REL	487	Religion and Film	Uses a transdisciplinary approach to explore cinematic representations of religious institutions, belief, and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		Pre-requisites: Must be an Honors student
REL	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6	L	Pre-requisites: Must be an Honors student
REL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
REL	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		
REL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-7		
REL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		
REL	500	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	501	Research Methods in Religious Studies	Explores the major themes and methods in the study of religion, with primary focus on classical texts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	502	Research Methods in Religious Studies	Explores the major themes and methods in the study of religion, with primary focus on contemporary texts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		

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REL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		
REL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	603	Teaching World Religions	Seminar designed to prepare participants to teach a course similar to ASU's REL 100.	N	LEC	N	GRD	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Phd or Masters student in Religious Studies
REL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	720	Approaches to North American Religious History	Traces narratives and approaches to imagine and reimagine the "plot" of American religious history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: PhD in Religious Studies student
REL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		
REL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisites: Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various intersectors between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	300	Research, Writing, and Thinking in Religion and Applied Ethics	Theoretical and methodological tools to study world religions' beliefs, practices, and communities and their intersections with ethical perspectives on problems.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better
REL	305-W	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
REL	310	Western Religious Traditions	Religious traditions of Judaism, Christianity, and Islam, comparing their doctrinal, institutional, and ritual systems and social histories.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	320	Religion in America	The emergence of religious ideas and institutions up to the Civil War.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C & H	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
REL	321-W	Religion in America	The emergence of religious ideas and institutions from the Civil War to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & H	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
REL	345	Asian Religious Traditions	Introduces the major concepts of religious beliefs, rituals, and practices in Hinduism and Buddhism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
REL	390-W	Women and Religion	The role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	Pre-requisite: ENG 101 or 105 with a C or better or currently enrolled

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REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	401	Sacred Scriptures and Social Choices	Examines relationships among contemporary moral issues and the sacred scriptures to support choices at individual, group, and public levels.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
REL	420	Religion in American Life and Thought	The influence of religion on American society, culture, and ideas; the distinctive character of religion in America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
REL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisite: Minimum CUM GPA of 2.00
REL	490	Senior Thesis	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student.	N	THE	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
REL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
REL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
REL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
REL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
REL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	305-M	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	School of Historical and Critical Inquiry	3.		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G	Pre-requisites: Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various intersector between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
REL	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
REL	260	Introduction to Islam	Examines Islamic beliefs, ceremonies, festivals, and institutions. Assumes no prior knowledge about Islam.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	270	Introduction to Christianity	Beliefs, ceremonies, festivals, and institutions of Christianity, emphasizing the contemporary era. Assumes no previous knowledge about Christianity.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	305	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	315	Hebrew Bible (Old Testament)	Nature, content, background, historical situation, and message of the books of the Hebrew Bible in English translation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
REL	320	American Religious Traditions	Examines the formation, development, and interaction of major American religious traditions (indigenous, African American, Asian American, and Euro-American).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C & H	
REL	330	Native American Religious Traditions	Presents world views and religious thought through the art, architecture, literature, music, mythology, ritual, and folklore of representative tribes in North America.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
REL	371	New Testament	Origins and literature of early Christian communities; historical investigations of the types of oral and written tradition in the New Testament.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
REL	372	formation of the Christian Tradition	Origins, development, and expansion of Christianity; major themes and tensions from the New Testament world to the beginning of the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
REL	374	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	390	Women and Religion	Role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	390	Women and Religion	Role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ROM	101	Elementary Romanian	Basic grammar with intensive drills in class and lab directed toward conversational fluency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
ROM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	201	Intermediate Romanian	Continuation of ROM 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
ROM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	313	Romanian Composition and Conversation	Develops skills in written Romanian and correct oral expression. Must be taken in sequence with ROM 314.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: ROM 201
ROM	314	Romanian Composition and Conversation	Continuation of ROM 313. Develops skills in written Romanian and correct oral expression. Must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: ROM 313
ROM	411	Advanced Spoken and Written Romanian I	Improvement of spoken and composition skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ROM 101, 201, 313, 314 with C or better
ROM	412	Advanced Spoken and Written Romanian II	Improvement of spoken and composition skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ROM 101, 201, 313, 314, & ROM 411 with C or better
ROM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ROM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	REC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ROM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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ROM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RTM	120	Leisure and Quality of Life	Conceptual foundations for understanding the role of leisure in quality of life, socially, historically, psychologically, culturally, economically, and politically.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
RTM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	210	Leisure Delivery Systems	Introduces development, management, and organization of the public, not-for-profit, and private sectors for the leisure services profession.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	301	Leadership in Recreation and Tourism	Leadership theory and strategies applied to recreation and tourism settings, emphasizing group dynamics, motivational processes, and supervisory skills.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have a GPA of 2.0 or greater
RTM	302	Recreation and Tourism for Diverse Populations	The role of recreation and tourism in serving the needs of culturally, physically, emotionally, mentally, and demographically diverse populations. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-requisites: must have a GPA of 2.0 or greater
RTM	303	Programming Recreation and Tourism Services	Foundations for effective programming of leisure services in public, not-for-profit, and private sectors. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must be in either HSRECBS or PPRECWBS, or PPTDMBS plans (Recreation & Tourism Mgmt majors)
RTM	304	Recreation and Tourism Areas and Facilities Management	Principles of management, care, function, and maintenance of recreation and tourism areas, facilities, and resources. Field and classroom based.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: must have a GPA of 2.0 or greater
RTM	320	Talent and Entertainment Concepts	Provides theory and skill development focused on management, marketing, finances, facilities, equipment, and operations related to coordinating entertainment elements.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites:Completed RTM 486 or PRM 486 with a grade of D or better, or currently enrolled
RTM	321	Event Protocol, Ethics, and Etiquette	Theoretical and practical focus on the special elements of protocol, ethics, and etiquette as they apply to special events management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	322	Special Event Programming	Provides a theoretical and practical base related to planning, organization, and coordination of activity elements that comprise the special events program.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	323	Special Event On-Site Operations	Theory and practical skills focused on security, parking, traffic, waste management, transportation, communication, storage, and other operational issues.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	324	Festival Site Design	Provides both a theoretical basis and practical skills focused on how to physically design and lay out a special event.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	325	Working with Subcontractors and Vendors	Theory and skills focused on equipment rentals, food and beverage vendors, arts and crafts vendors, commercial vendors, and other subcontracted entities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	326	Sponsorship	Provides theory and practical skills focused on selling, partnership, benefit/assets, and leverage concepts of sponsorship for special events.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	327	Creative Event Revenue Production	Provides both theoretical and practical skills focused on earned income and other alternative financing for special events.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	328	Budgeting and Accounting for Special Events	Focuses on details related to budgeting, accounting, and financial controls used in special event management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	355	Team-Building Strategies	Explores the concepts and strategies for facilitating team building, self-confidence, and positive self-esteem in situations across the lifespan.	N	LEL	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	360	Policy, Planning, Development of Recreation and Tourism Resources	Investigates the policy, planning, development, and management practices related to the provision of recreation and tourism opportunities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	373	Leisure Travel and Tourism	Examines leisure travel and tourism, tourist behavior, and the effect of tourism on communities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
RTM	388	Business Practices for Special Event Management	Emphasizes personnel, strategic planning, marketing, risk management, legal issues, and professionalism in special event management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.

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RTM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	401	Administration of Recreation and Tourism Services	Basic application of management principles to recreation and tourism services. Includes budgeting, personnel actions, legal issues, and public relations. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	402	Evaluation and Assessment in Recreation and Tourism	In-depth development of a program evaluation. Specification of objectives, instrument development and administration, data analysis, and reporting findings.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must be in Plan HSRECBS, AND have completed either REC 160 OR REC 210 OR RTM 210 with a grade of C or greater
RTM	403	Professional Development Seminar	Emphasizes current professional issues and refinement of professional philosophy and competencies that enable transition from student to professional.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must be a BS student in Recreation & Tourism Mgt
RTM	404	Marketing Recreation and Tourism	Principles of marketing and promotional strategy for recreation and tourism operations. Emphasizes case study experience with leading professionals.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	450	Leisure and Aging	Examines the factors influencing leisure among older adults, including policy issues and program service implications. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	451	Grant Writing for Human Service Professionals	How to increase grant funding: creating fundable ideas, identifying sponsors, following guidelines, writing effectively, constructing budgets, responding to reviewers.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	453	Volunteer Management in Human Service Organizations	Administration of volunteer service programs. Study and analysis of volunteer personnel process.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	454	Human Services for At-Risk Youth	Overview of policy and programs affecting at-risk youth; examines risk factors and programmatic solutions to them.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	458	International Tourism	Global examination of international tourism and its significance as a vehicle for social and economic development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
RTM	475	Entrepreneurial Recreation and Tourism	Examines the development, management, and future of for-profit ventures in recreation and tourism.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		Pre-requisites: Recreation & Tourism Mgt students
RTM	486	Special Events Management	Principles of programming and managing special events for diverse populations. Class plans, conducts, and evaluates a community special event. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	487	Special Events Management, Advanced	Advanced principles of special event sponsorship, public relations, marketing, contracting, risk management, and financial management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Completed RTM 486, or REC 486 or RTM 486 with a grade of C or greater
RTM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
RTM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		Pre-requisites: must have a GPA of 2.0 or greater
RTM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
RTM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	580	Practicum		N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		

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RTM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RUS	101	Elementary Russian	Structural grammar and basic vocabulary. Introduces and reinforces aural/oral reading and writing skills. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
RUS	102	Elementary Russian	See RUS 101. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
RUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
RUS	201	Intermediate Russian	Systematic review of grammar. Develops vocabulary through reading and writing. Drill in aural/oral skills. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
RUS	202	Intermediate Russian	See RUS 201. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
RUS	211	Basic Russian Conversation	Intensive aural/oral drill to supplement reading and grammatical skills acquired in RUS 101, 102, 201, and 202. Required of Russian majors. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
RUS	212	Basic Russian Conversation	See RUS 211. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
RUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	311	Russian Composition and Conversation	Develops writing ability and oral expression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 202 with C or better
RUS	312	Russian Composition and Conversation	See RUS 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 202 with C or better
RUS	321	Foundations of Russian Literature	Literary movements, prose, poetry, and drama from early Kievan writings to 19th-century works of Pushkin, Lermontov, Gogol. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	
RUS	322	Great Russian Writers of the 19th Century	Surveys the great age of prerevolutionary Russian prose, including works of Gogol, Turgenev, Dostoevski, Tolstoy, and Chekhov. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	323	Modern Russian Literature and the Soviet Legacy	See also SLC 323. 20th-century Russian writers: their prose, poetry, drama; problems of the writer in Soviet and post-Soviet society. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
RUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	411	Advanced Composition and Conversation I	Improves aural discrimination and self-expression in oral and written skills, emphasizing vocabulary building. Subject materials drawn from current post-Soviet-Russian publications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 312 with C or better
RUS	412	Advanced Composition and Conversation II	See RUS 411.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 312 with C or better
RUS	417	Applied Russian Phonetics	General improvement in the student's language skills through aural/oral training in Russian phonology and an analysis of Russian orthography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites: RUS 102 with C or better
RUS	420	Russian Poetry	Development of Russian poetry from its beginnings to the present, including both native and emigre poets. Topics in criticism and the study of poetics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: RUS 312 with C or better

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RUS	421	Pushkin	Pushkin's poetry, plays, and prose fiction, including Eugene Onegin, The Little Tragedies, Tales of Belkin, Queen of Spades and The Captain's Daughter. Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	423	Dostoyevsky	Dostoyevsky's major works of fiction, including <i>Crime and Punishment</i> and <i>Brothers Karamazov.</i> Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	424	Tolstoy	Tolstoy's major works, including War and Peace and Anna Karenina. Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	425	Chekhov	Chekhov's major works, representative short stories and major plays, including <i>The Cherry Orchard</i> and <i>Three Sisters.</i> Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	430	Russian Short Story	Detailed study of representative works of the Russian short story genre. Includes authors from both Imperial and Soviet Russia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: RUS 312 with C or better
RUS	441	Survey of Russian Culture	Interplay of artistic, social, and political forces in the development of Russian culture from the Kievan period to the present. Exclusive use of Russian language source materials.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G & H	Pre-requisites: RUS 312 with C or better
RUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
RUS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
RUS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
RUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	495	Russian for Heritage Speakers	Generates professional proficiency by developing advanced communicative and written competency in standard literary Russian.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
RUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
RUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
RUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
RUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SBS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	200	Introduction to Social and Behavioral Sciences	Overview of the social and behavioral sciences, indicating their contributions to society and emphasizing interdisciplinary integration	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	300	Interdisciplinary Approaches to Social and Behavioral Sciences	Interdisciplinary approach to the study of social life.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	301	Cultural Diversity	Socially structured differences in historical and cross-cultural perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(L or SB) & C	
SBS	302	Qualitative Methods	Basic methodological issues in the systematic application of qualitative analysis of human social life. Surveys range of qualitative methods used by social and behavioral scientists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	303	Quantitative Methods	Concepts underlying design and implementation of quantitative research methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	304	Social Statistics I	Statistical techniques of the social and behavioral sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SBS	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.
SBS	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SBS	351	Population Geography	Demographic patterns. Spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: must have completed MAT 117,or119, or142, or 170,or 210 with a grade of C or greater; or be currently enrolled in one of these
SBS	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SBS	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SBS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	404	Social Statistics II: Multivariate Analysis	Analysis of variance, multiple regression, dummy variable regression, path analysis, and related topics. Computer application to problem solving.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: must have completed SBS 303 and SBS 304 with a grade of C or greater.
SBS	410	Topics in Identity/Difference	Topics which focus on race/ethnic, gender, sexual or cultural identity/difference. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	430	Topics in Power/Knowledge	Selected topics concerning the effects of political and social institutions on perceptions of politics and political culture. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	440	Family Studies	Theoretical frameworks for analyzing the development of family systems. Impact of social and economic conditions on family forms. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	447	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SBS	450	Topics in Local/Global	Examines links among social, political, economic changes at local, national, global levels. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SBS	460	Urban Studies	Studies local and global urban issues such as social geography, political economy, culture and social space, urban social diversity. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	461	Program Evaluation and Policy Research	Examines design, data collection/analysis, and political/ethical issues in planning and evaluating social programs and policies in community organizations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: AJS 302, COM 308, PSY 290, SBS 302 or SBS 303
SBS	480	Global Justice	Explores questions of justice that cross national borders, including delivery of foreign aid, immigration, and military intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
SBS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SBS	490	Senior Thesis I	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student. First part of a six-semester-hour sequence, followed by SBS 491.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	491	Senior Thesis II	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student. Second part of a six-semester-hour sequence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SBS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
SBS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		

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SBS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
SBS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SCM	300	Global Supply Operations	Resources and information to create and deliver products globally. Interfirm systems and industry supply chains. Customer, producer, and employee perspectives. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and min 56 earned hours; ACC 241, CIS 105 or CIS 220, and ECN 221 with a grade of C or greater.
SCM	301	Supply Chain Management	Examines the purchasing, materials, and logistics management areas. Presents techniques for acquiring, storing, processing, and moving material inventory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		
SCM	303	Honors Global Supply Operations	Explores the principles, concepts, and tools of supply chain management, with emphasis on how these are applied in the business world.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: Must be an Honors student; ACC 241, CIS 105, and ECN 221 with a grade of C or better
SCM	345	Logistics Management	Logistics and supply chain activities emphasizing integration of transportation, inventory, warehousing, facility location, customer service, packaging, and materials handling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisite: W.P. Carey Supply Chain Management BS student; Co- or Pre-requisite: SCM 300 or 303 with a grade of C or better or be currently enrolled or co-enrolled.
SCM	355	Supply Management	Management of the supply function, including organization, procedures, supplier selection, quality, inventory decisions, and price determination.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 300 or 303 with C or better
SCM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
SCM	432	Planning and Control Systems for Supply Chain Management	Planning and control systems for product and service flows in supply chain: production planning, master scheduling, MRP, ERP, inventory management. fee	N	LAB	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.	L	Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 345 with C or better; Pre/Co-requisite: SCM 355
SCM	440	Quality Management/Measurement	Quality management and measurement, relationships with suppliers and customers, quality awards, certifications, programs, tools for process improvement and cost analyses.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; Pre-requisites: SCM 300 with a grade of C or greater or be currently enrolled.
SCM	455	Research and Negotiation	Current philosophy, methods, techniques for conducting strategic and tactical supply chain research and negotiations. Includes supplier price and cost analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 355 with a grade of C or greater
SCM	463	Global Supply Chain Management	Supply chain activities in international business with special emphasis on management of transportation, global sourcing, customs issues, and facility location in a global environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey BS or BA student; Must have completed SCM 300 with a grade of C or greater.
SCM	479	Supply Chain Strategy	Integrated supply chain strategies synthesizing supply management, production, logistics, and enterprise systems. Provides a comprehensive perspective of supply chain management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 432 with a grade of C or greater
SCM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-6	L	Pre-requisites: Must be an Honors student
SCM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		Pre-requisite: SCM 300 or SCM 303
SCM	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
SCM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
SCM	502	Operations and Supply Management	Contemporary management issues, including environmental, project, and supply chain management; new product development; quality control; TQM.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey MBA students
SCM	511	Integrated Supply Chain Management	Management of sourcing, operations, and logistics as an integrated process.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	515	Decision Models for Supply Chain Management	Decision modeling approaches for supply chain management such as optimization, simulation, and decision analysis. Emphasizes spreadsheet-oriented approaches.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		

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SCM	521	Supply Management and Negotiation	Selecting, developing, and executing appropriate sourcing strategies and processes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	532	Supply Chain Cost and Design Issues	Strategic design and development of supply chains. Focus on cost-management tools applied to supply chain design and supplier management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	541	Logistics in the Supply Chain	Critical issues for customer perception of supply chain performance, including inventory planning, transportation, warehousing, information technology, and integrated logistics service.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	551	Operations Planning and Execution	Managing the conversion of raw materials to finished goods, including scheduling, work-in-process inventory management, and postponement/customization.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	581	Management of Technology and Innovation	Technology life cycles, technology forecasting, new product development process, innovation teams, innovation best practices.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	586	High-Technology Project Management	Project management processes for high-technology organizations, including planning, scheduling, team development, and control.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-3		
SCM	587	Project Management	Planning, scheduling, and controlling of projects in R & D, manufacturing, construction, and services. Project selection, financial considerations, and resource management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	588	Strategic Project Management	Overview of strategic project management processes, project planning and control, project portfolio management, resource allocation, management of strategic project partners.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-3		
SCM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
SCM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	N	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
SCM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
SCM	300	Global Supply Operations	Resources and information to create and deliver products globally. Interfirm systems and industry supply chains. Customer, producer, and employee perspectives. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BS student, Global Management student with Professional or Conditional status or a Food and Nutrition Management student
SCN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SCN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SCN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SCN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SCN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SCN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SCN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		

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SDE	510	Middle Grade Curriculum	Philosophical, historical, social foundations, and rationale for middle/junior high school education. Emphasizes the middle/junior high school student, teacher, and related philosophy, organization, and programs. Credit is allowed for only SDE 510 or 410.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	520	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	525	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	530	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	535	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SDE	410	Middle Grade Curriculum	Philosophical, historical, social foundations, and rationale for middle/junior high school education. Emphasizes the middle/junior high school student, teacher, and related philosophy, organization, and programs. Credit is allowed for only SDE 410 or 510.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SDE	420	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: SED 403 with D or better or currently enrolled
SDE	425	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: SED 403 with D or better or currently enrolled
SDE	430	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: SED 403 with D or better or currently enrolled
SDE	435	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SDE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
SED	502	Equity in Mathematics and Science Education	Introduces equity issues in science and mathematics as they relate to gender, social class, and ethnicity. Examines current research in these areas.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	2-3		
SED	520	Science Methods for Early Adolescence	Examines the interrelationships between theory and practice in teaching science.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	523	Middle School Curriculum and Organization	Overview of the organization, curriculum, and philosophy of the U.S. public school system with emphasis on the middle school.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	528	Organizing and Managing the Middle/Secondary Classroom	Planning and delivering instruction; organizing and managing classrooms; making adaptations for English language learners and students with special needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	529	Dynamics of Effective Teaching	Explores and applies new research regarding learning, motivation, and retention. Has immediate application and results for classroom teachers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	530	Introduction to Middle School Concept, Philosophy, and Curriculum	Overview of the concept, curriculum, and philosophy of the U.S. public school system with emphasis on the middle school.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	533	Improving Instruction in Secondary Schools	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	533	Improving Instruction in Secondary Schools	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

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SED	544	Creating Classroom Climates	Emphasizes classroom management and instructional strategies for establishing positive classroom climates that facilitate learning. Includes field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	547	Teaching Mathematics in the Middle Grades (5-9)	Strategies and methodologies to teach mathematics in the middle grades (5-9).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	548	Teaching Geometry 5-8	Practical ideas and activities for teaching informal geometry grades 5-8, based on research on how students learn geometry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	560	Teaching Mathematics with Technology	Strategies and methodologies to teach mathematics with technology, focusing mainly on the middle grades (5-9).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	561	Teaching Science with Technology	Strategies and methodologies for effective technology-enhanced science classrooms and improved learning. Models student-driven inquiry teaching throughout the course.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	577	Issues and Trends in Secondary Education	Analyzes lay and professional reports; problems and issues in American secondary education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	711	Secondary Curriculum Development	Theories and processes of developing curriculum; evaluation of research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must have earned a C or better in SED 522 and a Y in SED 478 or SED 578
SED	722	Improvement of Instruction in the Secondary School	Evaluates the research; issues and theories related to the improvement of instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must have earned a C or better in SED 533
SED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	501	Introduction to Effective Instruction	Introductory course for certification program in secondary education. Emphasizes developing basic classroom management, instruction, and evaluation. Includes a field assignment of at least 120 hours.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	501	Introduction to Effective Instruction	Introductory course for certification program in secondary education. Emphasizes developing basic classroom management, instruction, and evaluation. Includes a field assignment of at least 120 hours.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	520	Science Methods for Early Adolescence	Examines the interrelationships between theory and practice in teaching science.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	533	Improving Instruction in Secondary Schools	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	533	Improving Instruction in Secondary Schools	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	564	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SED	576	Field Experience	Applies course content in secondary and middle school science and mathematics classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	0-3		
SED	576	Field Experience	Applies course content in secondary and middle school science and mathematics classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	0-3		
SED	577	Issues and Trends in Secondary Education	Analyzes lay and professional reports; problems and issues in American secondary education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: College of Teacher Education and Leadership MEd students
SED	579	Apprentice Teaching in Secondary Education	Apprentice teaching in secondary school classrooms. Must be taken four times for a total of 9 semester hours. Lab, field experience. Fee.	N	FLD	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SED	111	Exploration of Science Teaching	General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
SED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	321	Critical Issues in Secondary Education	Examines perspectives of critical issues in contemporary education and encourages students to think critically and to develop their own viewpoints.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Co-requisites: Secondary Education student, SED 322, RDG 323, SED 397 and one of the following: SED 480, SED 481, BIO 482, LSC 482 or MTE 482 OR PDS (Professional Development School) student as appropriate

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SED	322	Classroom Leadership in Secondary Schools	Theories and practices for managing and maintaining secondary classrooms for learning; strategies for home/school communication; and leadership roles for teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Secondary Education student, SED 321, RDG 323, SED 397 and one of the following: SED 480, SED 481, BIO 482, LSC 482 or MTE 482 OR PDS (Professional Development School) student as appropriate
SED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	397	Field Experience II	Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Secondary Education student, SED 321, SED 322, RDG 323 and one of the following: SED 480, SED 481, BIO 482, LSC 482 or MTE 482 OR PDS (Professional Development School) student as appropriate
SED	403	Middle and Secondary School Principles, Curricula and Methods	Advanced level of development of knowledge and skills of instructional planning and methods of teaching and evaluating in the secondary school. Observation/participation required.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	403	Middle and Secondary School Principles, Curricula and Methods	Advanced level of development of knowledge and skills of instructional planning and methods of teaching and evaluating in the secondary school. Observation/participation required.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SED	405	Methods in Secondary Science Teaching	Explores effective instructional practices in the secondary science classroom and different documents that inform the field of science instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	464	Middle-School Curr/Org	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	478	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SED	478	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SED	478-W	Student Teaching in the Secondary School	The practice of teaching; relationship of theory and practice in teaching.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-12		Pre-requisites: Secondary Education student or PDS (Professional Development School) student as appropriate
SED	480	Special Methods of Teaching Social Studies	Interdisciplinary approaches; production and collection of materials.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Secondary Education BAE student; Co-requisites: SED 496
SED	480	Special Methods of Teaching Social Studies	Interdisciplinary approaches; production and collection of materials.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	481	English Teaching Methods for Secondary Schools	Instructional, organizational, and presentation methods for English in secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	482	Science Teaching Methods for Secondary Schools	Methods of instruction, organization, and assessment of science for secondary and middle grade schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SED	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	496	Field Experience	Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisites: Initial Teacher Certification Program Admission
SED	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		

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SED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SEM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-3		
SEM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-4		
SEM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	3.		If you have credit for PHY 552, or MSE 552, or NAN 552, you may not enroll in SEM 552
SEM	553	Electron Microscopy Laboratory I	Lab support for SEM 552.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	1.		
SEM	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent-beam diffraction, and electron holography. Novel developments and applications.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	3.		
SEM	555	Electron Microscopy Laboratory II	Lab support for SEM 554.	N	LAB	N	OPT	Graduate College	Center for Solid State Science	3.		
SEM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
SEM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
SEM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-4		
SEM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Center for Solid State Science	1-12		
SEM	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		

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SEM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-15		Pre-requisites: Science & Engr of Materials PhD students
SEM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Center for Solid State Science	1-15		Pre-requisites: Science & Engr of Materials PhD students
SES	100	Introduction to Exploration	Science and engineering of Earth, solar system, and space exploration. Experimental design, engineering design; teaming; the professions of science and engineering. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	CS	
SES	101	Earth, Solar System, and Universe I	Basic principles of geology and astronomy combined to examine the history of the universe, the solar system, and Earth. Both SES 101 and SES 103 must be taken together to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
SES	102	Earth, Solar System, and Universe II	Continuation of SES 101. Basic principles of geology and astronomy combined to examine the history of the universe, the solar system, and Earth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
SES	103	Earth, Solar System, and Universe Laboratory I	Studies astronomical and geological processes through observations and measurements. Requires field trips and evening telescopic observing. Both SES 101 and SES 103 must be taken together to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3	SQ	
SES	104	Earth, Solar System, and Universe Laboratory II	Studies astronomical and geological processes and life through observations and measurements. Requires field trips and evening telescopic observing. fee	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
SES	111	Exploration of Science Teaching	General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
SES	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
SES	210	Engineering Systems and Experimental Design	Scientific and engineering design process. Defining scientific problems, generating and evaluating engineering solutions. Computer modeling, technical writing and teaming skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: CHM 113 or PHY 121 with D or better or currently enrolled; ENG 101, ENG 105 or ENG 107 with D or better or currently enrolled; MAT 265 or MAT 270 with D or better or currently enrolled
SES	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
SES	311	Essentials of Astrobiology: Exploration for Life in the Universe	Origin and evolution of life on Earth. Strategies to explore for life in the cosmos. Possible field trips to explore regional geological analogues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: MAT 265 or MAT 270; PHY 121 or CHM 113 or BIO 188
SES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
SES	410	Senior Exploration Project I	Design and development of an Earth, solar system, or space exploration project. Conceptualization, design, development, deployment, data analysis, communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: ENG 101, ENG 105 or ENG 107; SES 311
SES	411	Senior Exploration Project II	Continuation of SES 410. Development of Earth, solar system, or space exploration project. Conceptualization, design, development, deployment, data analysis, communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: ENG 101, ENG 105 or ENG 107; SES 410
SET	540	Explosives Surety	Physical and chemical nature of explosives; detonation models; initiating systems; commercial, military, and improvised explosives; investigations; and counter measures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	560	Physical Security I	Systems engineering principles and concepts to guide the design, analysis, and implementation of protection systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	561	Physical Security II	Scientific theory behind analysis of physical protection systems. Includes probability and statistics, data collection techniques, algorithm processing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	570	Security System Instrumentation	Operating principles, limitations, and test procedures of security instrumentation and sensors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
SET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		

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SET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
SGS	303	Contemporary Global Trends	Studies processes of global change and institutions post-WWII to present, including concepts and perspectives on conditions that foment problems.	N	LEC	N	OPT	Liberal Arts and Sciences	INACTIVE School of Global Studies (CLAS)	3.		
SGS	101	Thinking Globally: The Individual and Authority	Examines the changing notions of the individual and authority over history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
SGS	102	Thinking Globally: Technology and Nature in World Settings	Examines changing interactions among humans and nature, geographic systems, global demography, and environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	G	
SGS	103	Contemporary Global Trends	Gives a grounding in patterns of international politics and global social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
SGS	111	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H & G	Credit is allowed for only HST 101 or SGS 111
SGS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
SGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(HU or SB) & G	
SGS	294	Special Topics		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	301	Principles of Global Studies	Presents current debates about globalization and subjects these to critical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102, 105 or 108 with C or better
SGS	304	Professional Global Career Development	Orients the student to working in global contexts and to thinking critically about careers in the global arena. Focuses on working in organizational settings distinctly global. Three modules: nation-state, corporations, and working international organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	305	Research Methods	Broad introduction to social science research methodology and design, particularly the methods used to analyze global problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	L	Pre-requisites:Eng 101 (or 107) and Eng 102 (or 105 or 108) with a grade of C or better
SGS	310	Global Urban Systems	Comparative approach focuses on relationship between development of comparative urban systems and environmental impacts at local, regional, global scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites:SGS 101 or SGS 301 and SGS 103 or SGS 303 with C or better
SGS	311	Urbanization in China	Explores contemporary and future Chinese urbanization from economic, built form, and environmental perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	320	Mechanisms of Governance	One of the fundamental issues in the social sciences concerns the problematic attainment of social order, which is the principal aim of governance. Presents the five principal mechanisms purported to account for social order, and illustrates these by providing empirical examples of each; includes film clips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102 with C or better
SGS	341	Humanitarian Crisis and International Intervention	Focuses on political, legal, and ethical issues raised by decision about military interventions in genocide and humanitarian crisis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	343	Religion, Nationalism, and Ethnic Conflict	Examines the role of religion in national and ethnic conflict in the contemporary world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & G	
SGS	344	Facing the Past: Truth, Memory, Denial After Atrocities	The past has never been so present as it is today. Over the last two decades, the world has shown an increasing interest in uncovering the hidden and forgotten histories of state-sponsored atrocities and acknowledging the fate of victims and survivors. Studies this movement for the recovery of truth, memory, and moral responsibility includes a wide range of actors and takes a number of different forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	381	Modern Southeast Asia	Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Singapore, Brunei, Indonesia, and Philippines since 1750: imperialism, revolution, and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G & H	

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SGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	441	Religion and Global Politics	Explores the nature and role of religion in international politics in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	G	
SGS	442	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	454	Gender, Culture, and Development	Economic, cultural, and sociopolitical contexts for understanding women's roles related to health, family, work, education, and politics in developing countries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(L or SB) & G	May not enroll in SGS 454, if received credit for WST 457
SGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
SGS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
SGS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6	L	Pre-requisites: Must be an Honors student
SGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	497	Honors Colloquium		N	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		
SGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-7		
SGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
SHS	101	American Sign Language I	Basic receptive/expressive conversational skills; basic grammar and syntax rules. Orientation to deafness and deaf culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	102	American Sign Language II	Further development of receptive/expressive conversation skills in ASL; finger spelling. Continued exploration of deaf culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: Must have completed SHS 101 with a grade of C or greater or be currently enrolled
SHS	105	Introduction to Human Communication Disorders	Introduces hearing, language, and speech problems in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SHS	201	American Sign Language III	Continued development of fluency in ASL with emphasis on more abstract concepts and the ability to narrate events.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: Must have completed SHS 102 with a grade of C or greater or be currently enrolled
SHS	202	American Sign Language IV	Further development of fluency in ASL with emphasis on literature, folklore, and signing narratives with multiple characters.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: Must have completed SHS 201 with a grade of C or greater or be currently enrolled
SHS	250	Introduction to Phonetics	Introduces English phonetics with emphasis on phonetic transcription, articulation, phonology, and disorders of speech.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		Pre-requisites: Must be an Honors student
SHS	310	Anatomical and Physiological Bases of Speech	Noncadaveric study of anatomical systems that underlie human speech and language, including respiration, phonation, articulation, and related nervous system processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	311	Physical and Physiological Bases of Hearing	Studies the physical characteristics of sound and of the structure and function of the human auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	350	Brain Memory and Language	Covers memory and language and their associated brain areas, and the resulting behavioral consequences of injury and disease.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	367	Language Science	Normative aspects and integration of language structure, comprehension, and production in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.	SB	

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SHS	375	Speech Science	Normative aspects of speech, hearing, and language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	376	Psychoacoustics	Introduces acoustics, cochlear anatomy and physiology, and the perception of sound.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	401	Introduction to Audiology	Introduces hearing disorders and the purposes and procedures for basic clinical tests of auditory function. Credit is allowed for only SHS 401 or 501.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	402	Clinical Methods and Treatment of Communication Disorders	Principles and techniques for planning speech and language intervention, including observation experiences.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	431	Developmental Speech Disorders	Introduces the nature of articulation, fluency, resonance, and voice disorders in childhood.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	450	Observation	Opportunity to obtain observation experience at the ASU Speech and Hearing Center or at external sites.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	465	Speech and Language Acquisition	Speech and language development in the normal child.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.	SB	
SHS	470	Developmental Speech and Language Disorders	Introduces the nature of speech and language disorders in children.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	485	Acquired Speech and Language Disorders	Introduces acquired speech and language disorders across the lifespan.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		Pre-requisites: Must be an Honors student
SHS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6	L	Pre-requisites: Must be an Honors student
SHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	496	Aural Rehabilitation	Approaches to aural rehabilitation of children and adults. Introduces educational audiology and assistive listening devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		
SHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-7		
SHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-3		
SHS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		Pre-requisite: Must be a student in either MS Communication Disorders or PHD Speech And Hearing Science.
SHS	501	Introduction to Audiology	Introduces hearing disorders and the purposes and procedures for basic clinical tests of auditory function. Credit is allowed for only SHS 501 or 401.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	502	Basic Audiometry	Covers the bases, purposes, rationales, and procedures for the core clinical tests of auditory function in adults and children.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	504	Amplification I	Operation, electroacoustic measurement, selection, and prescriptive fitting of amplification devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	505	Survival Sign Language	Facilitates effective manual and alternative methods of communication with deaf individuals in clinical settings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	508	Pediatric Audiology	Emphasizes the principles and procedures for early identification and management of congenital and early-onset hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	510	Amplification II	Verification and validation of hearing aid performance, benefit, and satisfaction. Fitting considerations for pediatric and geriatric populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	511	Auditory Perception by the Hearing Impaired	Psychophysical methods and behavioral aspects of hearing, with an emphasis on the perceptual consequences of sensorineural hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	512	Topics in Management of Medical Aspects of Speech-Language Pathology	Focuses on varying topics in management of medically based speech and language disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	513	Neurophysiology of the Auditory System	Focuses on the neurophysiology of the normal auditory system and on changes associated with hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		

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SHS	515	Instrumentation and Calibration	Electronic instruments used to produce, modify, and measure characteristics of sound. Measurement standards and methods for calibration of audiologic equipment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	516	Auditory Evoked Potentials	Electrophysiologic assessment of the peripheral and central auditory nervous system. Lecture, lab.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	517	Balance Assessment	Clinical analysis and treatment of balance disorders and dizziness.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	518	Auditory Rehabilitation	Study and clinical application of assistive technology and rehabilitative services for managing the effects of hearing impairment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	519	Auditory Pathologies and Disorders	Familiarizes students with major diseases, pathologies, and disorders of the human auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	520	Otoneurologic Applications in Audiology	Advanced otologic, neurologic, and audiologic approaches in the differential diagnosis of peripheral and central disorders of the auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	521	Auditory Aging	Focuses on aging and related effects on the auditory system and audition.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	522	Hearing Conservation	Examines the prevention, identification, physiological effects, and management of hearing loss due to noise exposure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	524	Counseling in Communication Disorders	Theories of counseling emphasizing the psychological and emotional impact and management of individuals with communication disorders and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2-3		
SHS	525	Audiology Practice Management	Business practice issues, quality assurance, and professional ethics for the practicing audiologist.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	545	Speech Perception by the Hearing Impaired	Focuses on the perception of speech by normal-hearing and hearing-impaired listeners.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	552	Physiological Measures of Auditory Function	Focuses on the measurement of otoacoustic emissions and acoustic immittance.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	555	Cochlear Implants	Covers the research and clinical aspects of cochlear implantation with a focus on the principles of speech coding strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	565	Speech and Language Acquisition	Speech and language development in the normal child.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	566	Psychology of Language	Psycholinguistic study of the production and comprehension of language across the lifespan.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	567	Neural Bases of Communication Disorders	Neuroscience and its application to matters of normal and disordered communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	570	Communication Disorders and Multicultural Populations	Studies racial and ethnic biases and the communication behaviors and disorders in various cultural groups.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	571	Augmentative Communication and Language Programming	Focuses on individuals across the age span who are unable or who are at risk for being unable to communicate with spoken language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	572	Language Assessment and Intervention in Infants and Toddlers	Focuses on the birth to 3-year-old population who are at risk for or who have communication and language disabilities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	573	Language Assessment and Intervention with School-Age Populations	Focuses on later language development, linguistic demands of academic settings, assessment and intervention strategies for older children and adolescents.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	574	Management of Low-Incidence Speech Disorders	Focuses on assessment and intervention of people with voice, fluency, and craniofacial disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	575	Aphasia and Related Neurogenic Language Disorders	Assessment and treatment of acquired neurolinguistic impairment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	576	Neuromotor Speech Disorders	Evaluation and treatment of the dysarthrias and apraxia of speech. Emphasizes acquired adult disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	578	Disorders of Voice	Communication disorders related to dysfunction of the phonatory and resonance systems of voice production, assessment, and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	579	Feeding and Swallowing Disorders Across the Lifespan	Focuses on individuals across the age span who have feeding and/or swallowing disorders. Presents assessment and treatment strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	581	Right Hemisphere Syndrome, Traumatic Brain Injury, and Dementia	Studies the nature, characteristics, and clinical management of cognitive and communicative impairments accompanying right hemisphere damage, TBI, and dementia.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	582	Differential Diagnosis of Communication Disorders	Procedures for assessing speech/language disorders in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SHS	585	Articulation and Phonology: Assessment and Intervention	Assessment and treatment of developmental articulation and phonological disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	586	Language Sampling Methods in Speech-Language Pathology	Focuses on the use of language sampling and analyzes techniques to assess children's language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	587	Language Assessment and Intervention with Preschool Populations	Focuses on preschool language disorders and assessment and intervention strategies for preschool children.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	589	Audiology Grand Rounds	Grand Rounds bridges clinical and academic knowledge through case studies, application of emerging research, and clinical workshops.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	596	Aural Rehabilitation	Approaches to aural rehabilitation in children and adults. Introduces educational audiology and assistive listening devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-15		
SHS	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-15		
SHS	101	American Sign Language I	Basic receptive/expressive conversational skills; basic grammar and syntax rules. Orientation to deafness and deaf culture.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		
SLC	150	Introduction to East Asian Culture	Introduces the cultures of China, Japan, and Korea.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	

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SLC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SLC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	201	Introduction to Linguistics	Examines the nature and diversity of world languages, linguistic structures and functions of language, language variation, pragmatics, and language acquisition.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	202	Introduction to Literary and Cultural Theory	Interdisciplinary approaches to understanding culture and cultural production (literature, film, visual art, performance) in different countries.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	323	Survey of Literature of the Soviet Era in Translation	Surveys main literary movements, prominent authors, most significant works of prose, poetry, and drama of the Soviet period, 1917-1991.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
SLC	385	Career Development for Language Majors	Theoretical and practical aspects of career planning and development; research focus on language-related careers.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 101 or ENG 107 with D or better; ENG 102 or ENG 108 with D or better or currently enrolled
SLC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	400	Linguistics	Introduces the analysis of language and its use in social contexts. Topics: morphology, phonology, pragmatics, semantics, syntax, and variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	SB	Pre-requisite: Junior academic level
SLC	401	Translation Theory and Practice	Translation theories and professional practices and ethics; bibliography, computer technology, and sample texts for natural and social sciences and humanities.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	415	Bilingualism and Languages in Contact	Analyzes linguistic aspects of bilingualism, e.g., pidgins and creoles, code-switching, and other contact phenomena; simultaneous/sequential bilingual language acquisition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 400 with D or better or currently enrolled
SLC	420	Foreign Literature in Translation	Not for language majors (except in Asian languages and Russian); open to language majors as a related-area course. Graduate students by permission.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
SLC	421	Japanese Literature in Translation	Readings selected by theme or genre or period from various works of Japanese literature in English translation. May be repeated when topics vary. Graduate students by permission.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
SLC	440	Film Theory and Criticism	Examines the major positions and issues in film theory from an historical perspective. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Prerequisite(s): ENG 102, 105 or 108 with C or better; FMS 100 with C or better; Credit is allowed for only FMS 461 or SLC 440
SLC	461	Feminist Political Writing in Contemporary Europe	Examines the discourse of gender-politics in Central Eastern Europe before and after Soviet hegemony.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 200 with D or better or currently enrolled; ENG 101 and 102 (or 105) OR ENG 107 and 108 with C or better
SLC	472	Literature and Politics in Pre- and Post-Communist Europe	Interdisciplinary examination of the cultures of Eastern Europe from WWI to the present.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 200 with D or better or currently enrolled; ENG 101 and 102 (or 105) OR ENG 107 and 108 with C or better
SLC	476	Literature and Film in 20th-Century Eastern Europe	Evaluates literary texts and films as a massive propaganda machine of the totalitarian state.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	479	Introduction to Teaching Foreign Languages	Introduces teaching methodologies, language learning, and current best practice in teaching foreign languages in U.S. middle and high schools.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	480	Methods of Teaching Foreign Languages	Teaching foreign languages and literatures at secondary and college levels. Does not meet the Liberal Arts and Sciences General Studies requirement for humanities and fine arts. Required for admission to SED 478.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	481	Technical and Scientific Translation	Resources, practices, strategies, and lexicon for translation of professional texts in subjects such as engineering, architecture, agriculture, computer technology, electronics, and physical and biological sciences.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SLC 401 completed with D or better or currently enrolled
SLC	482	Business and Financial Translation	Resources, practices, strategies, and lexicon for translation of professional texts in subjects such as economics, finance, insurance, management, marketing, accounting, advertising, and real estate.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SLC 401 completed with D or better or currently enrolled
SLC	483	Medical and Legal Translation	Resources and strategies for translation of professional texts in subjects such as medicine, nursing, public health, criminal justice, and international law.	N	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	485	Problems of Literary Translation	Theory and practice with emphasis on application through individual translation projects. May be repeated for a total of 6 semester hours.	N	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 401 with D or better or currently enrolled
SLC	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Honors students only
SLC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student

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SLC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SLC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SLC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SLC	515	Second-Language Acquisition	Discusses and applies theories of second-language acquisition.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 400 with D or better
SLC	525	Second-Language Acquisition Trends and Issues in Foreign Language Teaching	Advanced methods seminar, designed for experienced teachers.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SLC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLV	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	304	Computational Linguistics of Slavic Languages	Information technology and Slavic languages, including Web design, digitalized resources, information retrieval, math/statistical analysis, and PERL.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	CS	
SLV	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	440	History of Slavic Languages	Comparative evolution of East Slavic, West Slavic, and South Slavic languages from the earliest record to the standardizing of national languages in the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	SB	

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SLV	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLV	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SLV	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SLV	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SLV	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SLV	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	Students may not sign up for SOC 101 who have received a D or better in SOC 301.
SOC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	220	Sport and Society	Examines sports in American society as a source of socialization and an institution where gender, race/ethnicity, and class interact.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
SOC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisites: Must be an Honors student
SOC	301	Principles of Sociology	Intensive and critical analysis of the concepts of sociology. Credit is allowed for only SOC 301 or 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	Students may not sign up for SOC 301 who have received a D or better in SOC 101.
SOC	312	Sociology of Adolescence	Cultural values and the social processes that help explain the development of the phenomenon of modern adolescence, including investigation of adolescent subcultures and cross-cultural references.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	321	Sociology of Work	Social and cultural analysis of industry. Occupational roles, status, and social participation of workers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	331	Environmental Sociology	Analyzes human organizational responses to population growth, technological change, and environmental stressors on both a national and global scale.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	332	Urban Sociology	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	333	Population	Global trends in population growth, composition, and distribution; theories, policies, and impact of population trends on environmental quality and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	334	Technology and Society	Development of technology in relation to society, work, science, the environment, public health, and cultural values related to social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	340	The Sociology of Deviance	Sociological analysis of stigmatized behaviors and conditions, including the causes, effects, and management of stigma.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	341	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G & H	

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SOC	360	Sociological Psychology	Interaction patterns between the sociocultural order and individuals; socialization process; norms, roles, and statuses; collective behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	363	Men and Masculinity	Sociological analysis of how masculine identity is defined, negotiated, and variously constructed depending upon class, ethnicity, age, and sexual orientation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	365	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	375	Contemporary American Jewish Identities	Analyzes the complexity and diversity of the contemporary American Jewish community in religious and secular affairs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	(HU or SB) & C	
SOC	390	Social Statistics I	Descriptive and inferential statistical methods for analysis of social data. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	CS	
SOC	391	Research Methods	Methods of social science research, including the fundamental assumptions underlying research, critique, research design, data collection, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	Prerequisites: SOC 101 (or SOC 301 or CDE 232) and SOC 390. Credit is allowed for only FAS 361 or SOC 391
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	415	The Family	Family considered from the institutional viewpoint; its historical development and its adaptation to a changing culture; the family system in many cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	416	Marriage Problems in Contemporary Society	Marital and family problems in today's society from the viewpoint of personal and cultural adjustment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	417	Family Violence	Current research and theories about domestic violence including child maltreatment, spousal aggression, and courtship violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	418	Aging and the Life Course	Social aspects of aging. Theoretical and methodological perspectives and problems of aging such as life satisfaction, retirement, and adjustment to role loss.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	420	Sociology of Religion	Interrelationship of culture, society, and religion; religion and social stratification; religious, economic, and political institutions; social change and religion. Emphasizes American society and institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	423	Social Class and Stratification	Classical and contemporary theories about who gets what and why. Examines social and economic inequalities by class, gender, and race/ethnicity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	424	Women and Health	Women as healthcare workers and issues of health, illness, and healthcare for women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	427	Sociology of Health and Illness	Social aspects of illness and sociological analysis of the healthcare system and its practitioners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	429	Sociology of Law	Examines law as an institution; its origins, operations, and consequences. Emphasizes contemporary legal issues and problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	433	Applied Demography	Science of population analysis. Covers techniques for measuring fertility, mortality, migration, and population composition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	446	Sociology of Crime	Process of criminalization, exploring the behavior of the definers of crime, and the behavior of those defined as criminals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	448	Epidemics and Society	How epidemics occur; how they are perceived in society; how epidemics affect society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	451	Comparative Sociology	Cross-cultural study of basic social institutions; the methodology of cross-cultural research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	464	Sociology of Women	Sociological analysis of the development, nature, and consequences of women's position in contemporary society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	(L or SB) & C	
SOC	474	African Americans in Modern Society	Social and cultural heritage of black Americans; achievements and current trends.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
SOC	483	History of Social Thought	Social thought in human culture. Background of modern sociology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	486	Contemporary Theory	Contemporary issues and crises in social theory with major focus on particular theorists. Ideological factors in theory, philosophical issues, the nature of theory and its relationship with methodology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisites: Must be an Honors student
SOC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student

Subject	Catalog Nbr	Course Title Long	Descr Long	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
SOC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
SOC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	501	Practicum in Survey Research	Research practicum in survey fieldwork, analysis, and reporting in the Phoenix Area Study.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	502	Practicum in Survey Research	Continuation of SOC 501.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	503	Sociology as a Profession I	Becoming and working as a sociologist, including how to write a vita, choose a thesis topic, or find dissertation data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	504	Sociology as a Profession II	Becoming and working as a sociologist, including how to write a vita, choose a thesis topic, or find dissertation data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	505	Applied Regression Analysis	Multiple linear regression topics relevant to sociological data analysis. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	507	Social Statistics IIA: Categorical Data Analysis	Logistic regression and related topics relevant to categorical data analysis in sociology. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	508	Social Statistics IIB: Structural Equation Analysis	Structural equation models using LISREL and other computer packages. Topics include multiple group analyses and ordinal endogenous variable models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	509	Social Statistics IIC: Event History Analysis	Proportional hazards models and other methods for analyzing longitudinal data and establishing hazard rates of events for exploratory variables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	512	Secondary Data Analysis	Works with existing data to produce a publishable article.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	515	Studies of the Family	Current developments in the study of marriage and the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	516	Family Demography	Current developments in the study of family demography.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	519	Graduate Medical Sociology	Current developments in medical sociology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	523	Social Stratification	Overviews significant themes, issues, and bodies of work in the field of social stratification, a fundamental topic of sociological inquiry.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	533	Demographic Methods	Emphasizes methods and techniques in demographic analyses such as life tables.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	585	Sociological Theory	Analyzes major sociological theories, from classical to contemporary.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	588	Methodological Issues in Sociology	Basic methodological issues in the study of human social life. Emphasizes a limited number of key issues and approaches to research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	210	Sociology of Murder	Sociological perspectives on various forms of murder and types of murderers. Also considers forms of punishment for murder.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SOC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	301	Principles of Sociology	Intensive and critical analysis of the concepts of sociology. Credit is allowed for only SOC 301 or 101.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	324	Work and the Workplace	Historical and comparative examination of changes in the structure and meaning of work and current shifts in people's work lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	
SOC	328	Migration	Introduces the definition and analysis of migration in all forms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	332	The Modern City	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have taken SOC 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.
SOC	340-W	Sociology of Deviant Behavior	Sociological analysis of stigmatized behaviors and conditions, including the causes, effects, and management of stigma.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	341-W	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	
SOC	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G & H	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3-4	(HU or SB) & G	

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SOC	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	360	Sociological Psychology	Interaction patterns between the sociocultural order and individuals; socialization process; norms, roles, and statuses; collective behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	364	Popular Culture	Studies the social approaches to popular culture, focusing on the function of various forms (literature, film, theatre, and music).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	365-W	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	366	Film and Society	Studies the social approaches to film as an art form, mass medium, and ideological construct.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SOC	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	400	Perspectives on Aging	Broad overview of gerontological issues; e.g., physical aging, retirement, living options, caregiving, theoretical background, death.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	418-W	Aging and the Life Course	Examines aging as a process of change and adaptation over the lifespan, patterned by social, cultural, and historical forces.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	419	Organizations and Technological Change	Explores the increasing impact of information technology on corporate, governmental, and private organizations. May involve fieldwork.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SOC	426	Social Inequality	Examines stability and change in social inequality based on age, class, ethnicity, gender, and race.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	443	Sociology of Corporations	Examines corporations as social institutions and the implications of their status as a legal person on politics, culture, and economy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	456	Political Sociology	Social factors associated with voting; nature and structure of the electorate and political parties and the nature of national and international power structure.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	457	Global Social Movements	Examines how groups mobilize across borders to pursue social goals, including equality, justice, peace, and salvation in a global context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	486	Contemporary Theory	Contemporary issues and crises in social theory with major focus on particular theorists. Ideological factors in theory, philosophical issues, the nature of theory and its relationship with methodology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	492	Honors Directed Study		N	THE	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SOC	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
SOC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
SOC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SOC	220	Sport and Society	Examines sports in American society as a source of socialization and an institution where gender, race/ethnicity, and class interact.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	332	Urban Sociology	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
SOC	341	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
SOC	365	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	390	Social Statistics I	Descriptive and inferential statistical methods for analysis of social data. Computer applications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SOC	416	Marriage Problems in Contemporary Society	Marital and family problems in today's society from the viewpoint of personal and cultural adjustment.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
SOC	417	Family Violence	Current research and theories about domestic violence including child maltreatment, spousal aggression, and courtship violence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	420	Sociology of Religion	Interrelationship of culture, society, and religion; religion and social stratification; religious, economic, and political institutions; social change and religion. Emphasizes American society and institutions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
SOC	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
SOS	100	Introduction to Sustainability	Introduces basic concepts, global trends, and local responses, philosophical, ethical, and cultural dimensions.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	110	Sustainable World	Lays the groundwork for understanding the fundamental geological, biological, and social processes that gave rise to the world we live in and continue to maintain its viability for human life.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	111	Sustainable Cities	Introduces technological, social, and cultural principles and innovations for cities under the notion of sustainability and sustainable development within the global, regional, and local contexts.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.	(HU or SB) & G	
SOS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOS	320	Society and Sustainability	Establishes an understanding of the human, social, and cultural dimensions of sustainability from multi- and interdisciplinary perspectives and at a variety of spatial and temporal scales.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.	SB	Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	321	Policy and Governance in Sustainable Systems	Explores the wide array of political questions that are raised when we view the Earth's environment as an integrated, global system.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	322	International Development and Sustainability	Historical roots of the idea of development; economic theories of growth and their implications for sustainability; interrelationship among population growth, food security, poverty, inequality, urbanization, technological change, international trade, and environmental change at local, regional and global scale.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	323	Sustainable Urban Dynamics	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	324	Sustainable Energy and Material Use	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better
SOS	325	The Economics of Sustainability	Applies economic principles to the allocation of environmental goods and services, external environmental effects, and environmental public goods; decision-making under uncertainty, adaptation to and mitigation of environmental change.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	326	Sustainable Ecosystems	How human activities and management practices alter biodiversity, ecosystem functioning, and the provisioning of ecosystem services; use of economic and other social science perspectives to estimate the value of ecosystem services; evaluation of options for achieving the sustainable flow of services from ecosystems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of D or better, or be currently enrolled
SOS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	School of Sustainability	School of Sustainability	3.	SB	Pre-requisites: Students who have credit for ASM 414, or SSH 414, may not enroll in SOS 414. Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
SOS	430	Sustainable Economic Development and Social Transformation	A clustered learning network on the application of sustainability principles to the evaluation of economic development strategies at the national, regional, and local levels, using case studies. May be repeated once for credit.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	431	Resilience and Sustainability	A clustered learning network on the application of resilience analysis to the evaluation and management of the sustainability of coupled social-ecological systems using case studies. May be repeated once for credit.	N	SEM	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	433	Sustainable Water Use	A clustered learning network on the problem of water scarce regions, includes insights from hydrology, engineering, biology, economics and public policy. May be repeated once for credit.	N	SEM	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	493	Honors Thesis		N	LEC	N	Z1	School of Sustainability	School of Sustainability	1-6	L	Pre-requisites: Must be an Honors student
SOS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	499	Individualized Instruction		Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-3		
SOS	510	Perspectives on Sustainability	University-wide course covering basic perspectives on sustainability. Uses case studies; faculty and students from engineering, architecture, social sciences, and natural sciences exchange ideas on the major challenges faced in forming a sustainable future at the local, national, and global levels.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	511	Quantitative Methods in Sustainability	Provides a sense of when, where, and how quantitative methods are used in studying questions related to sustainability; a road map for furthering quantitative skill sets; and opportunities to refresh and build some basic mathematical skills from selected topics in differential and integral calculus, linear algebra, and probability and statistics that will be required for further study.	N	LEL	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	512	Sustainable Resource Allocation	Microeconomic principles of resource allocation applied to environmental goods and services, external environmental effects and environmental public goods; decision making under uncertainty, adaptation to and mitigation of environmental change.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	513	Science for Sustainability	Carbon cycle, nutrient cycles, carbon and nutrients in the oceans, climate change, oxygen and ozone, solid waste pollution, urban air pollution.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		

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SOS	514	Human Dimensions of Sustainability	Concepts and definitions of the human dimensions of sustainability; the role of attitudes and values in shaping sustainability goals, practices, and programs; the diversity of values and socio-cultural contexts relating to sustainability; bottom-up and top-down sustainable policy development, social data collection methodologies.	N	SEM	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	515	Industrial Ecology and Design for Sustainability	The conceptual, ethical, and practical challenges in the design, manufacture, and life cycle performance of products; environmental evaluation via materials flow analysis and life cycle assessment; global economic, environmental, cultural, and social aspects of competitive and functional product development and manufacture.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	516	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		You may not enroll in SOS 516 if you have credit in GLG 547, or PAF 547, or BIO 515
SOS	530	International Development and Sustainability	Historical roots of the idea of development; economic theories of growth and their implications for sustainability; interrelationship among population growth, food security, poverty, inequality, urbanization, technological change, international trade, and environmental change at local, regional and global scale. Credit is allowed for only SOS 530 or SOS 322.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	532	Sustainable Urban Dynamics	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:May not enroll in SOS 532, if credit received for ASB 533
SOS	533	Sustainable Water	Hydrological, legal, political, and ecological implications of alternative water management strategies; effect of institutional and regulatory frameworks; changes in water demand and supply due to human (population growth, economic changes) and natural (drought, climate change) factors	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	534	Sustainable Energy and Material Use	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	535	Biodiversity and Ecosystem Services	How human activities and management practices alter biodiversity, ecosystem functioning and the provisioning of ecosystem services; use of economic and other social-science perspectives to estimate the value of ecosystem services; evaluation of options for achieving the sustainable flow of services from ecosystems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	4.		
SOS	550	Introduction to Sustainability and Organizational Strategies	Focuses on organizational strategies for technology companies competing in a global environment. Strategic and tactical decision implications of a life cycle value proposition; modeling and analysis for strategic decisions about product/service bundles and delivery mechanisms; innovation; technology, including the linkages to the firm strategy and empirical evidence; supply, demand, and value chain; research of laws, guidelines and international agreements.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	551	Water Policy and Management	Covers water policy and management focused on Arizona. Useful to anyone looking for a general background on water issues in Arizona or considering a career in water resources and environmental engineering, planning, or public policy. Divided into three major sections: the history of water resources development and hydrology of Arizona; water management in Arizona; and an examination of current issues and controversies.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	552	Advanced Earth Systems Engineering and Management	Advanced introduction to earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	559	Sustainable Technology and Management Capstone	Provides opportunity to demonstrate comprehension of the fundamental aspects that have been introduced in the classroom and the synthesis of these fundamental aspects into a demonstrable project that can be presented and defended.	N	STO	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	School of Sustainability	School of Sustainability	1-12		

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SOS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	School of Sustainability	School of Sustainability	1-12		
SOS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-15		
SOS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	School of Sustainability	School of Sustainability	1-15		
SP	431	Prose of Golden Age		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	107	Spanish for International Professions I	Accelerated program alternative to SPA 101, 102 sequence. Functional approach to needs of international professions. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.		
SPA	111	Fundamentals of Spanish	Primarily for students with two years of high school Spanish who need review to enter second-year study. Credit is allowed for only SPA 111 or both SPA 101 and 102. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		You may not sign up for SPA 111 if you have received a D or better in SPA111,201,202,203,204,311,312,313,314,315,316,325,412
SPA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Prerequisite: Must be a freshmanwith 25 or less total earned hours
SPA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	203	Intermediate Spanish for Bilinguals	For Spanish-speaking students, in lieu of SPA 201. Composition, literature, conversation, grammar fundamentals. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Students may not enroll in SPA 203 if they have received a D or better in SPA201,202,204,311,312,313,314,315,316,325,412
SPA	204	Intermediate Spanish for Bilinguals	For Spanish-speaking students, in lieu of SPA 202. Composition, literature, conversation, grammar fundamentals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 204 if you have received a D or better in SPA202,311,312,313,314,315,316,325,412
SPA	207	Spanish for International Professions II	Continuation of SPA 107, alternative to SPA 201, 202 sequence. Expansion of communicative proficiency in specific areas of international professions. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.	G	
SPA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SPA	311	Spanish Conversation	Designed primarily for nonmajors to promote vocabulary building and communicative expression in Spanish through discussions based on cultural readings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	312	Spanish Conversation	See SPA 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	May not enroll in SPA 313 if received a D or better in SPA 314,315, 316,325,412
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not sign up for SPA 314 if they have received a C or better in SPA 412; Pre-requisite: SPA 313 or 316 with a C grade or better

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SPA	315	Spanish Conversation and Composition for Bilinguals	Emphasizes comparing standard Spanish with regional Southwest Spanish. May be taken in lieu of SPA 313 and 314.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Credit is allowed for only SPA 313, 314, 315, 316, or 412
SPA	316	Spanish Conversation and Composition for Bilinguals	See SPA 315.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		May not enroll in SPA 316, if received a D or better in SPA 314, SPA 412; must have completed SPA 315 with a D or better or in progress
SPA	319	Business Correspondence and Communication	Organization and presentation of clear, effective business communications; vocabulary applicable to modern business usage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:SPA 314 or SPA 316 with a grade of D or better, or enrolled
SPA	325	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 313 or SPA 315 with a grade of D or better or in progress
SPA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	400	Introduction to Spanish Linguistics	Introduces the discipline and methods of linguistics through the study of Spanish data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better, or in progress
SPA	412	Advanced Conversation and Composition	Oral and written Spanish communication skills, with particular attention given to developing fluency and facility. Required of majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:SPA 314, or 316 with a grade of D or better
SPA	413	Advanced Spanish Grammar	Intensive analysis of the Spanish language. Required of teaching majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:SPA 314 or SPA 316 with a grade of D or better or enrolled
SPA	417	Spanish Phonetics and Phonology	Introduces the theory and practice of Spanish phonetics and phonology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better, or in progress
SPA	420	Applied Spanish Linguistics	Applies linguistic principles to the teaching of Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites:Must have completed Fla 400(or equivalent) with a grade of C or greater or be currently enrolled;& completed SPA 412 or in progress
SPA	421	Spanish in the Southwest	Discussion and linguistic analysis of Southwest Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or SB) & C	Pre-requisites: SPA 412 with C or better
SPA	422	Spanish Lexicology and Lexicography	Explores the linguistic theory and methodology related to the defining of meanings of words in Spanish dictionaries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better or currently enrolled
SPA	425	Spanish Literature	Surveys Spanish literature from its beginning to 1700.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	426	Spanish Literature	Surveys Spanish literature from 1700 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	427	Spanish American Literature	Surveys major works, figures, and movements from Colonial period to 1880.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	428	Spanish American Literature	Surveys major works, figures, and movements from 1880 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L & G	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	429	Mexican Literature	Selected readings from pre-Columbian writers/poets (e.g., Macuilxóchitl) through the novel of the Revolution to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	431	Prose of Golden Age		N	LEC	N	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	434	Drama of the Golden Age	Dramatic works of Lope de Vega, Calderón de la Barca, and their contemporaries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	435	Cervantes-Don Quijote	Don Quijote and the development of the novel.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	454	19th-Century Spanish American Narrative	Principal works in the novel, short story, narrative fiction, and narrative (Gauchesque) poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	456	20th-Century Spanish American Fiction	Major works and movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	464	Mexican American Literature	Representative literature in Spanish and English by Mexican Americans, emphasizing sociocultural as well as literary values.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(HU or SB) & C	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	471	Civilization of the Spanish Southwest	Political, intellectual, social, economic, and artistic development of the Spanish-speaking people of the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & C	Pre-requisites:SPA 314, or 316, with a grade of D or better or currently enrolled
SPA	472	Spanish American Civilization	Growth of the institutions and cultures of Spanish American people.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisites:SPA 314 or 316 with a grade of D or better or currently enrolled
SPA	473	Spanish Civilization	Political, intellectual, social, economic, and artistic development of the Spanish nation from its origin to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(HU or SB) & G	Pre-requisites:SPA 314 or 316 with a grade of D or better or currently enrolled
SPA	474	Mexican Culture	Examines diverse aspects of Mexican culture since the 1910 Revolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	485	Mexican American Short Story	Critical study of contemporary short stories by Mexican American authors, with emphasis on their Spanish-language writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	486	Mexican American Novel	Social and literary contexts of representative novelists, emphasizing their Spanish-language writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled

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SPA	487	Mexican American Drama	Representative dramatic works, with emphasis on the history and development of this genre from its regional origins to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
SPA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SPA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SPA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SPA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	534	Spanish Drama of the Golden Age	Analyzes principal works and figures of Golden Age Drama (Cervantes, Lope de Vega, Calderón, Tirso de Molina, Moreto, Ruiz de Alarcón) with current theater theory and comedia performance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	536	Generation of 1898	Works of Unamuno, Baroja, Azorín, and their contemporaries, studied against the ideological background of the turn of century in Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	537	Women in Spanish Literature	Major female writers and their texts from Spanish literature (María de Zayas, Ángela Grassi, Concepción Arenal, Emilia Pardo Bazán, Carmen Laforet, Paloma Pedrero) interpreted via current feminist and other critical theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	538	Mexican American Women Writers	Major female figures and works in Spanish or translation by contemporary writers (Zamora, Castillo, Corpi, Anzaldúa, L.D. Cervantes, D. Chávez, Duarte, Cisneros) interpreted via current feminist and other critical theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	540	History of the Spanish Language	Analyzes and discusses the development of Spanish from Vulgar Latin to the present day.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	541	Spanish Language in America	Discusses and analyzes various regional and social varieties of Spanish in the Americas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	542	Studies in the Spanish of the Southwest	Examines bilingualism and the social and regional dialects of Spanish in the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	543	Structure of Spanish	Analyzes and discusses data on selected topics in Spanish morphology, semantics, and syntax.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	544	Spanish Phonology	Surveys problems of Spanish phonology within the context of recent phonological theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	545	Concepts of Literary Criticism	Aims and methods of modern literary scholarship. Discusses major theories of literary analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	552	Studies in Mexican American Film	Major figures and films by contemporary filmmakers (Sylvia Morales, Cheech Marín, Gregory Nava, Lourdes Portillo, Roberto Rodríguez, Evelina Fernández) interpreted via critical film theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	555	Spanish American Modernism	Principal works and figures of literary modernism, 1880-1920, with emphasis on international literary context of the movement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	557	Contemporary Spanish American Poetry	Major works and problems in contemporary poetry and poetics, with emphasis on Paz, Parra, Cardenal, and new poetry since 1960.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	560	Medieval Spanish Literature	Major figures and works of the Middle Ages in Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	561	Golden Age Spanish Prose Fiction	Major figures and works of the 16th and 17th centuries, with emphasis on the picaresque novel.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	562	Golden Age Spanish Poetry	Major figures and works of the 16th and 17th centuries, with emphasis on lyric poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	563	Spanish Romanticism	Principal figures and works of Spanish romanticism, with emphasis on international literary context of the movement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	564	19th-Century Spanish Prose Fiction	Principal figures and works of realism in the 19th-century novel, with emphasis on Galdós;	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPA	565	20th-Century Spanish Drama	Principal figures and works of Spanish dramatic literature from the Generation of 1898 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	566	Generation of 1927	Major poets of the Generation of 1927, with emphasis on works of Lorca, Guillen, Salinas, and Aleixandre.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	567	Contemporary Spanish Novel	Major works of post-Civil War Spanish fiction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	568	Cervantes	Extensive analysis of the prose and theater of Cervantes as a key figure of the Spanish Golden Age.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	569	Studies in Spanish Film	Examines major figures and films in Spanish cinema. Critically interprets films through current film theory, history, and critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	570	Indigenous Literatures of Spanish America	Indigenous literary traditions, with emphasis on Nahuatl, Mayan, and Quechua literatures through readings in Spanish translations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	571	Colonial Spanish American Literature	Major figures and works from conquest to independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	572	Spanish American Drama	Major contributions of Spanish American drama, with emphasis on contemporary dramatists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	573	Spanish American Essay	Major works of the essay, within the framework of intellectual history and literary movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	574	Spanish American Vanguard Poetry	Examines poetic developments, 1920-1940, with emphasis on Huidobro, Vallejo, Neruda, and the international context of their works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	575	Contemporary Spanish American Novel	Principal novels of the <i>Nueva Narrativa Hispanoamericana,</i> within the context of contemporary theories of the narrative.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	576	Contemporary Spanish American Short Story	Principal short stories of the <i>Nueva Narrativa Hispanoamericana,</i> within the context of contemporary theories of the narrative.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	577	Regional Spanish American Literature	Figures and works of major national (Peru, Argentina, Chile, and Mexico) and regional (Caribbean) literatures. Topics offered on a rotating basis. May be repeated when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	578	Novel of the Mexican Revolution	Representative works and authors of this genre (Guzmán, Azuela, Urquiza, Muñoz, and Romero), including related or peripheral offshoots in indigenous novels.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	581	Latin American Popular Culture	Studies in selected topics of Latin American popular culture, with emphasis on appropriate academic models for the critical analysis of these materials.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	582	Studies in Latin American Film	Examines the role of film in contemporary Latin American culture; films viewed and analyzed as casebook examples.	N	SEM	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	585	Mexican American Short Story	Major collections and figures in Spanish or translation by contemporary Chicano short story writers (Ulúa, Suárez, Ulbarrí, Soto, Aguilar, P. Martín, Alarcón, R. Sánchez, N. Cantú, J. Sagel, Cisneros) interpreted via current narrative theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	586	Mexican American Novel	Major novels and figures in Spanish or translation by contemporary Chicano novelists (Hinojosa-S., Méndez, Morales, Cota-Cárdenas, Cisneros) interpreted via current narrative theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	587	Mexican American Drama	Major works of Mexican American drama, with emphasis on contemporary playwrights (Valdez, Portillo-T., Morton, Moraga, Gómez-Peña) interpreted via current critical drama theory or other methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	588	Mexican American Essay	Major figures and essays in Spanish or translation by contemporary essayists (Rendón, Anzaldúa, Villanueva, Rodríguez, Mora, Stavans) interpreted via current critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	589	Mexican American Poetry	Major figures and works in Spanish or translation by contemporary poets (Gonzales, Alurista, L.D. Cervantes, B. Zamora, R. Sánchez, Baca, G. Valdés, J. Montoya, G. Velázquez, T. Villanueva, J.F. Herrera, A. Villanueva) interpreted via current critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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SPA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	601	Latin American Feminist Cultural Production	Latin American feminist theory and studies as viewed through cultural production such as literature, film, photography, art.	N	SEM	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	791	Seminar		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
SPA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.		Students may not sign up for SPA 101, OR 102 if they have received a D or better in SPA 111.
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.		Students may not sign up for SPA 101, OR 102 if they have received a D or better in SPA 111.
SPA	107	Spanish for International Professions I	Accelerated program alternative to SPA 101, 102 sequence. Functional approach to needs of international professions. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	8.		

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SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	207-W	Spanish for International Professions II	Continuation of SPA 107, alternative to SPA 201 and 202 sequence. Expansion of communicative proficiency in specific areas of international professions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	8.		
SPA	311	Spanish Conversation	Designed primarily for nonmajors to promote vocabulary building and communicative expression in Spanish through discussions based on cultural readings.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	312	Spanish Conversation	See SPA 311.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	312	Spanish Conversation	See SPA 311.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed SPA311 with a grade of C or greater or be currently enrolled.
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	Pre-requisites: Must have completed SPA 202 with a grade of C or greater.
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	
SPA	325-W	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: Must have completed SPA202 with a grade of C or greater.
SPA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	412	Advanced Conversation and Composition	Oral and written Spanish communication skills, with particular attention given to developing fluency and facility. Required of majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	
SPA	413	Advanced Spanish Grammar	Intensive analysis of the Spanish language. Required of teaching majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	
SPA	425	Spanish Literature	Surveys Spanish literature from its beginning to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-rquisites: Must have completed SPA 325 with a grade of C or greater.
SPA	426	Spanish Literature	Surveys Spanish literature from 1700 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
SPA	427	Spanish-American Literature	Surveys major works, figures, and movements from Colonial period to 1880.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	428-W	Spanish-American Literature	Surveys major works, figures, and movements from 1880 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	464	Mexican American Literature	Representative literature in Spanish and English by Mexican Americans, emphasizing sociocultural as well as literary values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & C	
SPA	472-W	Spanish-American Civilization	Growth of the institutions and cultures of Spanish-American people.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: Must have completed SPA 325 with a grade of C or greater.
SPA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
SPA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
SPA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		

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SPA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	111	Fundamentals of Spanish	Primarily for students with two years of high school Spanish who need review to enter second-year study. Credit is allowed for only SPA 111 or both SPA 101 and 102. fee	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		You may not sign up for SPA 111 if you have received a D or better in SPA111,201,202,203,204,311,312,313,314,315,316,325,412
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
SPA	325	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
SPC	555	Inclusive Practices for Diverse Learners	Adapting instruction and assessment to meet the needs of all learners in inclusive settings. Includes the creation of plans to address challenging classroom behaviors.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SPC	312	Advanced Foundations of High-Incidence Disabilities	Emphasizes the needs of students with mild to moderate mental retardation, learning disabilities, emotional disturbances, and physical and other health impairments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	320	Behavior Analysis and Management	Development of functional analyses and implementation of behavior intervention plans emphasizing positive behavior supports in the classroom environment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
SPC	420	Special Education Assessment	Assessment procedures for determining eligibility and identifying educational needs of students with disabilities, including legal issues and current trends. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	425	Advanced Inclusion Strategies and Professional Practices	Applies inclusive strategies during student teaching. Emphasizes structured reflection and self-assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
SPC	440	Special Education Program Planning	Overview of legal and cultural issues; the development of curriculum, Individual Education Plans; evaluation of student progress, and instructional effectiveness. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	450	Secondary Content Methods and Accommodations	Examines programs, curricula, and accommodations for secondary students with disabilities. The development, implementation, and evaluation of transition plans.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	455	Advanced Methods and Accommodations	Orientation to philosophies and principles of curriculum development. Selection, evaluation, and adaptations of curricula and instructional methods for pull-out and inclusive settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	460	Consultation and Collaboration in Inclusive Environments	Examines and applies theories and practices used to promote consultation and collaboration with all stakeholders in inclusive environments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
SPC	474	Field Experience in Inclusive Settings I	Applies course content while working with students with disabilities in inclusive settings. Emphasizes classroom and behavior management. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
SPC	475	Field Experience in Inclusive Settings II	Applies course content while working with students with disabilities in inclusive settings. Emphasizes making and evaluating accommodations. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
SPC	476	Field Experience in Inclusive Settings III	Supervised teaching in inclusive settings. Capstone internship in assessment, program planning, curriculum, instruction, collaboration, and classroom and behavior management. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPC	480	Student Teaching with Students with Disabilities	Supervised teaching in inclusive settings. Capstone practicum in assessment, program planning, curriculum, instruction, collaboration, and classroom and behavior management. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	10-12		
SPC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SPC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	512	Individuals with Mental Retardation	Etiology, diagnosis, and management of individuals with mental retardation. Current trends in prevention, programming, and teacher preparation. Not recommended for students who have completed SPE 312.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	514	Bilingual/Multicultural Aspects of Special Education	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	515	Methods for the Remediation of Learning Problems of Exceptional Children	Methods and materials for remediating the basic academic problems of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	519	Inclusion Methods: Science, Social Studies, and Mathematics	Instructional strategies used for delivery of science, social studies, and mathematics with exceptional children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	521	Foundations of Autism Spectrum Disorders	Increases the understanding of characteristics of individuals with autism.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	524	Effective Classroom Behavior Management	Organization and delivery of instruction including formative evaluation and techniques of academic behavior management for exceptional children. Requires practicum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	525	Social Behavior Interventions	Analysis and intervention into social behavior problems of exceptional students. Focuses on strategies to change maladaptive social behavior. Requires practicum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	531	Methods of Applied Behavior Analysis for Exceptional Populations	Behavior management approaches for classroom behavior of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	536	Characteristics of Children with Behavioral Disorders	Variables contributing to behavior patterns of behaviorally disordered children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	537	Instructional Management: Reading and Language Arts	Instructional strategies used for delivery of reading and language arts with exceptional children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	548	Cross-Categorical Foundations: LD, ED, MR, & PI/OHI	Foundations course compares cognitive, motor, and affective developmental and educational issues across LD, ED, MR, and PI/OHI.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	550	Inclusion Practices in Science and Mathematics	Facilitates and expands knowledge in the practical application of strategies meeting diverse needs of learners in science and mathematics classrooms	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2.		Pre-requisites: Graduate students only
SPE	551	Teaching Young Children with Special Needs	Methods, materials, and curriculum for preschool and primary-aged children with special needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	554	The Parent/School Partnership	Includes knowledge and procedures for involvement and training of parents and caregivers of preschool and severely handicapped individuals. Requires field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	561	Characteristics/Diagnosis of Learning Disabilities	Theories related to learning disabilities, including identification and characteristics.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	574	Educational Evaluation of Exceptional Children	Design and statistical considerations of normative and criterion-referenced tests. Collection, recording, and analysis of data from formative evaluation.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	575	Survey and Current Issues in the Education of Exceptional Children	Mainstreaming, noncategorical, financing, legal diagnostic, labeling, legislative, and other critical and controversial issues related to the education of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	577	Inclusive Teaching and Learning	Develops successful learning environments for students using evidence-based instructional approaches, collaborative teaching models, and culturally responsive practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only

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SPE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	582	Classroom Research with Exceptional Children	Introduces interpreting research. Specific research techniques with primary emphasis on classroom research, including applied behavior analysis.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	585	Creativity: Research and Development	Explores nature of creativity in terms of philosophical underpinnings, empirical evidence, human development, self-actualization, and the ecology surrounding the creative event.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	586	Advising the Gifted Child	Focuses on educational planning and guidance, social and emotional development, and family problem solving regarding needs of gifted children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	587	Controversies in Educating the Gifted	In-depth analysis of major controversies in educating the gifted, including nature/nurture, the role of mental tests, and sex differences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	588	The Gifted Child	Gifted children's characteristics, identification, needs, school and home environments, definitions, and misunderstandings. Research by Pressey, Stanley, Terman, and others.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	589	Methods in Teaching the Gifted	Methods in teaching elementary and secondary school gifted children, including individualized and computer-assisted instruction, team teaching.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be graduate student in Special Education
SPE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be a graduate student in Special Education
SPE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be a graduate student in Special Education
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisites: Graduate students only
SPE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be a graduate student in Special Education
SPE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be a graduate student in Special Education

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SPE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Must be a graduate student in Special Education
SPE	702	Conducting Research with Special Populations	Considers concepts and methodologies for conducting research with any aspect of special education, including gifted and multicultural.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Must be Graduate(doctoral) student in Special Education
SPE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite:Must be a graduate student (doctoral) in Special Education
SPE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be a grad(doctoral) student in Special Education
SPE	566	History of Education	Definitions, characteristics, assumptions, and basic principles of behavioral analysis as applied to social skills in inclusion settings.	N	DIS	N	CNV	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	512	Individuals with Mental Retardation	Etiology, diagnosis, and management of individuals with mental retardation. Current trends in prevention, programming, and teacher preparation. Not recommended for students who have completed SPE 312.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	514	Bilingual/Multicultural Aspects of Special Education	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	515	Methods for the Remediation of Learning Problems of Exceptional Children	Methods and materials for remediating the basic academic problems of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	519	Inclusion Methods: Science, Social Studies, and Mathematics	Instructional strategies used for delivery of science, social studies, and mathematics with exceptional children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	521	Foundations of Autism Spectrum Disorders	Increases the understanding of characteristics of individuals with autism.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate students only
SPE	531	Methods of Applied Behavior Analysis for Exceptional Populations	Behavior management approaches for classroom behavior of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	532	Systems, Policies, and Program Practices	Analyzes historical, political, social, and legal factors impacting special education services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	533	Issues and Foundations in Special Education	Foundational themes and issues in special education. Critical issues related to characteristics of students with mild emotional disturbance, behavior disorders, learning disabilities, mental retardation, orthopedic, and other health impairments.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student

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SPE	534	Assessment and Evaluation	Discusses assessment practices related to student eligibility and program planning. Emphasizes authentic, individualized, interdisciplinary practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	535	Curricula, Methods, Technology, and Adaptations	Develops strategies for effective adaptation of special education and general education curriculum through use of technology.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	536	Characteristics of Children with Behavioral Disorders	Variables contributing to behavior patterns of behaviorally disordered children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	537	Instructional Management: Reading and Language Arts	Instructional strategies used for delivery of reading and language arts with exceptional children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	540	Family Centered Practices	Issues associated with families and family systems. Effects of disabilities on families. Strategies for family support and empowerment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	541	Consultation Frameworks and Issues	Models, activities, and roles of educational consultants working with families, professionals, and support personnel across disciplines and agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	543	Issues in the Development of Infants and Young Children	Factors and conditions that affect early development. Strategies for promoting attachment, self-regulation, resilience, adaptation, and coping.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	544	Assessment and Evaluation of Infants and Young Children	Developmental assessment and related program planning for infants and young children. Emphasizes authentic, individualized, family-centered and culturally competent approaches.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	545	Curricula, Methods, Technology, and Adaptations for Infants and Young Children	Developmentally appropriate practices. Serving young children with diverse abilities in natural, inclusive settings. Emphasizes cognitive development, social competence.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	546	Communication, Language, and Early Literacy	Early communication development and language acquisition. Facilitating communicative competence and early literacy for infants and young children with diverse abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	547	Supporting Motor Development	Early sensorimotor development. Strategies to facilitate the acquisition of motor skills and address the needs of children with motor disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	548	Cross-Categorical Foundations: LD, ED, MR, & PI/OHI	Foundations course compares cognitive, motor, and affective developmental and educational issues across LD, ED, MR, and PI/OHI.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must have completed SPE 512 and 574 with a grade of C or better
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must have completed SPE 512 and 574 with a grade of C or better
SPE	554	The Parent/School Partnership	Includes knowledge and procedures for involvement and training of parents and caregivers of preschool and severely handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	561	Characteristics/Diagnosis of Learning Disabilities	Theories related to learning disabilities, including identification and characteristics.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	574	Educational Evaluation of Exceptional Children	Design and statistical considerations of normative and criterion-referenced tests. Collection, recording, and analysis of data from formative evaluation.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	575	Survey and Current Issues in the Education of Exceptional Children	Mainstreaming, noncategorical, financing, legal diagnostic, labeling, legislative, and other critical and controversial issues related to the education of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	577	Inclusive Teaching and Learning	Develops successful learning environments for students using evidence-based instructional approaches, collaborative teaching models, and culturally responsive practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	578	Student Teaching in Special Education	Y grade only. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
SPE	578	Student Teaching in Special Education	Y grade only. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate students only

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	578-W	Student Teaching in Special Education	Student teaching in special education setting for students in the MEd with Concentration in Teacher Certification. Lab, field experience. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	12.		
SPE	579	Apprentice Teaching in Special Education	Apprentice teaching in special education setting. Must be taken four times for a total of 12 semester hours. Lab, field experience. Fee.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	582	Classroom Research with Exceptional Children	Introduces interpreting research. Specific research techniques with primary emphasis on classroom research, including applied behavior analysis.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SPE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	301	Assistive Technology in Education	Examines the use of assistive technology in educational settings to achieve educational, personal, and social goals of students with disabilities.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	303	Foundations of LD and ED	Examines history, etiology, assessment, classification, programming, accommodations, and inclusion for students with disabilities LD and EH	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	304	Foundations of MR and PD/OHI	Examines effective assessment, early intervention, programming, instruction, modifications, self determination, and inclusion for students with disabilities MR and PD/OHI.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	309	Basic Special Education Curriculum	Introduces curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	310	Professional Practices and Foundations in Special Education	Foundational themes and issues in special education. Discusses each disability within the mild cross-categorical area in relation to foundational themes and issues relating to professional practices in special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Education student, SPE 317, SPE 320, SPE 322, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	310	Professional Practices and Foundations in Special Education	Foundational themes and issues in special education. Discusses each disability within the mild cross-categorical area in relation to foundational themes and issues relating to professional practices in special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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SPE	312	Mental Retardation	Characteristics and assessment specific to mental retardation. Emphasizes terminology, development, educational programming, and therapeutic procedures.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; SPE 314 and SPE 361 with C or better or currently enrolled; SPE 496 with Y grade or currently enrolled; Co-requisites: SPE 336, SPE 412, SPE 413 and SPE 496
SPE	314	Introduction to Bilingual/Multicultural Special Education	Theoretical background and practical application of general issues regarding the education of bilingual/multicultural handicapped children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	317	Special Education for Culturally and Linguistically Diverse Children and Youth	General issues and practical applications regarding the education of culturally and linguistically diverse students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	317	Special Education for Culturally and Linguistically Diverse Children and Youth	General issues and practical applications regarding the education of culturally and linguistically diverse students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Education student, SPE 310, SPE 320, SPE 322, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	318	Family-School Collaboration	Explores relationships between families of children with special needs and professionals in educational institutions and community agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 423, SPE 424, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	318	Family-School Collaboration	Explores relationships between families of children with special needs and professionals in educational institutions and community agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	320	Assessment and Evaluation in Special Education	Norm-referenced, criterion-referenced, and authentic strategies to determine eligibility, plan individualized programs, and monitor progress of students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Co-requisites: Special Education student, SPE 310, SPE 317, SPE 322, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	320	Assessment and Evaluation in Special Education	Norm-referenced, criterion-referenced, and authentic strategies to determine eligibility, plan individualized programs, and monitor progress of students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
SPE	322	Behavior Management and Consultation	Develops and implements analysis, intervention, and consultation strategies for effective management of classroom behavior for students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Education student, SPE 310, SPE 317, SPE 320, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	322	Behavior Management and Consultation	Develops and implements analysis, intervention, and consultation strategies for effective management of classroom behavior for students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	336	Behavioral and Emotional Problems in Children	Characteristics and assessment specific to emotionally and behaviorally disturbed children. Emphasizes terminology, development, and educational programming.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; SPE 314 and SPE 361 with a C or better or currently enrolled; SPE 496 with Y grade or currently enrolled; Co-requisites: SPE 312, SPE 412, SPE 413 and SPE 496
SPE	361	Introduction to Learning Disabilities	Characteristics and assessment specific to learning disabilities. Emphasizes terminology, development, and educational programming.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	397	Field Experience II	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
SPE	397	Field Experience II	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Special Education student, SPE 310, SPE 317, SPE 320, SPE 322 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	411	Parent Involvement and Regulatory Issues	Emphasizes parent and school relations through effective communication and state and federal regulations impacting services for the handicapped.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	411	Parent Involvement and Regulatory Issues	Emphasizes parent and school relations through effective communication and state and federal regulations impacting services for the handicapped.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student with a cumulative GPA of at least 2.50 AND have completed with a grade of C or better in SPE412 and 413 and a Y grade in SPE496 AND be co-enrolled in SPE414,415,419 and 496
SPE	412	Evaluating Exceptional Children	Normative and criterion-referenced diagnostic techniques, including formative evaluation. Emphasizes application. Requires daily practicum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	413	Methods in Language, Reading, and Mathematics for Exceptional Children	Methods, techniques, and materials for use in prescriptive teaching. Requires daily practicum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	414	Instructional Management and Strategies: Reading and Writing	Organization and delivery of instruction, including formative evaluation techniques. Instructional techniques of reading and writing. Requires regular participation in a field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student with a cum GPA of at least 2.50 AND have earned a grade of C or better in SPE412 and 413 and a Y grade in SPE496 AND be co-enrolled in SPE411,415,419 and 496 or SPE494 and 496
SPE	415	Classroom and Behavior Management	Analysis and intervention into social behavior problems of exceptional populations. Requires regular participation in a field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student with a cumulative GPA of at least 2.50 AND have completed with a grade of C or better in SPE412 and 413 and a Y grade in SPE496 AND be co-enrolled in SPE411,414,419 and 496
SPE	416	Quality Practices in the Collaborative Classroom	Develops skills, strategies, and a knowledge base for preservice teachers in building collaborative partnerships with special educators. May be repeated for credit.	Y	FLD	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisites: Initial Teacher Certification Program Admission

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SPE	417	Inclusion Practices at the Secondary Level	Applies curricular practice and how preservice teachers work with students with special needs in middle and secondary levels.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	418	Quality Practices in the Collaborative Indigenous Classroom	Develops skills, strategies, and knowledge for preservice teachers, focusing on indigenous children, while building collaborative partnerships with special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	419	Instruction in Content Areas: Science and Social Studies	Develops and implements instructional methods and learning strategies for students with special needs related to science and social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student and have a cumulative GPA of at least 2.5
SPE	423	Technology & Instructional Methods in Language, Reading, & Mathematics - Mild/Moderate Disabilities	Effective use of technology; instruction and assessment of performance in language, reading, and mathematics for students with mild/moderate disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 318, SPE 424, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	423	Technology & Instructional Methods in Language, Reading, & Mathematics - Mild/Moderate Disabilities	Effective use of technology; instruction and assessment of performance in language, reading, and mathematics for students with mild/moderate disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	424	Methods of Cross-Categorical Special Education	Assessment and instructional methods for students with mild to moderate retardation, learning disability, emotional disabilities, and physical/health impairment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	424	Methods of Cross-Categorical Special Education	Assessment and instructional methods for students with mild to moderate retardation, learning disability, emotional disabilities, and physical/health impairment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 318, SPE 423, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	431	Collaborative Teaching Methods for General Education Classroom Environments	Methods and issues in cooperative teaching for special education students in general education classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 318, SPE 423, SPE 424, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	431	Collaborative Teaching Methods for General Education Classroom Environments	Methods and issues in cooperative teaching for special education students in general education classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	440	Professional Seminar in Special Education	Examines critical issues in the delivery of special education services. Emphasizes self reflection and professional development.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Ed student; SPE 479 OR PDS (Professional Development School) student as appropriate
SPE	440	Professional Seminar in Special Education	Examines critical issues in the delivery of special education services. Emphasizes self reflection and professional development.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	478	Student Teaching in Special Education	Y grade only. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SPE	478-W	Student Teaching in Special Education	Student teaching in special education setting.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Co-requisites: Special Ed student; SPE 440 OR PDS (Professional Development School) student as appropriate
SPE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SPE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisites: Must be an Honors student
SPE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	493	Honors Thesis		N	THE	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SPE	493	Honors Thesis		N	THE	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	496	Field Experience III	Applies course content in a special education setting. Emphasizes observation pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Special education student, SPE 318, SPE 423, SPE 424, SPE 431 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	496	Field Experience III	Applies course content in a special education setting. Emphasizes observation pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
SPE	496	Field Experience	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Initial Teacher Certification Program Admission
SPE	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SPE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		

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SPE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SPE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SPF	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
SPF	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	298	Honors Directed Study		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	301	Culture and Schooling	For the professional teacher preparation program. Overview of the cultural, social, and political milieus in which formal schooling takes place in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	L	Pre-requisites: Initial Teacher Certification Program Admission
SPF	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	401	Teachers and the Law	For the professional teacher preparation program. Analysis and interpretation of classroom behavior from perspectives derived from philosophy, social science, and law.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-2		
SPF	402	Teachers and the Law in Indigenous Communities	Examines the legal rights of students, teachers, and the district while preventing injury to students in indigenous communities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
SPF	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
SPF	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6	L	Pre-requisites: Must be an Honors student
SPF	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	497	Honors Colloquium		Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-7		
SPF	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
SPF	501	Culture and Schooling	Introduces social science concepts of culture and the cultural milieu in which schooling takes place in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2-3		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	510	Intro to Organization and Administration of American Public Schools	Curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	511	School and Society	Interrelationship of school and society and the role of education in social change.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	515	Gender and Education	Methods and materials for remediating the basic academic problems of exceptional children. Prerequisite: admission to MEd in Special Education program.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	520	Cultural Diversity in Education	Philosophic and sociological investigation of cultural diversity in the United States and how it relates to education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	530	Sociology of Education	Current issues in the sociology of education: stratification, social mobility.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

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SPF	534	Foundations of Educational Inquiry	Overview of the nature of inquiry examining the philosophy of science and social science, approaches to knowing in the humanities. Credit is allowed for only SPF 534 or 634.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	544	Philosophical Foundations of Education	Theories of education in ancient, medieval, and modern classical and contemporary philosophies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	597	Teacher and the Law	For the professional teacher preparation program. Analysis and interpretation of classroom behavior from perspectives derived from philosophy, social science and the law.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-2		
SPF	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
SPF	603	Visual Ethnography in Education	Advanced qualitative methods class combining ethnography with the use of video and still photography in data gathering and presentation.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	612	Evaluation Theory	Explores the major theories of evaluation (inquiry leading to value judgments) in educational policy through examination of cases.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	622	Organizational Theory	Major views of organizations and their influence on role definition and participant behaviors in educational organization.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	634	Foundations of Educational Inquiry	Overview of the nature of inquiry examining the philosophy of science and social science, approaches to knowing in the humanities. Credit is allowed for only SPF 634 or 534.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	677	Foundations of Educational Reform Movements	Historical and contemporary survey of curricular reform movements in the United States with emphasis on equity and social justice issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	685	Education in Global Contexts	Global perspectives on education in contemporary society with emphasis on social, political and economic factors that affect access and equity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-6		
SPF	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPF	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	711	Social and Historical Foundations of Education	Explores the history of sociological thought, especially theories of the relations between educational systems and the social/cultural world.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	510	Intro to Organization and Administration of American Public Schools	Curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SSH	100	Introduction to Global Health	Current global health crises, challenges; tools for describing health and disease; ecological, cultural, social, historical, political-economic factors; comparative health systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
SSH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	301	Global History of Health	Examines disease and health transitions in broadest context of human history, from primate ancestors to hunter-gatherers, to transcontinental contact, colonialism, industrialization, urbanization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better or currently enrolled. If you have credit in ASB 301, you may not enroll in SSH 301
SSH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	400	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	Pre-requisites: ASB 100 or ASB 102 with D or better or currently enrolled; SSH 100 with D or better or currently enrolled
SSH	401	Health and Human Biology	Health and biology in contexts of human evolutionary history, biological and cultural variation, lab-based health status assessments, core concepts of human variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASB 100 or ASM 104 with D or better or currently enrolled; SSH 100 with D or better or currently enrolled

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SSH	402	Community Partnerships for Global Health	Supervised community-based activities relevant to a global perspective on contemporary U.S. health. Addresses community-identified issues using appropriate methodologies.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9	SB	Pre-requisites:SSH 400 or ASB 440 with a grade of D or better or currently enrolled. If you have credit in ASB 452, you may not sign up for SSH 402
SSH	403	Cross-Cultural Studies in Global Health	Direct investigations of society, ecology, and health in international settings.	N	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-6	SB & G	Pre-requisites:SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit for ASB 443, you may not enroll in SSH 403
SSH	405	Senior Seminar in Global Health	Students create health solutions, integrating theoretical, methodological, ethical, and experiential learning related to the global health major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
SSH	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: Students who have credit for ASM 414, or SOS 414, may not enroll in SSH 414. Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
SSH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
SSH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
SSH	510	Health: Social and Biocultural Theories	Comparative and critical approaches to complexities of health, drawn from anthropology and related fields Focuses on theories that address how social and cultural factors shape human health.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	511	Ethics in Health Social Science Research	Ethics and social justice issues in community-based health research relevant to health social science, including informed consent, community involvement, control, advocacy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: SSH 510 or ASB 510 completed with D or better or currently enrolled
SSH	512	Social Science Applications in Community Health	Supervised community-based activities relevant to improvement of health through application of social science theory.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9		Pre-requisites: ASB 511 or SSH 511 with D or better. Must be graduate student
SSH	513	Research Design and Proposal Writing in Health Social Science	Research design, piloting, and proposal writing for social scientists conducting health research.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASB 500 completed with D or better or currently enrolled; SSH 511 or ASB 511 completed with D or better or currently enrolled
SSH	514	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
SSH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
STP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Prerequisite: Must be a freshman with 25 or less total earned hours
STP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	220	Conceptual Statistics	Treats the concepts and vocabulary needed to evaluate statistical reports on health, technology, and society. Aggressively emphasizes understanding over computation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	231	Statistics for Life Science	Concepts and methods of statistics; display and summary of data, interval estimation, hypothesis testing, correlation, regression. Applications to biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
STP	326	Intermediate Probability	Probability models and computations, joint and conditional distributions, moments, and families of distributions. Topics in stochastic processes, simulation, and statistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	421	Probability	Laws of probability, combinatorial analysis, random variables, probability distributions, expectations, moment-generating functions, transformations of random variables, and central limit theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	425	Stochastic Processes	Markov chains, stationary distributions, pure jump processes, 2-D order processes, and other topics in stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	427	Mathematical Statistics	Limiting distributions, interval estimation, point estimation, sufficient statistics, and tests of hypotheses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	429	Experimental Statistics	Statistical inference for controlled experimentation. Multiple regression, correlation, analysis of variance, multiple comparisons, and nonparametric procedures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
STP	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
STP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
STP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
STP	525	Advanced Probability	Measure-theoretic foundations of probability, distribution functions and characteristic functions, laws of large numbers and central limit theorems, conditional probabilities, martingales, and topics in stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	526	Theory of Statistical Linear Models	Multinomial distribution, distribution of quadratic forms, full and nonfull rank models, generalized inverses, unbalanced data, variance components, and the large sample theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	527	Statistical Large Sample Theory	Types of convergence, central limit theorems, theory of maximum likelihood estimation, efficiency, robustness, influence functions, theory of bootstrap methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	530	Applied Regression Analysis	Method of least squares, simple and multiple linear regression, polynomial regression, analysis of residuals, dummy variables, and model building.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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STP	531	Applied Analysis of Variance	Factorial designs, balanced and unbalanced data, fixed and random effects, randomized blocks, Latin squares, analysis of covariance, and multiple comparisons.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	532	Applied Nonparametric Statistics	One-sample test, tests of 2 or more related or independent samples, measures of correlation, and tests of trend and dependence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	533	Applied Multivariate Analysis	Discriminant analysis, principal components, factor analysis, cluster analysis, and canonical correlation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	534	Applied Discrete Data Analysis	Models for discrete and count data, measures of association, and log-linear and regression models for contingency tables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	535	Applied Sampling Methodology	Simple random, stratified, cluster sampling; variance estimation in complex surveys; nonparametric superpopulation approaches; nonresponse models; computational methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
STP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
STP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
STP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
STP	220	Conceptual Statistics	Treats the concepts and vocabulary needed to evaluate statistical reports on health, technology, and society. Aggressively emphasizes understanding over computation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	226-W	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: Must have completed MAT117 or MAT142 with a grade of C or greater or be currently enrolled.

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
STP	300	Introduction to Probability	Probability models and computations, joint and conditional distributions, moments, families of distribution, stochastic processes, simulation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT210 with a grade of C or greater or be currently enrolled.
STP	326	Intermediate Probability	Probability models and computations, joint and conditional distributions, moments, and families of distributions. Topics in stochastic processes, simulation, and statistics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	421	Probability	Laws of probability, combinatorial analysis, random variables, probability distributions, expectations, moment-generating functions, transformations of random variables, and central limit theorem.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
STP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
STS	101	Introduction to Science, Technology, and Society	Overview of the basic issues, definitions, and literature involved in the study of science, technology, and human systems. Credit is given for only STS 304 or 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	110	Global Technology and Development	Introduces awareness and understanding of how technology, processes of globalization, and society influence one another. Credit is given for only STS 317 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	Credit is allowed for only STS 110 or 317
STS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	301	Research in Science and Technology Studies	Examines methods of inquiry in the social sciences with emphasis on STS, including both qualitative and quantitative approaches, philosophy of science, and scientific revolutions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	302	Philosophy of Science and Technology	Focuses on the nature and implications of science as a body of knowledge, set of practices, specific methods, and how these differ from other human enterprises and activities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: ENG 101, ENG 105, ENG 107 or ENG 111 with C or better
STS	304	Science, Technology, and Society	Overview of the major issues associated with the study of science, technology, and human systems, including theoretical approaches. Credit is given for only STS 304 or 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	305	Science and Social Theory	Explores the different theoretical traditions that inform social interpretations of science, including awareness of the historical traditions that define these interpretations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	306	Social Effects of Science and Technology	Examines the effects of science and technology on social life and the contexts in which those effects manifest.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	317	Science, Technology, and Global Engagement	Overview of international issues associated with both the development and deployment of technologies, including matters concerning international relations. Credit is given for only STS 317 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	Credit is allowed for only STS 110 or 317
STS	318	Science, Technology, and Government	Examines the foundations of the interrelationship of science, technology, and democratic governance, with emphasis on the American political system.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	325	Science, Technology, and Public Policy	Examines the interaction of science and technology with American domestic policy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	328	Science, Technology, and Culture	Overview of technology and international cultures, including cultural definitions of science and technology. May intersect issues of culture and religion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	329	Cultivating Technology in Newly Industrializing Countries	Covers specific issues relating to building technological capability in newly industrializing countries.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	330	Information Technology and Globalization	Examines the intersection of advances in information technology and globalization and the impact of these processes on human systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	331	Ethical Issues in Science and Technology	Examines the interconnections between values and science and technology by examining such topics as computers and privacy, medical malpractice, reproductive technologies, patents, and hazardous facilities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	332	Global Issues in Science and Technology	Examines contemporary international debates in science and technology and how those issues impact globalization.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	364	Science, Technology, and National Security	Examines how changing technologies impact all aspects of national security policy in the United States.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: STS 101 and STS 301 with a grade of D or better

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STS	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	401	Statistics in Science and Technology Studies	Introduces statistical techniques for the social sciences, including the role and rationale of statistics, descriptive measures, associational measures, and inferential statistics.	N	LEC	N	GRD	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:Completed STS 301 with a grade of D or better
STS	425	Law, Values, Science, and Technology	Examines the interconnections of law, values, and science and technology with a view to establishing their reciprocal relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
STS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		
STS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
SWG	501	Micro Human Behavior in the Social Environment	Human behavior in the social environment throughout the life cycle, analyzing theories of human development within an integrative multidimensional framework.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite: MSW or DSW student
SWG	502	Macro Human Behavior in the Social Environment	Human behavior in the social environment, focusing on groups, organizations and communities and examining theoretical perspective in a macro context.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite: MSW or DSW student
SWG	503	Development of Families in Oppressive Context	Addresses the development of healthy families and children. Explores essential tasks of human development and theories that inform practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	503	Development of Families in Oppressive Context	Addresses the development of healthy families and children. Explores essential tasks of human development and theories that inform practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be admitted to MSW.
SWG	504	Theories of Human Behavior	Addresses development of healthy adults and human behavior in groups, organizations, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; SWG 503 with a C or better or currently enrolled
SWG	510	Foundation Practice I	Basic social work methods with emphasis on the problem-solving process as it pertains to individuals, families, and small groups.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student.
SWG	511	Foundation Practice II	Theory and methods of direct practice with groups and selected practice models.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student; SWG 510 with C or better
SWG	512	Values and Ethics of Social Work Practice I	Develops a basic understanding of diverse ethical systems and their application to a broad range of human problems in various social and cultural contexts.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW student
SWG	512	Values and Ethics of Social Work Practice I	Develops a basic understanding of diverse ethical systems and their application to a broad range of human problems in various social and cultural contexts.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	513	Social Work Generalist Practice II	Building on SWG 512, continues to develop and apply a generalist framework of social work practice. Examines theories of practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites:Must be admitted to the MSW and have completed SWG 512 with a grade of C or greater
SWG	519	Research Methods in Social Work	Conceptual foundations and methods of nomothetic research in social work. Includes problem identification, hypothesis formulation, measurement, sampling, and experimental design.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student.
SWG	520	Research and Advocacy	Develops knowledge and skills needed to utilize and engage in social research related to advocacy issues and the evaluation of social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	531	Social Policy and Services I	Conceptual, analytical, and historical perspectives on the social welfare institution. Emphasizes poverty and inequality. Principles of policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral of Social Work student
SWG	532	Policy and Social Change	Overview of the history, development, pertinent concepts, skills, and definitions associated with social welfare problems and policies.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	532	Policy and Social Change	Overview of the history, development, pertinent concepts, skills, and definitions associated with social welfare problems and policies.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		

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SWG	533	Diversity and Oppression in a Social Work Context	Explores issues of social inequality related to disability, ethnicity, gender, race, and sexual orientation. Emphasizes populations of the Southwest.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral Social Work student.
SWG	534	Diversity and Underserved Populations	Examines issues of privilege and oppression, including their impact on the social work process, with the goal of developing a culturally competent master's-level social worker.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	534	Diversity and Underserved Populations	Examines issues of privilege and oppression, including their impact on the social work process, with the goal of developing a culturally competent master's-level social worker.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	540	The Professional Experience I	150 clock hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; Co-requisite: SWG 512
SWG	540	The Professional Experience I	150 clock hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; Co-requisite: SWG 512
SWG	541	Field Practicum I	With SWG 542, two consecutive semesters (480 hours) of supervised social work practice in an approved placement. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Master or Doctor Social Work student; Pre or Co-requisite: SWG 510 with a grade of C or greater if completed
SWG	542	Field Practicum II	See SWG 541. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG510, SWG541, and SWG 511 with a C or greater or be currently enrolled (or be enrolling in SWG511)
SWG	543	The Professional Experience II	250 hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Master of Social Work student; SWG 512 with C or better; Co-requisite: SWG 513
SWG	550	Co-Occurring Disorders	Provides sound theoretical and practical orientations to working with persons who have co-occurring disorders.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	551	Crisis Intervention	Covers the basics of crisis intervention in social work practice, along with applications to several different populations.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	552	Issues in School Social Work	Provides knowledge and skills necessary to implement effective social work services in a school setting.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	553	Social Work with American Indians	Introduces social work issues relevant to Native Americans. Explores effective methods with Native American clients.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	554	Substance Abuse	Psychological and sociocultural determinants of substance abuse. Overview of social policies and treatment approaches.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	555	Social Work Practice Skills with Latinos	Focuses on communication skills necessary and appropriate for social work practice with Spanish-speaking clients and their families. Credit is allowed for only SWG 555 or SWU 455.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	557	Southwest Borderland Immigration Issues	Reviews immigration history, trends, policies, and legislation. Focuses on immigrant experience from economic, educational, social, political, familial perspectives in Southwestern U.S. Credit is allowed for only SWU 557 or SWG 457.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Masters or Doctoral Social Work student
SWG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	585	Macro Social Work Practice	Examines communities and human service organizations as social systems. Introduces strategies for initiating planned change.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral Social Work student
SWG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		Pre-requisite: Master or Doctor Social Work student.
SWG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		Pre-requisites: Must be Master Social Work student.
SWG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		

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SWG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Social Work	1-12		
SWG	600	Foundation for Advanced Practice	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: Master Social Work student.
SWG	603	Social Work Practice in Health/Behavioral Health Settings	Advanced social work practice in health and behavioral health settings, focusing on enhancement of client functioning and quality of life.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 502; SWG 511; SWG 542
SWG	604	Advanced Social Work Practice in Health	Addresses the crucial social work practice issues of health and healthcare in the new millennium.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 603
SWG	606	Assessment of Mental Disorders	Theories and concepts of mental health and illness. Attention to classification systems and nomenclature used in assessing mental disorders.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student; SWG 502 with C or better
SWG	608	Ecological Approach to Practice with Children, Youth, and Families	Provides a theoretical and practical orientation to working with children, youth, and families from an ecological strengths perspective.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: SWG 502; SWG 511; SWG 542
SWG	609	Advanced Social Work Practice with Child Welfare Families	Focuses on substance abuse, family violence, and serious mental illness in practice with families and children in the child welfare system.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 608 completed with D or better or currently enrolled
SWG	610	Advanced Social Work Practice III	Assists students in advanced theoretical understanding and practice with families, groups, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	610	Advanced Social Work Practice III	Assists students in advanced theoretical understanding and practice with families, groups, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW or MSW Adv Standing student; Co-Requirement: SWG 693 and 645
SWG	611	Social Work with Families	Theory, concepts, and skills for working with diverse family populations. Emphasizes a systems and integrative approach.	N	LEC	N	OPT	College of Public Programs	School of Social Work	2-3		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 510 completed with C or better; SWG 511 completed with C or better or currently enrolled; SWG 541 and SWG 542 completed with Y or currently enrolled
SWG	612	Social Work with Groups	Practices applications of knowledge and skill to social work with groups.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	613	Advanced Social Work Practice in Behavioral Health	Treatment of prevalent disorders encountered by social workers, selected from the following: anxiety disorders, personality disorders, depression, and schizophrenia.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: SWG 603
SWG	614	Advanced Generalist Social Work Practice IV	Integrates a multilevel approach to practice with critical choice theories and interventions. Focus on groups, organizations, and communities and their impact on social work practice. Completion of the foundation courses or advance standing in the MSW program, or instructor approval, is required for all 600- level SWG courses.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	615	Effective Intervention with Children and Adolescents	Provides a framework of knowledge, theories, and skills for effective social work practice with vulnerable children and adolescents.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either:MSW or MSW Adv Standing
SWG	616	Social Work with Chemically Dependent Families	Examines dynamics of the chemically dependent family and presents clinical approaches for intervening in the family system and subsystems.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	617	Advanced Social Work Practice with Children and Adolescents	Theory, research, and intervention that focus on children and adolescents.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	618	Domestic Violence	Theory, research, intervention, and prevention strategies relevant to child maltreatment, partner abuse, and elder abuse.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	619	Practice-Oriented Research	Accelerated course in application of scholarly and scientific principles to field practice, problem formulation, interventional procedures, and impact assessment.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG519 with a grade of C or greater or be currently enrolled
SWG	621	Integrative Seminar	Explores the fit between theoretical frameworks and practice with clients. Requires presentation of empirical studies with clients.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work student; SWG 611 completed with a C or better or currently enrolled; SWG 641 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 613, 616, 617, 618 or 691 with a C or better if completed
SWG	623	Agency and Community-Based Research in Social Work	Research design techniques and data collection in human service agencies and communities. Analysis for program evaluation and needs assessment.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Soc Wrk student; SWG 519 or 520 completed with C or greater or currently enrolled; Pre or Co-requisite: SWG 680 with C or greater if completed, or currently enrolled.
SWG	626	Crisis Intervention and Short-Term Treatment	Comprehensive analysis of crisis and solution-focused brief intervention strategies and approaches used in advanced social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either:MSW or MSW Adv Standing; AND completed SWG 610 with a C or greater
SWG	626	Crisis Intervention and Short-Term Treatment	Comprehensive analysis of crisis and solution-focused brief intervention strategies and approaches used in advanced social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	630	Brief Social Work Intervention	Concepts and techniques of solution-focused, systematic, and strategic approaches to therapy in the context of brief therapy.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	631	Advanced Policy Analysis	Supports advanced generalist practice with emphasis on policy analysis and philosophy and politics of resource allocation and social welfare.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either: MSW or MSW Adv Standing
SWG	631	Advanced Policy Analysis	Supports advanced generalist practice with emphasis on policy analysis and philosophy and politics of resource allocation and social welfare.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	632	Social Policy and Services II	Develops advanced knowledge and skills in social welfare policy analysis, policy formulation, and advocacy and intervention for policy change.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG531 with a grade of C or greater or be currently enrolled
SWG	633	Child Welfare Services	Examines, using ecological and system theories, services that supplement, support, and substitute for parental care of children.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 542 completed with a Y or currently enrolled

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SWG	641	Advanced Practicum: Direct Practice I	With SWG 642, two consecutive semesters (480 hours) of supervised social work practice in an approved placement related to the student's career goal. fee	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 511 completed with a C or better or currently enrolled; SWG 542 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 611 (with a C or better if completed)
SWG	642	Advanced Practicum: Direct Practice II	See SWG 641. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work; SWG 511 & SWG 611 with a C or greater or be currently enrolled; SWG 542 & SWG 641 with a Y or be currently enrolled; Pre or Co-requisite: SWG 613, 616, 617, 618 or 691 with a C or greater if completed
SWG	643	Advanced Practicum: Planning, Social Work Administration, and Community Practice I	With SWG 644, two consecutive semesters (480 hours) in social work practice in an approved placement related to the student's career goal. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 511 completed with a C or greater or currently enrolled; SWG 542 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 681 or SWG 682 with a C or greater if completed
SWG	644	Advanced Practicum: Planning, Social Work Administration, and Community Practice II	See SWG 643. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work student; SWG 511 with C or better; SWG 542/643 with a Y grade; SWG 681 or 682 with a C or better; Pre/Co-requisite: SWG 680 with C or better
SWG	645	The Professional Experience III	250 hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Must be a student in either MSW or MSW Adv Standing; AND completed SWG 543 with a grade of C or greater; AND be co-enrolled in SWG 610 and SWG 693
SWG	646	The Professional Experience IV	250 hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Must be a student in either MSW or MSW Adv Standing; completed SWG 645 with a grade of C or greater; AND be co-enrolled in SWG 693, and co-enrolled in SWG 612
SWG	650	Social Work Ethics/Law		N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	653	Theory and Practice of Family Therapy	Provides advanced theoretical knowledge and family treatment models for the practice of social work with families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a student in either: MSW or MSW Adv Standing.
SWG	653	Introduction to Holistic Therapies	Provides advanced theoretical knowledge and family treatment models for the practice of social work with families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	654	Introduction to Sexual Abuse	Develops general knowledge and skills for working with persons who have been impacted by sexual abuse.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	655	Quality of Life	Addresses key elements of a healthy life style contributing to wellness and disease through experiential learning and evidenced-based research.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	656	Treating the Whole Person	Addresses treating the "whole person's" physical and behavioral health through interviewing, intervention, and treatment within the context of an interdisciplinary model.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a graduate student
SWG	657	Ancient Healing Traditions	Historical development and research of the ancient healing teachings of traditional Chinese medicine, Ayurvedic medicine, homeopathic, naturopathic, and indigenous medicine and how they are used in today's health systems.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	660	Clinical Supervision in Social Work.	Examines and practices the knowledge, skills, and values of becoming a social work supervisor in human service agencies.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 681 or SWG 682 completed with a C or greater or currently enrolled; Pre or Co-requisite: SWG 623 with C or greater if completed
SWG	681	Social Work Administration	Administrative skill building and theory application within human service nonprofit social work settings.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG580 with a grade of C or greater
SWG	682	Community Participation Strategies	Reviews strategies to involve citizens and the consumers of social and human services in community decision-making systems. Participation is viewed as a means to facilitate the empowerment of oppressed peoples.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG580 with a grade of C or greater
SWG	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	685	Program Planning in Social Services	Social services planning process; includes needs assessment, goals and objectives, program design, budgeting, management information systems, and program evaluation.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 681, 682; Co requisite, SWG 523
SWG	686	Developing Grants and Fund Raising	Identifies potential funding sources, technical and interpersonal/political aspects of proposal development and fund raising.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.

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SWG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisites: MSW or MSW Adv Standing student
SWG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		
SWG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: MSW or MSW Advanced Standing student
SWG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		Pre-requisites: Must be a student in either: MSW or MSW Adv Standing
SWG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		
SWG	697	Special Topics in Working with Diverse Groups	Provides practice strategies for clients of specific marginalized groups; addresses access to resources; describes the larger political context and policy issues that impact the particular group.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	3.		
SWG	697	Special Topics in Working with Diverse Groups	Provides practice strategies for clients of specific marginalized groups; addresses access to resources; describes the larger political context and policy issues that impact the particular group.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	3.		
SWG	700	Research Methods	Course on research methods in a specific discipline.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	720	Philosophy of Science Issues in Social Work	Critical examination of social science, social work practice, and policy in terms of philosophical assumptions and varying frames of reference.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student.
SWG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-15		Pre-requisite: Master or Doctor Social Work student.
SWG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		
SWG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Social Work	1-15		Pre-requisite: Master or Doctor Social Work student.
SWU	171	Introduction to Social Work	Descriptive and historical perspectives of social problems, social justice issues and society's response to them.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & H	
SWU	171-W	Introduction to Social Work: Social Problems and Social Justice	Descriptive and historical perspectives of social problems, social justice issues and society's response to them.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & H	
SWU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		

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SWU	250	Stress Management Tools	Helps students develop an understanding and behaviors to create a healthy balance in their lives by studying the bio/psycho/social aspects of wellness.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	291	Social Service Delivery Systems	Introduces federal and state social service delivery systems as well as private social service agencies. Explores purpose and structure of community resources. During the semester, students must complete 40 hours of service learning in a social agency.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 with a D or better or currently enrolled; Pre or Co-requisites: SWU 171 or SWU 271 (with a C or better if completed)
SWU	291-W	Social Service Delivery Systems	Introduces federal and state social service delivery systems as well as private social service agencies. Explores purpose and structure of community resources. During the semester, students must complete 40 hours of service learning in a social agency.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWU 171 with D or better or currently enrolled
SWU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	295	Foundations of Social Work Practice	Provides theoretical foundation and skill base necessary for social work interventions with individuals, small groups, and larger systems.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & C	PR: completed PGS100,101 or SOC101,301 with a D or greater or be currently enrolled in PGS101, or SOC101,301 AND completed SWU171,271 with a C or greater or be currently enrolled/enrolling AND completed SWU291 with a C or greater or be currently enrolled
SWU	301-W	Human Behavior in the Social Environment I	Introduces interrelation of bio-psycho-sociocultural systems and their effect on behavior, birth-adolescence, focused on southwestern ethnic and cultural groups.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	L	Pre-requisites: PGS 101 with a C or better; SOC 101 or 301 with a C or better; SWU 171 or SWU 271 with a C or better; SWU 291 with a C or better; BIO 120, BIO 201 or LSC 365 with a C or better
SWU	302	Human Biology for Social Workers	Overview of human anatomy and physiology, and the reciprocal relationship between physical and social environments. May be repeated for credit.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	303	Micro Human Behavior in the Social Environment	Human behavior in the social environment throughout the life cycle, analyzing theories of human development within an integrative multidimensional framework.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	L or SB	Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 completed with a D or greater or currently enrolled; Pre or Co-requisites: SWU 171, SWU 291 and SWU 295 (with a C or better if completed)
SWU	310	Social Work Practice I	Introduces social work methods, emphasizing the following skills: relationship development, cross-cultural interviewing, communication patterns, and case-recording.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWU 171 or SWU 271, SWU 291 & SWU 295 completed with a C or greater or be currently enrolled; Pre or Co-requisite: SWU 301 with a C or greater if completed
SWU	310-W	Social Work Practice I	Introduces social work methods, emphasizing the following skills: relationship development, cross-cultural interviewing, communication patterns, and case-recording.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must have completed SWU 171 or 271 and SWU 291 with a grade of C or greater or be currently enrolled.
SWU	320	Research Methods in Social Work	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: student must have completed SWU310 with a grade of C or greater or be currently enrolled or enrolling during the same term
SWU	321	Statistics for Social Workers	Teaches social work students how to use and interpret descriptive and inferential statistics in social work practice. May be repeated for credit.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	CS	Pre-requisites: student must have taken MAT114, MAT117, or MAT142 with a grade of D or greater or be currently enrolled
SWU	331	Social Policy and Services I	History, philosophy, and values of social welfare; function and role of social welfare in society; development of the social work profession and practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	H	Pre-requisites: must be a Social Work student and have completed the following with a C or greater or be currently enrolled: ECN 111 or 211, POL 110 or POL 310 or POS 110 or POS 310, SWU 171 or SWU 271, and SWU 291.
SWU	331	Social Policy and Services I	History, philosophy, and values of social welfare; function and role of social welfare in society; development of the social work profession and practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	H	Pre-requisites: must be a Social Work student and have completed the following with a C or greater or be currently enrolled: ECN 111 or 211, POL 110 or POL 310 or POS 110 or POS 310, SWU 171 or SWU 271, and SWU 291.
SWU	332	Social Policy and Services	Contemporary social, political, and economic issues. Special emphasis on poverty and inequality in the Southwest. Analysis and development of social welfare policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: student must have completed SWU310 with a grade of C or greater or be currently enrolled/enrolling AND must have completed ECN111 with a grade of D or greater or be currently enrolled
SWU	337	Early Childhood Intervention	Explores how child development theory affects practice with children and families, emphasizing development of young children and early intervention.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	340	Macro Human Behavior in the Social Environment	Human behavior in the social environment, focusing on groups, organizations and communities and examining theoretical perspectives in a macro context	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	Pre-requisites: student must have completed SWU301 with a grade of C or greater or be currently enrolled AND have completed SWU310 with a grade of C or greater or be currently enrolled or enrolling in the same term as SWU340
SWU	374	Diversity and Oppression in a Social Work Context	Issues of social inequality related to race, ethnicity, gender, sexual orientation, and disability. Emphasizes populations of the Southwest.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	Pre-requisite: student must have completed SWU310 with a grade of C or greater or be currently enrolled or be enrolling in the same term
SWU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		Pre-requisite: Master of Social Work student
SWU	402	Human Behavior in the Social Environment II	Sequel completing study of life span development and behavior which forms base for social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	Pre-requisites:Completed SWU 301 with a grade of C or greater
SWU	410	Social Work Practice II	Knowledge and skills in social work practice with individuals and families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU412 and SWU413; must have completed SWU301 and SWU310 with a grade of C or greater; AND must be a SW major AND must have completed PHI101,105, or 306 with a grade of D or greater or be currently enrolled
SWU	410-W	Social Work Practice II	Introduces generalist social work; major areas of knowledge, values and skills basic to the social work helping process focused on individuals and families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-reqs: must be a Social Work student and be co-enrolled in SWU 412 & 413; and have completed the following with a C or greater or be currently enrolled: PHI 101 or PHI 306, SWU 301, and SWU 310.

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SWU	411	Social Work Practice III	Knowledge and skills in social work practice with groups, communities, and organizations.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU414 and SWU415 AND must be a Social Work major or must have completed SWU410, SWU412, or SWU413 with a grade of C or greater or be currently enrolled
SWU	412	Field Instruction I	16 hours a week of supervised practice in an approved placement.	N	PRA	N	OPT	College of Public Programs	School of Social Work	3-5		Pre-requisites: must be taken concurrently with SWU410 and SWU413; must have completed SWU301 and SWU310 with a grade of C or greater; AND must be a Social Work major
SWU	412-W	Field Instruction I	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Social Work student; Co-requisites: SWU 410 and SWU 413
SWU	412-W	Field Instruction I	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Social Work student; Co-requisites: SWU 410 and SWU 413
SWU	413	Field Instruction Seminar	Field-focused seminar, including practice evaluation.	N	DIS	N	OPT	College of Public Programs	School of Social Work	1-3		Pre-requisites: Must be co-enrolled in SWU 410 AND SWU 412
SWU	413	Field Instruction Seminar	Field-focused seminar, including practice evaluation.	N	DIS	N	OPT	College of Public Programs	School of Social Work	1-3		Pre-requisites: must be taken concurrently with SWU410 and SWU412; must have completed SWU301 and SWU310 with a grade of C or greater; AND must be a Social Work major
SWU	414	Field Instruction II	16 hours a week of supervised practice in an approved placement. Y/E grade only. fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU411 and SWU415 AND must be a Social Work major or must have completed SWU410, SWU412, or SWU413 with a grade of C or greater or be currently enrolled
SWU	414	Field Instruction II	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: must be co-enrolled in SWU 411 and 415, and completed SWU 410 and SWU 413 with a grade of C or greater or be currently enrolled.
SWU	415	Integrative Field Seminar	Field-focused seminar to help students integrate practice and theory.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU411 and SWU414 AND must be a Social Work major or must have completed SWU410, SWU412, or SWU413 with a grade of C or greater or be currently enrolled
SWU	415	Field Instruction Seminar II	Field-focused seminar, including practice evaluation. 1.5 hours a week.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1.		Pre-requisites: must be co-enrolled in SWU 411 and 414, and have completed the following with a grade of C or greater or be currently enrolled: SWU 410, SWU 412, and SWU 413.
SWU	420	Practice-Oriented Research	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	420	Practice-Oriented Research	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must have completed SWU 301 with a C or greater or be currently enrolled; and completed CRJ 303 or EDP454 or JUS 302 or PSY 230 or QBA 221 or SBS 304 or SOC 390 or STP 226 or STP 220 with a grade of C or greater.
SWU	432	Social Policy and Services	Contemporary social, political, and economic issues. Special emphasis on poverty and inequality in the Southwest. Analysis and development of social welfare policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites:Completed SWU 301 with a grade of C or greater
SWU	442	Introduction to Practice with Children and Families in Child Welfare	Focuses on the characteristics, strengths, and service needs of families and children in the Child Welfare System.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Social Work student and have earned C or better in SWU 410, 412, and 413 or be currently enrolled.
SWU	444	Issues in School Social Work	Demonstrates how community, family, and school are interdependent using an ecological metaphor, and introduces school social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Social Work student and have earned C or better in SWU 410, 412, and 413 or be currently enrolled.
SWU	455	Social Work Practice Skills with Latinos	Focuses on communication skills necessary and appropriate for social work practice with Spanish-speaking clients and their families. Credit is allowed for only SWU 455 or SWG 555.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	457	Southwest Borderland Immigration Issues	Reviews immigration history, trends, policies, and legislation. Focuses on immigrant experience from economic, educational, social, political, familial perspectives in Southwestern U.S. Credit is allowed for only SWU 457 or SWG 557.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	474	Ethnic/Cultural Variables in Social Work	Basic conceptual approach to understanding ethnic and cultural variables of southwestern ethnic minorities and how these factors influence social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	
SWU	474	Ethnic/Cultural Variables in Social Work	Basic conceptual approach to understanding ethnic and cultural variables of southwestern ethnic minorities and how these factors influence social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	Pre-requisite: must have completed SWU 310 with a grade of C or greater or be currently enrolled
SWU	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Social Work	1-6		
SWU	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Social Work	1-6		
SWU	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Social Work	1-6	L	Pre-requisite: must be an honor student
SWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-7		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SWU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-3		Pre-requisite: Bachelor of Social Work student
SWU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-3		
TA	488	Elem Air Transport		Y	LEC	Y	CNV	Ira A. Fulton Engineering	INACTIVE - Dept Aeronautical Management Technology	3.		
TCL	101	Introduction to Transborder Chicana/o and Latina/o Studies	Historical and contemporary issues in Chicana/o and Latina/o communities; focuses on the diverse economic, sociological, cultural, and political status.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	111	Introduction to Transborder Chicana/o and Latina/o Culture	Interdisciplinary analysis of customs, values, belief systems, and cultural symbols; special attention is given to cultural continuity and change.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	N	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-3		
TCL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	201	Transborder Society and Culture I: Interdisciplinary Approaches	Intensive overview of Mexican origin and Latina/o populations through various sociological, historical, anthropological, economic, political, cultural, literary, and analytical lenses.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	202	Transborder Society and Culture II: Contemporary Issues	Examines contemporary transborder belief systems, ideologies of health, gender, familial structures, and community development within a transnational context.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	
TCL	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	211	Transborder Chicano/a and Latino/a Poetry	Writing seminar on Chicana and Chicano poetics and intensive creative writing workshop.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	220	Transborder Chicano/a and Latino/a Cultural Expression	Interrelation among economic, social, and political status and forms of artistic expression; i.e., music, dance, drama, literature, and graphic arts.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	270	Race and Gender in American Film	Explores how Hollywood shapes perceptions of race and gender in American society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	Credit is allowed for only FMS 270 or TCL 270
TCL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	303	Transborder Theory	Studies historical, cultural, and economic theories contributing to understanding the emergence of Mexican and Latina/o origin populations in the Americas.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	304	Transborder Research Methods	Emphasizes critical skills: quantitative/qualitative, spatial, archival, and reflexive methodologies, including ethnographic, biographical, historical, and mapping.	N	RSC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	305	Transborder Practicum and Field Research.	Field work with faculty incorporating practical experience while honing research skills and ability.	N	FLD	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre or Co-requisites: TCL 303 and TCL 304 with a D or better if completed
TCL	310	Transborder Chicano/a and Latino/a Folklore of Southwest North America	Analyzes Chicana and Chicano folk beliefs, traditions, and practices.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	314	Transborder Regional Immigration and Economy	Historical/contemporary overview of Mexican immigration into and within the U.S.; factors affecting population movement, settlement patterns, and migrants' incorporation into society.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or SB) & H & C	
TCL	315	Chicana/o and Latina/o Family Structures	Traditional and changing family relationships; emphasis on gender and intergenerational relations and impact of modern society on traditional family values.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	
TCL	321	Transborder Community Development and Health	Emphasizes core concepts and practices relevant to regional community development and health, including demographic health indicators, individual, and community models.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites: TCL 101 with D or better or currently enrolled
TCL	323	Latino Health Issues	Health issues among Chicanos and other U.S. Latinos; interplay among political economy, health, family, culture, and community.	N	LEL	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	4.	SB & C	
TCL	326	Health of Chicanas and Latinas	Examines gender, ethnicity, and health; critical issues affecting health status of Chicanas and Latinas.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	Pre-requisites: TCL 101 with a D or better or currently enrolled

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TCL	327	Health and Migration	Focuses on health status among various immigrants; health trajectories following migrations, adaptive behaviors, health practices, and the role of policy.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	Pre-requisites: TCL 201 with a D or better or currently enrolled
TCL	328	Latina/o and Latin American Religions and Cultures	Surveys the formative myths, rituals, and symbols and religious expressive cultures of U.S. Latinos and Latin Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	331	Mexican American History to 1900	Mexican American history from pre-Hispanic origins to frontier journeys north through 19th-century life in the U.S. Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & H & C	
TCL	332	Mexican American History Since 1900	Traces the formation of Mexican American communities across the rural and urban U.S. and examines 20th-century immigration from Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & H & C	
TCL	335	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites:Completed ENG 101 & ENG 102 with a grade of C or better, or currently enrolled. If credit has been received in HST 323, you may not enroll in TCL 335
TCL	340	Chicana/o and Latina/o Politics and Policy	Historical/contemporary analysis of Chicana and Chicano political ideologies, attitudes, strategies, and movements; relations with governmental agencies; and public policy issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	
TCL	341	Policy Issues in Chicana/o and Latina/o Urban Settings	Historical, demographic, and sociological overview of the status of Chicanas and Chicanos in urban settings as well as the public policy relevance.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	342	Social Demographics of Latino Populations	Provides an introduction to social demography of Latinos in the U.S. from the 19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	
TCL	350	Transborder Mexican and Chicano/a Artistic Production	Overview of Mexican and Mexican American artistic production from colonial times to present; emphasis on religious and folk art.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C & G	
TCL	351	Transborder Chicano/a and Latino/a Art	Intensive analysis of contemporary Chicana and Chicano art movement as appraised within the context of contemporary American art and the art of Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	352	Chicana/o Film	Explores how Chicano and Chicana filmmakers have interpreted the Chicano experience through the medium of film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	Pre-requisites:If you have credit for ENG 363, you may not enroll in TCL 363. Completed ENG 101, or ENG 107, or ENG 105 with a D or better or be currently enrolled
TCL	364	Transborder Chicana/o and Mexican Literature of Southwest North America Before 1917	Offers a historical panoramic view of the political, intellectual, social, economic, and artistic development of the Spanish-speaking people of the Southwest. May be taught in Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	Pre-requisites: SPA 314 or 316 with C or better
TCL	370	Signs of Aliens: Semiotics of Film and Popular Culture	Introduces semiotics and cultural studies; looks at various meanings ascribed to the sign of the alien.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU	
TCL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	410	Race, Medicine, and the Body	The ways in which medicine, disease, and health outcomes are affected by culture, gender, and social location.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L	
TCL	422	U.S.-Mexico Border Health	Focuses on identifying health issues affecting Latino/Mexican families in the U.S.-Mexico borderlands using basic epidemiological techniques to analyze regional data.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites: TCL 321 with D or better or currently enrolled
TCL	424	Theory and Practice of Community Development and Health	Foundations of methodology of community mapping and establishment of community diagnosis, media literacy and advocacy applications for community-based public health.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	Pre-requisites: TCL 321 completed with D or better or currently enrolled
TCL	443	Political Ecology of the Border	Using a political ecology approach, focuses on the creation of border communities of Southwest North America.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & G	
TCL	444	The Ethnography of Mexican Border Rural Settings	Focuses on the internal characteristics of a selected Mexican rural border towns and villages; analyzes the dynamics of development.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & G	
TCL	445	Transborder Latin American Short Story	Studies the modern Latin American short story, with primary focus on the development of its literary and cultural tradition. Uses a transregional and transborder approach, focusing on the interconnections of this modern genre across the borders of Spanish América. Takes a long historical view of the genre by reading representative stories of important literary movements and the aesthetic and cultural values they promoted and fostered.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	446	Comparative Bilingual Latina/o Poetics	Comparative study of contemporary bilingual Latina/o poetry. Focuses on two specific U.S. ethnic ¿minority¿ groups--Mexican- (or Chicanos) and Puerto Rican-Americans (or ¿nuyoricans¿)--who have long and strong literary traditions of bilingual poetry. The significant feature of both bodies of poetry is the interactive mixture of their base languages: Spanish and English.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	
TCL	464	Latina/o Literature	Development of Latina/o literature. Study of genres and themes; attention to literary antecedents of the new U.S.-based Latina literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	Pre-requisites:If you have credit for FMS 464, you may not sign up for TCL 464

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TCL	465	Chicana/o and Latina/o History on Film	Explore history on film; the processes, developing critical perspectives about historiography, and film in relation to U.S.-Mexican borderlands.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	Pre-requisites:Completed TCL 201 with a grade of D or better, or currently enrolled. May not enroll in TCL 465 if received credit for FMS 465
TCL	466	Constructing the Border on Film	Explores the U.S.-Mexico border on film, examining how border images have been constructed and shaped over time.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	470	Race, Sex, and Identity Online	Relying on critical and cultural theory, addresses the relationship between race, sex, and social identity online.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU	Pre-requisites: ENG 102, 105 or 108 completed with a C or better; You may not enroll in TCL 470 if you have credit for FMS 470
TCL	471	Latinos In Hollywood	Studies representations of Latinos in film; stereotyping, politics of metaphor, allegory, star discourse, self-representation, resistance, and independent film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-12		
TCL	485	Chicana and Latina Writers	Critical reading of Mexican American women authors; emphasis on contemporary (post-1970) poetry, novels, short stories, and essays.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	
TCL	488	Border Global Narratives	Studies four general and different border areas through literature. Through literary-cultural texts, looks into peoples' experiences of migration to and from the homelands of Mexico, Haiti, the Dominican Republic, Cuba, and the Puerto Rican isle to the U.S. These experiences are never uni-directional but are characterized by constant back-and-forth movement.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	
TCL	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-6		
TCL	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-6	L	Pre-requisites: Must be an Honors student
TCL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-7		
TCL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	N	LEC	Y	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-3		
TCL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TDM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students. Must have taken 25 or fewer semester hours. Consulting an academic advisor before enrolling is recommended.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
TDM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	205	Introduction to Travel and Tourism	Examines the components of the travel and tourism industry at the state, national, and global levels.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
TDM	210	Community Services and Professions	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: PRM 120 (or REC 120) with C or better if completed; must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or co-requisites: PRM 120 (or REC 120) with a C or better if completed

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TDM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-or Co-requisites: PRM 120 (or REC 120) with a C or better if completed
TDM	325	Tourism Accommodations	Local, national, and international overview of the lodging and food service industries.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have completed REC305 or TDM205 with a grade of C or better or be currently enrolled
TDM	345	Meeting and Convention Planning	Basic aspects and skills in planning meetings and conventions. Industry and market overview of certified meeting planners.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have completed REC305 or TDM205 with a grade of C or better or be currently enrolled
TDM	350	Tourism Marketing	Critical examination of marketing principles; applications to travel, tourism, and related industries in diverse settings, including local, national, and international.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: TDM 205 (REC 305) with a C or better or be currently enrolled; must have completed at least 45 hours
TDM	372	Tourism Planning	Applies economic and regional development concepts and theories to destination product development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: Tourism Development & Mgmt or Recreation (Tourism) students; TDM 205 (REC 305) & ENG 102 completed with a C or better or currently enrolled; 2.50 ASU GPA; 45 or more hours; MAT 142 or higher
TDM	386	Convention Sales and Management	The role of convention and visitors bureaus or resort managers, including economic impacts of markets, structure, governance, membership, and advertising.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
TDM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	401	Tourism Management	Principles of tourism administration and their successful application. Covers the topics on legal, financial, public relations, and human resources.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must be a Tourism Development & Mgmt or a Recreation (Tourism Management) student; Pre- or Co-requisite: TDM 372 (with a C or better if completed)
TDM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: TDM 401 or REC 462 (with a C or better if completed); must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre- or Co-requisites: TDM 401 (or REC 462) with a C or better if completed; must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	415	Tourism Transportation Systems	Examines the role of various modes of transportation in domestic and international tourism development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must have earned grade of C or better in REC305 or TDM205 or be currently enrolled.
TDM	448	Heritage and Cultural Tourism	Provides a solid conceptual understanding of the issues, problems, and management implications associated with heritage and cultural tourism.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or REC 120 with a C or better or be currently enrolled
TDM	458	International Tourism	Global examination of international tourism and its significance as a vehicle for social and economic development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
TDM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Prerequisites: TDM 402 (or REC 482) and TDM 403 (or REC 499 Pre Internship Workshop) with a C or better or currently enrolled; Must be a Tourism Development and Management or Recreation (Tourism concentration) student
TDM	480	Nature-Based Tourism	Examines the interaction of tourism with culture, natural environment, as well as the impacts of tourism on the environment.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or TDM 205 with a D or better or currently enrolled
TDM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
TDM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
TDM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TDM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
TEL	501	Introduction to Research and Evaluation in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
TEL	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
TEL	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
TEL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
TEL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	683	Field Work	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	GRD	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	701	Assessment Policies, Issues, and Practices	Critical thinking about assessment data and other information sources to make inferences, judgments, and predictions about reality in schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	702	Dynamic Contexts of Education	Explores current ethical issues influencing leadership decisions with a focus on real problems in the educational setting.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	703	Innovation in Teaching and Learning	Development and psychological processes of human cognition, motivation, and performance applied to cognitively diverse, English language learners, adult professional development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	704	Leading Change in Educational Organizations	Develops understanding of dynamic and systemic nature of organizations, with emphasis on leadership for building organizational capacity and learning	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	711	Strategies for Inquiry	Develops knowledge and skills for research and program evaluation that foster innovation in education that leads to improved student learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	712	Mixed Methods of Inquiry	Methods for combining qualitative and quantitative inquiry in action research, evaluation, and data-based decision making.	N	SEM	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	713	Applied Mixed Methods of Inquiry	Data collection, analysis, interpretation in studies combining qualitative and quantitative inquiry in action research, evaluation, and data-based decision making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TEL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		
TEL	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	795	Continuing Registration		N	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
TEL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		
TEL	111	Exploration of Education	Education as an instrument in the development of the individual and society and its significance as an American Institution.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
TEL	111	Exploration of Education	Education as an instrument in the development of the individual and society and its significance as an American Institution.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
TEL	212	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
TEL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	311	Instruction and Management in the Inclusive Classroom	Planning and delivering instruction, organizing and managing classrooms, and making adaptations for English language learners and students with special needs. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	311	Instruction and Management in the Inclusive Classroom	Planning and delivering instruction, organizing and managing classrooms, and making adaptations for English language learners and students with special needs. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 1 students; BLE 312, TEL 313, TEL 314, TEL 315 and TEL 396 or Block 1A students; TEL 313, TEL 314 and TEL 396 or PDS (Professional Development School) students as appropriate
TEL	313	Educational Technology in the K-12 Curriculum	Applies and integrates educational technologies in all curricular areas; examines theoretical and practical issues for diverse learners. Fee.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	313	Educational Technology in the K-12 Curriculum	Applies and integrates educational technologies in all curricular areas; examines theoretical and practical issues for diverse learners. Fee.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 1 students; BLE 312, TEL 311, TEL 314, TEL 315 and TEL 396 or Block 1A students; TEL 311, TEL 314 and TEL 396 or PDS (Professional Development School) students as appropriate
TEL	314	Classroom Assessment	Assessment and evaluation of student leaning; emphasizes integration and adaptation of curriculum, instruction, and evaluation of all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	314	Classroom Assessment	Assessment and evaluation of student leaning; emphasizes integration and adaptation of curriculum, instruction, and evaluation of all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 1 students; BLE 312, TEL 311, TEL 313, TEL 315 and TEL 396 or Block 1A students; TEL 311, TEL 313 and TEL 396 or PDS (Professional Development School) students as appropriate
TEL	315	Child and Adolescent Development	Physical, cognitive, social, and emotional development during childhood and adolescence; developmentally appropriate principles and practices to facilitate development for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
TEL	315	Child and Adolescent Development	Physical, cognitive, social, and emotional development during childhood and adolescence; developmentally appropriate principles and practices to facilitate development for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	Co-requisites: Block 1 students; BLE 312, TEL 311, TEL 313, TEL 314, and TEL 396 or Block 1B students; BLE 312 and TEL 396 or PDS (Professional Development School) student as appropriate
TEL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	396	Field Experience I	Observation in classrooms and individual and small group instruction. Fee.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Pre-requisites: College of Teacher Education and Leadership students only

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TEL	396	Field Experience I	Observation in classrooms and individual and small group instruction. Fee.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
TEL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
TEL	492	Honors Directed Study		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
TEL	493	Honors Thesis		Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
TEL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
THA	101	Elementary Thai I	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose readings in Thai script. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
THA	102	Elementary Thai II	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:THA 101 with a grade of C or better
THA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
THA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	201	Intermediate Thai I	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:THA 102 with C or better
THA	202	Intermediate Thai II	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:THA 201 with a grade of C or better or currently enrolled
THA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
THE	307	Acting:		N	LEC	N	CNV	Herberger College of the Arts	School of Theatre and Film	3.		
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisite(s): non-Theatre and non-Film students only
THE	125	Orientation to Theatre and Film	Orientation to university and school resources and procedures. Career planning and guidance. Community-building exercises. Attendance and written response to performance and media events. Required for BA Theatre and BA Film (film and media production concentration) majors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisites: Theatre and Film students only
THE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THE	220	Principles of Dramatic Analysis	Analysis, evaluation, and interpretation of dramatic literature for theatrical production. Emphasizes the traditional canon of dramatic literature and traditional structures and forms of drama.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	L or HU	Prerequisites: Fine Art students only; Must have completed THE125 with a B or greater; Must have completed ENG101, 105 or 107 with a C or greater or be currently enrolled
THE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	301	Film: the Creative Process II	Advanced study of contemporary cinema history and film techniques; analyzes social changes in film, multicultural filmmaking, and the star system.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites:Must have completed FMP201or THE300 with a D or greater or be currently enrolled
THE	320	History of the Theatre I	Traces major developments in theatre production from its beginning to the 17th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites:Must have completed THE220 with a C or greater or be currently enrolled
THE	321	History of the Theatre II	Traces major developments in theatre production from the 17th century to modern times.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites: Must have completed THE220 and THE320 with a C or greater or be currently enrolled
THE	322	Theatre History and Culture	Critically examines major developments in theatre history, historiography, and dramatic literature. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites: Must NOT be a Theatre student
THE	325	Play Reading for Educational Theatre	Assigned independent readings in plays for secondary school play production.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisites: Must be a Theatre student
THE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	403	Independent Film	Examines the independent film movement from the French New Wave to contemporary independent filmmakers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	404	Foreign Films and Filmmakers	Films and filmmakers from Europe, Asia, Australia, the Far East, South America, and the Caribbean. Emphasizes cultural content and filmmaking philosophies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	G	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled

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THE	405	Film: Great Performers and Directors	Examines processes and influences of one or more great film performers and/or directors. May be repeated for credit when topics vary. Fee (hybrid/Internet).	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	406	American Multicultural Film	Examines Native, African, Asian, and Latina and Latino American films and film artists in cinema history and production. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & C	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	421	Shakespeare: Stage and Film	Examines Shakespeare's plays as written texts, stage performances, and film productions. Focuses on play reading, performance analysis, and film critique. Online course.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Pre-requisites: ENG 102(or Eng 105, or 108) with a grade of D or better, or currently enrolled
THE	422	Latina and Latino Theatre	Readings, discussion, video of dramatic literature and production styles of Latina and Latino playwrights and theatre companies in the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: ENG 102, ENG 105 or ENG 108 with a C or greater or currently enrolled OR Theatre Masters students
THE	423	African American Theatre	Readings, discussion, video of the history and dramatic literature of African American playwrights and theatre companies in the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	C	Prerequisites: Must be a Masters student , or must have completed ENG102, ENG105, or ENG108 with a C or greater or be currently enrolled
THE	424	Trends in Theatre for Youth	Surveys the history, literature, and contemporary practices in theatre for youth.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THE	426	Pre-Columbian Theatre of the Americas	Selected studies in pre-Columbian theatre forms and texts of the Aztecs, Mayans, Caribbean islands, and North American Indians.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed ENG102, ENG105, or ENG108 with a C or greater or be currently enrolled OR be a Masters Theatre student
THE	430	History of Costume: Western Tradition	Studies major costume styles throughout history of Western civilization and how these fashions reflected society. Explores how styles can be used by theatrical costumers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THE	440	Experimental Theatre and Performance	Explores 20th-century modernist theatrical forms and movements and development of alternative strategies for analyzing contemporary theatre and performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: THE 220, 320, 321; Must be a Theatre student
THE	480	Methods of Teaching Theatre	Applies materials, techniques, and theories for theatre with 9th- through 12th-grade students. Emphasizes curriculum development and praxis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Junior standing and above
THE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		Pre-requisites: Must be a Fine Arts student; Must be an Honors student
THE	493	Honors Thesis		N	THE	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be a Fine Arts student ; Must be an Honors student
THE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-7		
THE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THE	500	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre student
THE	504	Studies in Dramatic Theory and Criticism	Surveys dramatic theory, criticism, and aesthetics as they relate to contemporary performance.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre student
THE	505	Critical Theory and Performance	Surveys contemporary theories of culture as they apply to theatre and performance studies.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre student
THE	510	Studies in Literature	Assigned individual reading program in standard sources and masterpieces in theatre literature. May be repeated for credit.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisite: Must be a Theatre Education or Theatre for Youth student
THE	520	Theatre History and Literature	Surveys historiographical issues and dramatic literature related to key periods in theatre history.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre student
THE	524	Advanced Studies in Theatre for Youth	In-depth study of the history, literature, and contemporary practice of theatre for young audiences.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must be a Theatre Education or Theatre for Youth student
THE	525	Advanced Studies in Theatre for Youth II	Project-oriented explorations of theory and practice of contemporary theatre for youth audiences.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must have completed THE524 with a B or greater or be currently enrolled
THE	562	Literary Management Workshop	Advanced literary management for the contemporary theatre, including trends in new play development, festivals and productions throughout the United States. Participation in Arizona Playwriting Competition.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must have completed THP560 with a B or greater
THE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre student
THE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre student
THE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre student

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THE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Must be a Graduate student
THE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a MA Theatre student
THE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre student
THE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre student
THE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THE	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Pre-requisite: Must be a Theatre Education or Theatre for Youth student or have instructor approval.
THE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre student
THE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre student
THE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-15		
THE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-15		
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
THE	201	Film: Creat Procss I	Elements of the theatrical film: cinematography, sound, editing, directing, acting, scriptwriting, producing, and criticism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
THE	320-W	History of the Theatre	Traces major developments in theatre production from its beginning to the 17th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
THE	321	History of Theatre	Traces major developments in theatre production from the 17th century to modern times.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
THE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THE	420	History Am Theatre		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
THE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		

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THE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
THE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
THE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must NOT be a Theatre student
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: You must NOT be in the following 3 Fine Arts Plans FATHEPREBA,FATHEBA, FATHESBA, or FATHEABA
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	102	Acting I: Fundamentals	Explores and applies basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student
THP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	201	Theatre Production Crew	Participation in university mainstage theatre production backstage and board operations.	N	LAB	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THP	202	Acting II: Scene Study	Rehearsal techniques and application of action to dramatic text. Emphasizes realistic drama.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP101 or THP102 with a B or greater or be currently enrolled; must have completed THE220 with a C or greater or be currently enrolled ;Corequisite: THE220
THP	213	Introduction to Technical Theatre	Procedures of technical theatre production and demonstration. Topics include design and construction of scenery, lighting, and properties. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	4.		Prerequisites:Must be a Theatre student
THP	214	Introduction to Costuming	Basic principles of costume design, construction, and survey of selected historical periods including makeup styles. Costume design project and production experience. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	4.		Prerequisites:Must be a Theatre student
THP	218	Directing I: Introduction to Directing	Overview of emergence and practice of the director's craft. Explores director's role and responsibilities, play selection, conceptualizing, ground plans, blocking. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Fine Arts Theatre student; THE 220 AND THP 102 with a C or greater .
THP	251	Student Production Board	Performing arts entrepreneurship taught through the experience of operating a student-produced theatre company.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	260	Introduction to Playwriting	Basic skills of playwriting including exercises in monologues, scenes, and conflict and resolution, leading to completion of a one-act play.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG101,105 OR 107 with a C or greater or be currently enrolled
THP	261	Introduction to Screenwriting	Basic skills of screenwriting including exercises in conflict and resolution, plot points, and theories of three-act structure and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG101,105 OR 107 with a C or greater or be currently enrolled
THP	272	Acting: Introduction to Movement	Movement vocabulary and physical training in relaxation, alignment, conditioning, and stage presence. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP101 or THP102 with a B or greater or be currently enrolled
THP	277	Acting: Introduction to Voice	Exercises and techniques to free the voice and improve quality and projection. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP101 or THP102 with a B or greater
THP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	301	Theatre Production	Participation in university mainstage theatre productions (e.g., acting, construction, stage management).	Y	LAB	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-2		Prerequisites:Must have completed THP213 or THP214 with a C or greater or be currently enrolled
THP	302	Acting III: Advanced Techniques	Advanced practice in methods, skills, and research for rehearsal and performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 101 (or THP 102), THP 202, THP 272, THP 277 and THE 220 with D or better

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THP	307	Acting: Research and Performance	Acting in theatre projects, productions, or collaborative performances in directing classes. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisites:Must have completed THP101 or THP102 with a C or greater or be currently enrolled.
THP	311	Improvisation with Youth	Basic materials, techniques, and theories for facilitating improvisational drama with children and youth. Not open to freshmen.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must NOT be a Freshman student
THP	311	Improvisation with Youth	Basic materials, techniques, and theories for facilitating improvisational drama with children and youth. Not open to freshmen.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Academic Level must not equal Freshman
THP	312	Puppetry with Children	Construction and manipulation of puppets; practice in performance skills. Emphasizes educational and recreational uses of puppetry by and with children. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must NOT be a Freshman or Sophomore student
THP	312	Puppetry with Children	Construction and manipulation of puppets; practice in performance skills. Emphasizes educational and recreational uses of puppetry by and with children. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Academic Level must not be equal to Freshman or Sophomore
THP	313	Fundamentals of Design	Art and practice of scenic, costume, and lighting design for the theatre and the media.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP213 or THP214 with a C or greater or be currently enrolled
THP	317	Stage Management	Readings in stage management and participation as a stage manager in a university theatre production.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student; Corequisite: THP301
THP	318	Directing II: Intermediate Directing	Explores approaches to staging and composition. Studio work culminates in presentation of a fully rehearsed ten-minute play.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP218 AND THP213 or THP214 with a C or greater or be currently enrolled
THP	320	Acting: Solo and Collaborative Performance	Creation and development of original performance art works combining text, movement, multimedia, visual art; the actor as writer, designer, performer.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	322	Acting: Voice-Overs and Radio Drama	Applies effective vocal techniques to commercials, books on tape, radio dramas. Preparation of audition tape, performance in radio drama.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	331	Costume Construction	Uses of materials and techniques for stage costumes with actual construction of period apparel. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP214 with a C or greater or be currently enrolled.
THP	340	Scene Design	Studio projects in designing scenery for contemporary stages. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite:Must have completed THP 213 with a grade of C or greater and THE 220 with a grade of C or greater or be currently enrolled.
THP	345	Lighting Design	Principles and theory of stage lighting design, including design process and execution, equipment, and light plots. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Sophomore standing or above
THP	350	Sound Design	Introduces the equipment, process, and recording techniques used in sound design for the theatre. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a BA Theatre major OR a Fine Arts BFA student
THP	360	Intermediate Playwriting	Continued development of skills in playwriting through specific exercises and completion of a full-length play.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG210 or THP260 with a C or greater
THP	361	Intermediate Screenwriting	Character and dialogue development, choosing correct structure, importance of subplots, developing a story into a completed thirty-page screenplay.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 261 with D or better or currently enrolled
THP	372	Acting: Advanced Movement	Movement techniques for the classical and nonrealistic theatre.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP272 with a B or greater or be currently enrolled; must be junior academic level or higher
THP	377	Acting: Voice and Speech	Introduces phonetic alphabet, exercises, and techniques for voice and speech improvement. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP277 with a B or greater or be currently enrolled; Junior academic level or higher
THP	378	Acting: Stage Dialects	Major dialects needed for actors; techniques for researching and learning dialects; phonetic analysis of dialects.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP377 with a B or greater or be currently enrolled; Junior academic level or higher
THP	385	Acting: Classical and Poetic Drama	Rehearsal and performance of Shakespeare and other classical playwrights. Emphasizes understanding poetic language, vocal and physical skills.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP277 with a B or greater or be currently enrolled
THP	386	Acting: the Meisner Approach	Improvisations and exercises developed by Sanford Meisner applied to scene work.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP 101 or THP 102 with a B or greater or be currently enrolled
THP	387	Acting: TV and Film	Professional television and film acting techniques, terminology, and on-camera experience. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP101 or THP102 with a B or greater or be currently enrolled OR must be a Film and Media Production student.
THP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	401	Theatre Practicum	Production assignments for advanced students of technical production, stage and business management, and design.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-2		Prerequisites: THP 301 with a C or better, or Master of Arts or Master of Fine Arts student
THP	406	Advanced Scenography	Process of production collaboration among scenographers, directors, and playwrights. Taught in conjunction with THP 519.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master in Fine Arts student; THP 340 plus one of the following: THP 214, THP 313, or THP 345 completed with a C or better
THP	411	Methods of Teaching Drama	Applies materials, techniques, and theories with grades K-8 youth. Regular participation with children.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Graduate student OR must have completed THP311 with a C or greater or be currently enrolled
THP	418	Directing III: Advanced Directing	Studio work building on skills learned in intermediate directing, culminating in the presentation of a fully rehearsed one-act play.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 318 with a C or greater or be currently enrolled OR Herberger Master of Art or Master of Fine Arts students
THP	428	Theatre and the Future	Capstone course exploring visions of the future of theatre. Results in a project in creative or scholarly form.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student ; Must have completed THE440 AND THP201 or THP301 with a C or greater
THP	430	Costume Design	Principles of costume design with projects in both modern and period styles. Includes budgets and fabric/pattern estimates.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre Scenography or Performance Design student OR must have completed THP214 with a C or greater or be currently enrolled
THP	431	Advanced Costume Construction	Specialized training in costume construction problems and crafts with projects in tailoring, millinery, and period accessories.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP214 AND THP331 with a C or greater or be currently enrolled in both OR must be a Theatre Scenography or Performance Design student

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THP	435	Advanced Technical Theatre	Selection of materials, drafting of working drawings, tool operation, and construction techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 AND THP345 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	440	Advanced Scene Design	Advanced studio projects in designing scenery for a variety of stage forms. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	441	Scene Painting	Studio projects in painting stage scenery. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	442	Drawing	Techniques in drawing and rendering for scenic, costume, and lighting design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student
THP	444	Drafting for the Stage	Fundamentals of and practice in graphic techniques for the stage. Introduces computer-aided design for the stage. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP213 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	445	Advanced Lighting Design	Specialized techniques in stage lighting. Advanced application of design process, graphic techniques of design presentation, and use of qualities of light. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP345 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student AND have completed THP444 with a B or greater or be currently enrolled
THP	450	Theatre Organization and Management	Overview of nonprofit arts: organizational design, strategic planning, financial management, and leadership.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student
THP	451	Student Production Board	Performing arts entrepreneurship taught through the experience of operating a student-produced theatre company.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites:THP 450 with a grade of D or better, or co-enrolled
THP	460	Advanced Playwriting	Practice and study of creating characters, dialogue, scenes, plays, and monologues for the stage, culminating in a full-length script.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Fine Arts BFA student; Must have completed THP360 with a C or greater or be currently enrolled
THP	461	Scripts in Progress	Studio work with the instructor, centered on revisions of original plays.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite:Must have completed THP460 with a C or greater or be currently enrolled
THP	481	Secondary School Play Production	Methods of directing, designing, and coordinating play production experiences at the secondary school level.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	482	Theatre for Social Change	Interactive theatre techniques (e.g., Boal, drama therapy, playback theatre) to examine and combat institutional, social, cultural, interpersonal, and personal oppressions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	C	Prerequisite:Must be a sophomore academic level or higher
THP	483	Acting: Viewpoints and Composition	Training in Anne Bogart's viewpoints and composition techniques; application to rehearsal and performance, and creating new work.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: THP 202 with C or better or currently enrolled; Junior academic level or higher OR Master of Fine Arts student
THP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites:Must be a Theatre or Film student
THP	489	Acting: Audition Techniques and Career Development	Familiarization with the business of performance: preparation and techniques for auditioning; self-promotion and marketing strategies; grant resources, interviews, and unions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP 101 or THP 102 and THE 220 with a B or greater; Junior academic level or higher
THP	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		
THP	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be an Honors student
THP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-7		Prerequisites: Must be a Theatre student
THP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THP	501	Performance: Solo Performance	Students begin to define their mission in art. Emphasizes the actor as a solo storyteller, speaking as herself or himself.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Prerequisites:Must be a Master of Arts or Master of Fine Arts student; must be a Theatre student
THP	502	Graduate Acting	Understanding and analyzing scripts and performance in order to be an effective actor/storyteller who speaks as a character. Projects focus on solo, duet performances. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Master of Arts or Master of Fine Arts student; must be a Theatre student
THP	503	Performance: the Ensemble	Ensemble, working with a playwright, creates a play that addresses social issues through improvisation and community input.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Prerequisites:Must be a Masters of Art or a Masters of Fine Art student; must be a Theatre student
THP	504	Acting: Styles	Fundamentals including combat, scansion, poetic language, acting style. Scene study, ensemble performance projects focused on Shakespeare, new scripts. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Pre-requisites: THP 503 with a grade of D or better
THP	505	Graduate Colloquium	Orientation to graduate study of theatrical practice; cohort development, introduction to the advanced literature and media in the art form. May be repeated for credit for up to 6 hours.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Pre-requisites: MFA Theatre student
THP	506	Design Collaboration	Process of production collaboration. Taught in conjunction with THP 519. May be repeated for credit. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Master of Arts or Master of Fine Arts student; must be a Theatre student

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THP	507	Acting: Advanced Research and Performance	Acting in advanced theatre projects, productions, or collaborative performance in directing classes. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisite:Must be a Master, Master of Fine Arts or PhD student
THP	509	Singing for Actors	Introduces the basics of singing technique. Breath control, resonance, articulation, exploration, and expansion of singing range.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisite:Must be a Master or Master of Fine Arts or PhD student
THP	512	Puppetry Workshop	Surveys puppetry in education, puppetry as an art form in design and performance. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites:Must be a Graduate student
THP	514	Projects in Community-Based Drama	Theories and techniques of improvisational theatre with emphasis on youth. Stresses professional development through projects combining research, theory, and practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite:Must be a Master, Master of Fine Arts or PhD student
THP	518	Advanced Directing Lab	Active discovery of directing concepts through practical exercises and collaboration; deconstruction of contemporary/classic literature. Explores director as primary artist.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be Master, Master of Fine Arts, or PhD Theatre student
THP	519	Directing: Works in Progress	Advanced projects in directing concentrating on a collaborative process among director, playwright, actors, and designers. Focuses primarily on new scripts or adaptations of literature. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Master of Arts, Master of Fine Arts, or PhD student; must be Theatre student
THP	520	Directing the New Play	Advanced methods and studies in directing, focusing on new play development.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: MFA Theatre student
THP	521	Performance I: Acting and Movement	Advanced studio work in the performer's body, voice, emotion, and imagination; emphasizes physical diagnostics and development.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites:must be in one of the MFA Fine Arts Theatre plans
THP	522	Performance I: Acting and Voice	Advanced studio work in the performer's voice; emphasizes physical awareness, vocal anatomy, training, and interpretation of texts.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: MFA Theatre student
THP	523	Performance II: Acting and Movement	Advanced studio work in the performer's body, voice, emotion, and imagination.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites:must be in one of the MFA Fine Arts Theatre plans
THP	524	Performance II: Acting and Voice	Advanced studio work in the performer's voice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: MFA Theatre student
THP	525	Design I: Conceptualization and Collaboration	Conceptual structures of the design process in theatre; development of creativity, flexibility, and communication in the collaborative process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: MFA Theatre student
THP	526	Design I: Drawing and Rendering	Development of drawing and rendering skills, techniques, and evaluation in the presentation, realization, and communication of performance design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: MFA Theatre student
THP	527	Design II: Conceptualization and Collaboration	Readings and research in stage management and participation as a stage manager in a university theatre production	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: MFA Theatre student
THP	528	Design II: Visualization and Presentation	Advanced skills and techniques in rendering, visualizing and presenting design ideas and materials for performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: MFA Theatre student
THP	530	Advanced Costume Design	Advanced studio projects in costume design for a variety of production forms.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Masters of Art or Masters of Fine Art student; must be a Theatre student
THP	540	Scene Design Applications	Conceptual and practical application of the design process including graphic and sculptural projects. Practical design problems investigated in a lab. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre Master of Art or Master of Fine Art student
THP	545	Lighting Design Applications	Advanced studio projects in stage lighting design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre Master of Fine Arts student
THP	560	Playwright's Workshop	Practice and study of creating characters, dialogue, scenes, plays, and monologues for the stage. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre Masters student
THP	561	Scripts in Progress	Studio work with the instructor centered on revisions of original plays. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre student
THP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites:Must be a Fine Arts Theatre student
THP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Master, Master of Fine Arts, or PhD student; must be a Theatre student
THP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite:Must be a Theatre Master student
THP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Pre-requisites:Must be a Graduate student
THP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites:Must be a Graduate student

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THP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite:Must be a Theatre Master student
THP	611	Research in Drama Education	Current research practices in drama education. Development and execution of research projects in ethnographic and arts-based models.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite:Must be a Masters or PhD Theatre for Youth student
THP	618	Theatre for Youth Practicum	Practical experience in theatre for youth projects: improvisation, education, production.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	2-3		Prerequisite:Must be a Theatre for Youth Masters or PhD student
THP	649	Design Studio	Projects include design of scenery, costume, lighting, or sound for lab or mainstage productions. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisite:Must be a Master of Fine Arts student; must be a Theatre student
THP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Master of Fine Arts or PhD student; Must be a Theatre student
THP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite:Must be a Masters, Master of Fine Arts or PhD student; Must be a Theatre student
THP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite:Must be a Master, Master of Fine Arts or PhD student; Must be a Theatre student
THP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite:Must be a Master, Master of Fine Arts, PhD student AND Must be a Theatre student
THP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TMC	233	Desktop Publishing and Infographics	Introduces software and hardware used for desktop publishing and infographics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
TMC	331	Quality Assurance	Instrumentation and methodologies for materials testing and quality control in various manufacturing processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Must have received a D or better in ABS350 or APM301 or QBA221 or STP420 or be currently enrolled.
TMC	346	Management Dynamics	Management challenges and the leadership skills needed to achieve organizational objectives in the changing industrial and technical environments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	396	Professional Orientation	Senior advising, industry presentations, and career counseling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Prerequisites:Must be at least a Junior AND be a Tech Sci BAS or BS student.
TMC	470	Project Management	Introduces techniques for managing small groups within larger organizations, including team building, motivating, planning, tracking activities, and computer tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Technology & Innovation BAS student OR IMC 346, IST 346, MGT 301 or TMC 346 with D or better and APM 301 or STP 420 with D or better. If you have credit for OMT 570, you may not enroll in TMC 470.
TMC	480	Senior Project	Capstone project experience refining skills in communication, research and information retrieval, critical analysis and criticism, and demonstrating technical competence in each student's area of study. Prerequisite: senior standing in DTM.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
TMC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		Prerequisites:Must be a Tech Sci/Engr; NonDegree or BAS or BS or MS or MS Tech Plan AND have a 2.25 GPA or better.

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TMC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		Prerequisites: Must be a Tech Sci: BAS or BS AND have 3.00 GPA or better.
TMC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		Pre Requisites: Graduate or Non Degree Students Only
TMC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TRC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
TWC	200	Impact of Communications Technology on Society	Organizational issues and development of technical communication. Activities include research, evaluations, and presentation of oral arguments in support of positions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have earned C or better in ENG 102, 105, or 108 or be currently enrolled
TWC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TWC	301	General Principles of Multimedia Writing	Introduces writing in a variety of media, understanding the consequences of integrating media, and effective editing techniques.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	347	Written Communication for Managers	Introduces strategies, formats, and techniques of presenting information to business and other workplace audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	400	Technical Communications	Planning and preparing technical publications and oral presentations based on directed library research related to current technical topics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: College of Technology and Innovation BS or BSE student; senior academic level; 2.25 minimum cumulative GPA; ENG 102, 105 or 108 with C or better
TWC	401	Principles of Technical Communication	Basic information design principles to produce effective written, oral, and electronic technical communication. Understanding of rhetorical and audience analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:If you have credit for TWC 501, you may not enroll in TWC 401
TWC	403	Writing for Professional Publication	Analyzes the market and examines the publication process, including the roles of the author, editor, and reviewer.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	411	Principles of Visual Communication	Basic principles of visual communication in print and electronic media. Understanding graphic and document design, including typography and color.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Students who have credit for TWC 511, may not enroll for TWC 411
TWC	421	Principles of Writing with Technology	Understanding historical and social impact of technology on writing, with emphasis on multimedia design, computer-mediated communication, and hypertext.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	431	Principles of Technical Editing	Basic principles of technical editing (for print and electronic media) including copyediting, reviews, standards, style, and project management.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	443	Proposal Writing	Develops persuasive strategies and themes for researching and writing professional proposals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	444	Manual and Instructional Writing	Design and development of a user manual, writing instructions, improving graphics and page design, and usability testing.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	445	Computer Documentation	Introduces writing documentation for the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	446	Technical and Scientific Reports	Introduces strategies, formats, and techniques of presenting information to technical and scientific audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	451	Copyright and Intellectual Property in the Electronic Age	Explores issues related to copyright and intellectual property laws, with emphasis on electronic environment. Credit is allowed for only TWC 451 or 551.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		

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TWC	452	Information in the Digital Age	Explores the creation, organization, dissemination, and use of information; the impact of technologies; and surrounding economic, legal, and social issues.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	453	Information and Communications Technology in American History	Explores the historical development of information and related technologies in the United States from colonial times to the present. Credit is allowed for only TWC 453 or 553.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	454	Information Technology and Culture	Explores the historical impact and intersection of communications technology and culture in America. Credit is allowed for only TWC 454 or 554.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	C	
TWC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	490	Capstone	Development of a professional portfolio, creation of a culminating document, and synthesis of undergraduate experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	492	Honors Directed Study		N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-6		
TWC	493	Honors Thesis		N	LEC	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
TWC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TWC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
TWC	501	Principles of Technical Communication	Basic information design principles to produce effective written, oral, and electronic technical communication. Understanding of rhetorical and audience analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 501 who have credit in TWC 401
TWC	503	Writing for Professional Publication	Analyzes the market and examines the publication process, including the roles of the author, editor, and reviewer.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	511	Principles of Visual Communication	Basic principles of visual communication in print and electronic media. Understanding graphic and document design, including typography and color.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students who have credit for TWC 411, may not enroll in TWC 511
TWC	521	Principles of Writing with Technology	Understanding historical and social impact of technology on writing, with emphasis on multimedia design, computer-mediated communication, and hypertext.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	531	Principles of Technical Editing	Basic principles of technical editing for print and electronic media, including copyediting, reviews, standards, style, and project management.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	543	Proposal Writing	Develops persuasive strategies and themes for researching and writing professional proposals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	544	Manual and Instructional Writing	Design and development of a user manual, writing instructions, improving graphics and page design, and usability testing.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	545	Computer Documentation	Introduces writing documentation for the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	546	Technical and Scientific Reports	Introduces strategies, formats, and techniques of presenting information to technical and scientific audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	547	Business Reports	Introduces strategies, formats, and techniques of presenting information to business and other workplace audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	551	Copyright and Intellectual Property in the Electronic Age	Explores issues related to copyright and intellectual property laws; emphasizes electronic environment. Credit is allowed for only TWC 551 or 451.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	552	Information in the Digital Age	Explores the creation, organization, dissemination, and use of information; the impact of technologies; and surrounding economic, legal, and social issues. Credit is allowed for only TWC 552 or 452.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	553	Information and Communications Technology in American History	Explores the historical development of information and related technologies in the United States from colonial times to the present. Credit is allowed for only TWC 553 or 453.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	554	Information Technology and Culture	Explores the historical impact and intersection of communications technology and culture in America. Credit is allowed for only TWC 554 or 454.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		

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UET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
UET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	305	Introduction to Microelectronics	Quantifies the role of microelectronics technology and its associated skills as drivers for electronics systems development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisite: Academic Level greater than or equal to Junior
UET	331	Electronic Materials	Physical, chemical, electromagnetic, and mechanical properties of electronic materials. Solid-state device characteristics and their material properties.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in Tech Sci/Engr: BS or BSE; 2.5 GPA or better; D or better in CHM113, EET208, PHY112, PHY114 or be currently enrolled in OR Tech Sci/Engr: Appl Bio Sys,BAS,MS,MS Tech, PhD
UET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	411	Layer Deposition Technology	Fundamentals, applications, and vacuum technology of layer deposition processes used in IC fabrication. Credit is allowed for only UET 411 or 511.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Tech Sci/Engr :MS or MS Tech, BAS, BS, BSE AND have a C or greater in UET331 AND UET417 or be currently enrolled in or Co-enrolledUET331 and UET417.
UET	415	Electronic Manufacturing Engineering Principles	Electronic equipment design and fabrication principles and practice. Completion of electronics hardware design project and report.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2-3		Prerequisites:Must be in Techn Sci/Engr MS or MS Tech or BAS or BS or BSE AND have greater than or equal to 2.25 Univ Cum GPA OR be in a Techn Sci/Engr: MS or MSE or MS Tech or PhD
UET	416	Dopant Control Technology	Design and practical realization of charge distribution in microelectronic devices, including ion implantation and diffusion processes. Credit is allowed for only UET 416 or 516.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in Techn Sci/Engr: Non Degree,BAS,BS,BSE AND have greater than or equal to a 2.25 Univ Cum GPA And have a C or greater in UET331 and UET417 or Corequisite:UET417 OR you must be in a Techn Sci/Engr: MS or MSE or MS Tech or PhD
UET	417	Semiconductor Technology Practice	Lab-based design and execution of safe and effective semiconductor fabrication operations.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	418	Systems on Silicon	Factors that drive integration on silicon, including logic, memory, and interfaces. Economics of system-level solutions. Credit is allowed for only UET 418 or 518.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in Tech Sci/Engr:Non Degree,BAS,BS,BSE AND have greater than or equal to a 2.25 Univ Cum GPA OR be in a Tech Sci/Engr: MS or MSE or MS Tech or PhD
UET	421	IC Device Characterization	Design and operation of the major classes of semiconductor devices. Characterization by parameters and their extraction. Future technology trends.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Have received a C or greater in UET331 or be currently enrolled AND be a Tech Sci: BAS or BS or MS or MS Tech or Grad Non Degree
UET	424	Pattern Transfer Technology	Maskmaking, lithography, and etch processes for integrated circuit fabrication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in a Tech Sci Graduate Plan:MS or MS Tech AND have a C or greater in UET417, OR Corequisite:UET417; you may not enroll in UET 424 if you have credit in UET 524
UET	426	Software Tools for the Semiconductor Industry	Introduces software tools commonly used in the semiconductor industry, such as SUPREM IV, PSPICE, VIEWLOGIC, and ICED.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	432	Semiconductor Packaging and Heat Transfer	Packaging theory and techniques; hermetic and plastic assembly; thermal management; electrical characteristics and reliability.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in a Tech Sci/Engr: Non-Degree or BAS or BS or BSE AND you must have greater than or equal to 2.25 Univ Cum GPA OR you must be in Tech Sci/Engr Graduate: MS or MSE or MS Tech or PhD: credit allowed for either UET 432 or UET 532 only
UET	437	Process Control and Validation	Statistical process control and its application to IC fabrication. Design, control, and performance validation techniques throughout the manufacturing process. Lecture with Web support. Prerequisite: 300-level statistics course.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in Tech Sci/EngrGraduate Plan:MS or MSE or MS Tech or PhD AND have a C or greater in UET417 OR Co-enrolled: UET417
UET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
UET	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-6		
UET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
UET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites:You must be in a Tech Sci/Engr: Non-Degree or BAS or BS or BSE AND you must have greater than or equal to 2.25 Univ Cum GPA OR you must be in Tech Sci/EngrGraduate: MS or MSE or MS Tech or PhD
UET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Prerequisites:Must be in a Tech Sci/Engr: Non-Degree or BAS or BS or BSE AND have greater than or equal to 2.25 Univ Cum GPA OR be ech Sci/EngrGraduate: MS or MSE or MS Tech or PhD
UET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		

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UET	511	Layer Deposition Technology	Fundamentals, applications, and vacuum technology of layer deposition processes used in IC fabrication. Credit is allowed for only UET 511 or 411. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	516	Dopant Control Technology	Design and practical realization of charge distribution in microelectronic devices, including ion implantation and diffusion processes. Credit is allowed for only UET 516 or 416.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	518	Systems on Silicon	Factors that drive integration on silicon, including logic, memory, and interfaces. Economics of system-level solutions. Credit is allowed for only UET 518 or 418.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	521	Device Physics	Band structure of solids, electron hole-pairs, mobility, lifetime, fermilevel, pn junctions, diodes, and bipolar and MOS transistors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Grad or Non Degree Grad student; 3.0 GPA or better, OR Senior level; Tech Sci student; 3.0 GPA or better
UET	524	Pattern Transfer Technology	Maskmaking, lithography, and etch processes for integrated circuit fabrication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for UET 424, may not enroll in UET 524
UET	532	IC Packaging	IC packaging theory and techniques; assembly techniques, material issues; thermal management; electrical performance and reliability.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad and have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better. You may not enroll in UET 532 if you have credit for UET 432
UET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UNI	100	Academic Success at the University	Orientation to campus resources, study skills, and other academic and social issues for college students. Introduces an understanding of human diversity, values, and perspectives as they relate to student success.	N	LEC	N	OPT	University College	Dean, University College	3.		
UNI	101	Student Success Seminar	Understanding human diversity, perspectives, and values as they relate to student success. Orientation to ASU resources, study skills, and academic and social issues for students. Seminar, discussion.	N	SEM	N	OPT	University College	Dean, University College	1.		
UNI	110	Academic Success Seminar	Designed to help ASU students make a successful transition to the university, engage in university life and in their own education, develop the skills needed for academic success, and connect to the university resources that will support their academic and personal development.	N	LEC	N	OPT	University College	Dean, University College	1-3		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		

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UNI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	University College	Dean, University College	1-12		
UNI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	University College	Dean, University College	1-12		
UNI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	University Academic Success Programs	1-4		
UNI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	University Academic Success Programs	1-4		
URB	100	Introduction to Urban and Metropolitan Studies	Introduction to study of urban governance. Explores city, civil society, and urban form from different cultures and historical periods. Credit is allowed for only URB 100 or 300.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	C	
URB	105	Introduction to Urban Governance	Introduces American city growth from past to present. Examines the background of major urban issues emphasizing governance, management, and policy. Credit is allowed for only URB 105 or 305.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	220	Introduction to Urban America	Investigates traditional and evolving forms of civic engagement and management. Examines leadership and organizational models to urban development and decision making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	240	Urban Policy	Examines major theories about the purposes and processes of urban policy formulation, adoption, and implementation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	C	
URB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	300	Urban and Metropolitan Studies	Examines the city using a multidisciplinary approach drawing from different historical, cultural, social, philosophical, and economic issues and concepts. Credit is allowed for only URB 300 or 100.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	301	Urban Research	Introduces the philosophy, scope, and methods of urban affairs research. Includes an overview of quantitative and qualitative methods and research design.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	302	Urban Theory	Examines the sociological, economic, and political theoretical positions underlying the development and evolution of metropolitan areas.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	305	Urban Governance	Examines major shifts and trends in urban America. Concentrates on the changing approaches to governance and policies of urban areas. Credit is allowed for only URB 305 or 105.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	400	Senior Professional Seminar	Demonstrates completion of the urban studies program by synthesizing and applying core knowledge, skills, and abilities to significant urban issues.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	410	Urban Leadership and Collaborative Skills	Emphasizes the changing roles of leadership and collaboration in a complex, diverse, and dynamic urban environment.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
URB	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Public Affairs	1-6	L	Pre-requisites: Must be an Honors student
URB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
USL	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in multiple discipline areas. Requires weekly reflective reading and writing. Fee.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
USL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
USL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
VTN	101	Elementary Vietnamese I	Basic skills in modern conversational Vietnamese and development of basic reading and writing skills, with special emphasis on tones.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
VTN	102	Elementary Vietnamese II	Basic skills in modern conversational Vietnamese and development of basic reading and writing skills, with special emphasis on tones.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:VTN 101 with C or better
VTN	201	Intermediate Vietnamese I	Improves speaking, listening, reading, and writing competence through dialogues, reading passages, pattern drill, and grammar and communicative exercises.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:VTN 102 with a grade of C or better or currently enrolled

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
VTN	202	Intermediate Vietnamese II	Improves speaking, listening, reading, and writing competence through dialogues, reading passages, pattern drill, and grammar and communicative exercises.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:VTN 201 with a grade of C or better or currently enrolled
VTN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	321	Advanced Vietnamese and Literature I	Readings from modern, contemporary, and folk literatures as well as current periodicals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:VTN 202 with a grade of D or better, or currently enrolled
VTN	322	Advanced Vietnamese and Literature II	Continuation of VTN 321. Readings from modern, contemporary, and folk literatures as well as current periodicals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:VTN 322 with a grade of D or better, or currently enrolled
VTN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-7
WAC	107	Introduction to Academic Writing for International Students	For students from non-English-speaking countries. Combines classroom and supplemental instruction with intensive reading, writing, and discussion.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: TOEFL score of 0-559
WAC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-7
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-7
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-7
WAC	107	Introduction to Academic Writing for International Students	For students from non-English-speaking countries. Combines classroom and supplemental instruction with intensive reading, writing, and discussion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: TOEFL score of 0-559
WPC	101	Student Success in Business	Introduces students to resources that help them to succeed in the W. P. Carey School of Business.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		
WPC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WPC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WPC	301	Business Forum	Provides professional program business students with information on careers, interviewing, job hunting, and resumé skills. Must be taken in the first semester of the professional program for business students.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		Pre-requisites: Must be a W.P. Carey degree program business student
WPC	302	Honors Professional Development	Provides a foundation for developing key professional knowledge and skills required for future business and personal success. Strategic thinking and design, scenario development, verbal and written persuasion, direct marketing techniques, systems thinking, relationship development, research design, and decision-making models.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		
WPC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		Pre-requisites: Must have a minimum GPA of 2.00; Must have a minimum total earned hours of 56
WPC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-12		
WPC	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Prebusiness Office	1-6		
WPC	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Prebusiness Office	1-6	L	Pre-requisites: Must be an Honors student
WPC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		Pre-requisites: Must be W. P. Carey BS or BA degree program student; junior or senior standing.
WPC	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-6		
WPC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Prebusiness Office	1-3		

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WPC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-12		
WPC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WSH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	330	Women, Film, and Culture	Explores how narrative films portray women, romantic relationships, and the possibilities for social change in gender relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WSH	370	Sex and the City: Women, Sexuality, and Popular Culture	Examines the changing construction of young, sexually autonomous women in the city by popular media in post-WWII America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: WST 100 or WST 300 with D or better
WSH	385	American Indian Women	Investigate the economic, political and ideological factors contributing to American Indian women's intellectual and creative activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites:WST 100 or WST 300 with a grade of D or currently enrolled
WSH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	413	Lesbian, Gay, and Gender Studies	Explores lesbian, gay, bisexual, transgender, and queer experiences in the U.S. and globally, from sociological, psychological, historical, and literary perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	420	Women of Color in Film	Analyzes the history and representations of women of color in film and film industry through the intersections of gender, race, sexuality, class, and nationalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WSH	421	Girlhood and Adolescence	Examines the changing construction of girlhood and female adolescence through history, memoir, fiction, myth, music, and media.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WSH	464	Voices and Visions	Explores the contributions of visionary women in the humanities; topics vary from semester to semester. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	470	Women and Popular Culture	Interdisciplinary examination of how gender is constructed in popular cultural forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
WSH	470	Women and Popular Culture	Interdisciplinary examination of how gender is constructed in popular cultural forms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
WST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	300	Women in Contemporary Society	Intensive interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	313	Women and Sexuality	Explores feminist theories about women's sexuality and the relationship of these theories and related research to women's experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	360	Women as Healers	Examines the role of women as caregivers, healers, physicians, midwives, and nurses in different cultures and historical periods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G	
WST	372	Women in Judaism	Studies the legal, social, and cultural status of Jewish women in various historical and contemporary societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	373	Latina/Chicana Issues	Examines the roles Mexican American, Chicana, and/or Latina immigrant women play historically, socially, and politically in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	375	Women and Social Change	Combines research and theory on a contemporary social problem with a community action experience focusing on women's social change initiatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
WST	377	History of American Feminist Thought	Explores the development of American feminist theory from its roots to 1975.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	378	Global Feminist Theory	Global feminist theories and exploration of the intersections of gender, race, ethnicity, class, and nation through critical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & C & G	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	380	Gender, Race, and Class	Explores cultural diversity, class, and gender issues in American social life.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: WST 100 or WST 300 with D or better
WST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	410	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	
WST	440	Politics of Women's Health	Interdisciplinary exploration of how women's social, cultural, and economic position affect their health and health care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: WST 100 or WST 300 with D or better or currently enrolled
WST	457	Gender, Culture, and Development	Economic, cultural, and sociopolitical contexts for understanding women's roles related to health, family, work, education, and politics in developing countries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	Pre-requisites: May not sign up for WST 457 if received credit for SGS 454
WST	460	Women and the Body	Interdisciplinary look at how representations of woman as body permeate culture and affect a woman's sense of self.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	477	Women and Violence	Global examination of forms of violence against women at the individual, institutional, and cultural levels, and efforts to control it.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
WST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
WST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-7	L	Pre-requisites: WST 100 or 300 with a C or better or currently enrolled
WST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Liberal Arts and Sciences	School of Social Transformation	1-3		
WST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	601	Critical Concepts of Gender	Key concepts, theoretical frameworks, disciplinary and interdisciplinary approaches, and the critical debates that have shaped the field of gender studies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	602	Mapping the Intersections of Gender	Theoretical concepts, metaphors, and frameworks employed by feminist scholars to understand the way gender articulates with other categories of difference.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	603	Engendering Methodology	Focuses on the methodologies, epistemologies, and ethical dilemmas of researching gender.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	640	Visual and Narrative Culture	Feminist and semiotic theory to examine gender representations in visual and narrative culture including film, dramatic literature, fiction, and autobiography.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	701	Research Design and Proposal Development in Gender Studies	Prepares students for careers in gender studies by developing skills in research design, proposal writing, and identifying funding outlets.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
WST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
WST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	276	Feminist Foundations: Going to the Sources	Historical survey of sources influential in the development of the feminist movement in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
WST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	300-W	Women in Contemporary Society	Interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	320	Women in Popular Culture	Analyzes from a historical perspective the images of women in magazines, films, advertising, toys, and other popular culture forms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	333	Critical Perspectives on Sexuality	Examines critical theories of sexuality, including history, commerce, pleasure, LGBT issues, identity, medicalization of sexuality, disorders, sex crime, and pornography.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	350	Race, Class, and Gender	Explores the intersections of race, class, and gender in the U.S. and world, as forces of social control, oppression, and liberation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	370	Chronicling Women's Lives	Explores the lives of a selected group of American women as a point of departure for the chronicling of contemporary women's lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	376	Feminist Theory	Explores feminist theories and the intersection of gender, race, ethnicity, and class through critical analyses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H & C	Pre-requisites: WST 100 or WST 300 with D or better
WST	385	Psychology of Gender	Examines, from a psychological perspective, the similarities and differences in beliefs, attitudes, and behaviors of women and men.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
WST	390	Women and World Religions	Comparative examination of vital issues about women and religions in different places of the world and different historical periods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	430	Gender on the Borderlands	Examines women's status in the U.S.-Mexico borderlands through key issues such as migration, labor, violence, education, and culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	431	Women and Film	Comparative international course explores ways feminist directors have broken the Hollywood mold in films focusing on women.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	C	
WST	444	Women and Health	Explores women's health from a feminist perspective, including critical analyses of women's bodies in medical, feminist, and popular literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
WST	457-W	Women, Cultures, and Societies	Examines issues such as poverty, dependency, interdependency, race, class, and gender in different societies of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	467	Ethnic Women Writers	Concentrates on selected women writers of the U.S. who are Native American, African American, Latina, and Asian-American.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	473	Latina/Chicana Representation	Examines from an interdisciplinary perspective contemporary issues experienced by Chicana/Latina women in the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	475	Women of the Diaspora across Cultures	Examines the socioeconomic condition, political formation, and identities of contemporary indigenous, ethnic minority, immigrant, and migrant women globally.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
WST	480	Gender Issues in Education	Examines the relationship between gender and educational access and outcomes as a result of public policy in a variety of communities and settings.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	

Subject	Catalog Nbr	Course Title Long	Descrlong	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	483	Women Writers Across Cultures	Comparative approach to contemporary writings by women from around the world.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
WST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	485	Women, Gender, and Leadership	Explores the gendered nature of leadership and studies strategies that enable women to lead successfully in areas such as business, education, and public service.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	487	Gender and International Development	Addresses conceptual, methodological, and theoretical issues concerning gender, development, and internationalism; evaluates theories and models for change.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
WST	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
WST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7	L	Pre-requisites: WST 100 or 300 with a C or better or currently enrolled; ENG 101 or 105 with a C or better or currently enrolled
WST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
WST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	300	Women in Contemporary Society	Intensive interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	375	Women and Social Change	Combines research and theory on a contemporary social problem with a community action experience focusing on women's social change initiatives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
XBA	101	Campus Match: Business	This prefix is used only to schedule clusters of classes for various university programs.	N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	0.		
XEE	101	Campus Match:Extended Ed	This prefix is used only to schedule clusters of classes for various university programs.	N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
YDL	201	Introduction to Youth Studies	Introduces a perspective on the everyday lives of youth in regard to experience, sex, age, relational context, and identity.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	210	Urban Youth and Youth Studies	Explores the lives of young people from 12 to 22 years old in urban neighborhoods, communities, and cities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	301	Adolescent and Youth Development Leadership	Applies theory and research about youth, including how findings can be used and how theories facilitate behavior understanding.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	450	Youth Policy	Examines various federal and state policies designed for youth, how and why policies for youth are constructed.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Fall 2009

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AAD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AAD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AAD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AAD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AAD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
AAD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AAD	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design MS student
AAD	551	Architectural Management I	Design delivery, coordination of construction documents, cost estimating, bidding and negotiations, construction observation, and postconstruction services.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Bldg Des(Facilities Dev/Mgt) Graduate Architecture student
AAD	552	Architectural Management II	Organizational, human performance, and market influences on architecture firms and projects. Readings, case studies, and analysis of managerial problems and solutions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Building Design MS, Master of Architecture, Master of Urban Design or Master of Landscape Architecture student
AAD	555	Architect as Developer	Development building, real estate, construction funding, land acquisition, and the sources for capital.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AAD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ABS	130	Introduction to Environmental Science	Introduces soil resources, their physical and chemical properties, classification, energy dynamics, and the role they play in environmental quality.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
ABS	207	Applied Plant Taxonomy	Introduces identification of vascular plants emphasizing seed plants. Surveys seed plant families. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	225	Soils	Fundamental properties of soils and their relations to plant growth, nutrition of man and animals, and environmental quality. Both ABS 225 and ABS 226 must be taken to secure General Studies SQ credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
ABS	226	Soils Laboratory	Selected exercises to broaden the background and understanding of basic soil principles. Both ABS 225 and ABS 226 must be taken to secure General Studies SQ credit.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
ABS	260	Fundamentals of Urban Horticulture	Principles and practices of horticulture, emphasizing development, growth, and propagation of horticultural plants and environmental factors that affect these processes. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
ABS	270	Sustainable Biological Systems	Ecological foundations of sustainable biological systems, anthropogenic impacts on ecosystem structure and function, and ecological risk assessment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	274	Introduction to Wildlife Management	Managing wildlife in the Southwest, including life histories of small game, fur bearers, big game, and selected nongame specials. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	301	Technology and Biology	Demonstrations of a broad range of innovative technologies in molecular biology, cellular and organismal biology, horticulture, and wildlife and restoration ecology. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	302	Ethical and Policy Issues in Biology	Policy environment and ethics in the practice of biology. Covers ethical reasoning, policy formulation, and regulatory agencies with examples from biotechnology and the environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	311	Applied Cellular Biology	Overview of the biology of the cell; emphasizes structure and function of biomolecules within the cell.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	312	Structure and Function	Surveys structural and functional attributes of plant and animals of particular importance in the applied biological sciences. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	350	Applied Statistics	Statistical methods with applications in the biological sciences and natural resource management. Uses computers and the Internet.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
ABS	355	Vertebrate Zoology	Classification, anatomy, and physiology of the vertebrates.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	360	Southwest Home Gardening	Multimedia course for nonmajors surveying contemporary topics in Southwest home horticulture, including landscaping, flower and vegetable gardening, citriculture, interiorscaping, and others.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	362	Landscape Plants and Design	Identification, design, and use of plants in urban landscapes. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	363	Landscape and Turf Irrigation	Design, management, and maintenance of landscape and turf irrigation systems. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	364	Urban Forestry	Care, maintenance, and valuation of the urban forest, including public and private landscape codes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	367	Urban Parks	Overview of the management and maintenance of private and public parks, urban greenspaces, and recreational areas. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	368	Plant Propagation	Theory and application of sexual and asexual propagation techniques. Considers plant materials used both for urban horticulture and ecological restoration applications. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	370	Ecology	Interactions between organisms and their environments; structure and dynamics of populations, communities, ecosystems, and landscapes, with emphasis on vegetation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	372	Ecology: Ecosystems and Landscapes	Structure and function of ecosystems, interactions of pattern and process in landscapes	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	375	Conservation Biology	Principles of conservation biology, management of threatened species and ecosystems, biodiversity patterns; emphasizes issues in the Southwest. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		

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ABS	376	Wildlife Ecology	Examines ecological principles underlying wildlife population dynamics with emphasis on physiology, genetics, nutrition, and habitat factors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	378	Wildlife Nutrition	Principles of nutrient metabolism in wildlife species; emphasizes understanding the interaction of wildlife with their environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	380	Restoration and Wildlife Plants	Important wildland plants, including invasive and endangered species, wildlife food species, and species used for ecosystem restoration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	381	Natural Resources Policy	Policies and regulations affecting management of natural resources, with emphases on wildlife and ecological restoration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	401	Intermediate Statistics	Analysis of variance, multiple comparisons, multiple regression.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	402	Vegetation and Wildlife Measurement	Vegetation inventory, sampling, monitoring, and evaluation. Methods of estimating wildlife populations, activity, and home ranges.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	425	Soil Classification and Management	Principles of soil genesis, morphology, and classification. Presents management and conservation practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	430	Watershed Management	Hydrologic, physical, biological, and ecological principles applied to watershed management. Impact of ecosystem manipulations on water yield and quality.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	433	Riparian and Wetland Ecology	Functions and components of riparian and wetland ecosystems and the management of these systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	434	Soil Ecology	Soils viewed in an ecosystem context, soil-plant relationships, nutrient budgets, and abiotic factors that influence soil processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	435	Applied Systems Ecology	Simulation modeling as a tool to study ecological processes and human impact on ecosystems and organisms.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	440	Ecological Restoration Techniques	Techniques for ecological restoration, riparian and wetland restoration, and monitoring restoration success.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	441	Ecological Restoration Practicum	Field experience in the evaluation and monitoring of implemented ecological restoration projects. fee	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ABS	460	Organic Gardening	Applies principles and practices of organic gardening in the low desert, including environmental impacts of modern food production. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	462	Greenhouse/Nursery Management	Greenhouse structures, environment, and nursery operations. Includes irrigation, nutrition, and other principles relative to production of nursery crops. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	463	Golf and Sports Turf Management	Selection, establishment, and maintenance of turf grasses bred specifically for golf and sports facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	465	Senior Enterprise Project	Selection and completion of an urban horticulture project with faculty advisor approval related to the field of study.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	470	Mammalogy	Classification and biology of mammals, emphasizes North America.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	471	Ornithology	Classification and biology of birds, emphasizing North America. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	475	Habitat Management for Small Wildlife	Habitat management considerations and practices for small game and nongame wildlife species in North America. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	476	Big Game Habitat Management	Habitat management considerations and practices for big game wildlife species in North America. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	480	Ecosystem Management and Planning	Principles of ecosystem management, with emphasis on economic and policy constraints on the planning process. Risk assessment and management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	L	
ABS	481	Riparian and Wetland Restoration	Principles and problems in the restoration of degraded riparian and wetland ecosystems. Construction of wetlands.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	482	Ecology and Planning for Restoration	Ecological principles and resource planning processes applied to the restoration of degraded landscapes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	483	Restoration Planning Practicum	Field experience in ecological restoration techniques, selection of mitigation techniques, and implementation planning. Fee.	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	485	GIS in Natural Resources	Principles of Geographic Information Systems (GIS) utilized in natural resource management. Use of computers for spatial analysis of natural resources.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	486	Introduction to Remote Sensing	Remote sensing technologies in natural resource management using computerized data from aerial photography and satellite imagery. Not for graduate credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		

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ABS	489	Undergraduate Research	Undergraduate research under the supervision of an applied biological sciences faculty member.	N	RSC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ABS	490	Applied Biological Sciences Seminar	Current literature and significant developments related to applications of the biological sciences. May be repeated for credit.	N	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ABS	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-6		
ABS	493	Honors Thesis		N	THE	N	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-6	L	Pre-requisites: Must be an Honors student
ABS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-7		
ABS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ABS	540	Plant Responses to Environmental Stresses	Reaction of plants to environmental stresses: aerial pollutants, fire, herbivores, floods, mechanical treatments, pesticides, and soil amendments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	550	Vegetation Dynamics	Dynamics of vegetation linking physiological, population, and community ecology. Collection and analysis of vegetation data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	551	Advanced Environmental Analysis	Advanced statistical procedures and experimental design for the biological sciences. Techniques for analyzing data that do not meet statistical assumptions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	553	Riparian Ecology	Review of recent literature, developments, and methods related to riparian ecology. Applies soil and landscape ecology to riparian systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	560	Dynamic Spatial Modeling	Simulation modeling of landscapes, animal populations, and ecological processes in space and time. May use modeling tools on computer clusters.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	570	Advanced Animal Nutrition	Metabolic and physiological interactions of nutrients in wild and domesticated animals consuming natural feeds.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	586	Remote Sensing in Environmental Resources	Principles and application of remote sensing technologies in natural resource management using computerized data from aerial photography and satellite imagery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ACC	231	Uses of Accounting Information I	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Not open to Pre-BIS or Interdisciplinary Studies students; CIS 105, 220 or 236 with C or better
ACC	241	Uses of Accounting Information II	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: ACC 231, ACC 261 or ACC 303 with C or better

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ACC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-3		
ACC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	231	Uses of Accounting Information I	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Not open to Pre-BIS or Interdisciplinary Studies students; CIS 105, 220 or 236 with C or better
ACC	241	Uses of Accounting Information II	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: ACC 231, ACC 261 or ACC 303 with C or better
ACC	261	Honors Fundamentals of Financial Accounting	Covers basic financial accounting concepts and applications. Develops an understanding of the environment in which financial reporting choices are made.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Must be an Honors student; Must have completed CIS 105 or CIS 220 with a grade of C or greater or be currently enrolled
ACC	271	Honors Fundamentals of Managerial Accounting	Covers basic managerial accounting concepts and applications.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Must be an Honors student; Must have completed ACC 231, ACC 261 or ACC 303 with a grade of C or greater
ACC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	315	Financial Accounting and Reporting	Accounting theory and practice related to uses of financial statements by external decision makers.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey BS or BA student (not open to Accountancy students); or non-bus student with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and 56 earned hrs; ACC 231 and ACC 241 with C or better
ACC	316	Mgmt Uses of Accounting	Uses of accounting information for managerial decision making, budgeting, and control.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey BS or BA student (not open to Accountancy students); or non-bus student with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and 56 earned hrs; ACC 241 with C or better
ACC	326	External Financial Reporting I	Theory, U.S. standards, and practice applicable to financial statements, revenue recognition, and assets.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student OR be pursuing an Accountancy or Prof Accountancy certificate
ACC	327	External Financial Reporting II	Theory, U.S. standards, and practice applicable to equities, cash flow statement, earnings per share, leases, pensions, and other essential topics.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: School of Global Management and Leadership Accountancy student; ACC 326 with C or better
ACC	336	Cost Management and Control	Concepts and principles for product costing, planning and control, and internal decision making.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate
ACC	340	External Reporting I	Financial accounting theory and practice related to external reporting.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy or Finance BS student; ACC 241, and ECN 221 with a grade of C or better. Pre- or co-requisite: FIN 300 or FIN 302 or FIN 303.
ACC	346	Information Systems Management	Information requirements and transaction processing for integrated accounting systems emphasizing database systems analysis and design, controls, and computer processing.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS or a Global Management student with Professional status
ACC	350	Internal Reporting	Internal reporting systems for planning, control, and decision making.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Finance BS student; ACC 241, and ECN 221 with a grade of C or better.
ACC	356	Income Tax Accounting	Public policy concepts and rules of federal income tax for all taxpayers. Individual tax returns and use of tax software.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate AND ACC 326 with C or better
ACC	361	Accounting Technology	Use and understanding of a computerized accounting package and other software for accounting applications.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate AND ACC 326 and 336 and 346 with C or better
ACC	382	Accounting and Financial Analysis	Introduces nonbusiness majors to financial accounting concepts related to operating, financing, investing, and ethical decisions.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Non-Accountancy student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
ACC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	410	Contemporary Financial Reporting	Topics include financial statements, roles and effects of accounting information in society, policy setting, managers' choice of accounting techniques. Cannot be used for major credit in Accountancy.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Business/Financial Mgt BS student AND have completed with a C or better FIN 300 or 301 or be currently enrolled or not be pursuing an Accountancy or Professional Accountancy certificate
ACC	426	Advanced Reporting: Consolidation, International, and Not-for-Profit Topics	Consolidated financial statements, not-for-profit accounting, and international accounting standards and topics including foreign currency transactions and translation.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326.
ACC	430	Taxes and Business Decisions	Federal income taxation of sole proprietors, partnerships, corporations, fiduciaries, and individuals with an emphasis on tax consequences of business and investment decisions.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 340 and LES 305 with C or better
ACC	436	Advanced Topics in Cost Management	Issues in contemporary manufacturing environments. Topics include cost estimation, activity-based management, just-in-time inventories, budgeting, and variances.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326, 331 or 336 or be currently enrolled
ACC	440	External Reporting II	Continuation of ACC 340 with emphasis on the recognition, research, and resolution of financial reporting issues.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Finance BS student; ACC 340 with C or better
ACC	444	Enterprise Process Analysis and Design	Analysis and design of efficient and effective business processes. Emphasizes taking advantage of new information technologies to improve managerial decision making. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Computer Info Systems BS student; ACC 241 and ECN 221 with a grade of C or better.

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ACC	450	Principles of Auditing	Standards and procedures in auditing. Planning, evidence gathering and accumulation, and reporting. Ethical and legal considerations. fee	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 440 and 444 with C or better
ACC	456	Advanced Taxation	Advanced problems in business and fiduciary income tax. Formation, operation, and liquidation of corporation and partnerships. Use of research software.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must have completed ACC 351 or 356 AND ACC 326 with a grade of C or better
ACC	476	External Auditing	Theory and standards underlying the attestation process. Topics include evidence gathering, analysis, reporting, and development of professional judgement skills.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student OR Accountancy or Professional Accountancy Certificate; ACC 322 or 327 with C or better; ACC 346 or 347 with C or better
ACC	477	Internal Auditing	Contemporary issues and practices of internal auditing. Standards and process of management/operation audits.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326 or ACC 346 or 347.
ACC	478	Governmental and Not-for-Profit Accounting	Accounting and reporting systems for governmental entities, healthcare organizations, colleges and universities, and other nonprofit organizations.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 321 or 326 or be currently enrolled
ACC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	School of Accountancy	1-6		
ACC	493	Honors Thesis		N	THE	N	Z1	W.P. Carey School of Business	School of Accountancy	1-6	L	Pre-requisites: Must be an Honors student
ACC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Accountancy BS student
ACC	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-6		
ACC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-7		Pre-requisite: Accountancy BS, Finance BS or Economics BS student
ACC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-3		Pre-requisite: Accountancy BS student
ACC	502	Financial Accounting	Contemporary financial accounting and reporting systems; emphasizes the interpretation and evaluation of a company's external financial reports.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	2-4		Pre-requisite: MBA student
ACC	503	Managerial Accounting	Managerial accounting concepts and procedures for internal reporting applied to the decision making activities of the professional managers.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	2-4		Pre-requisite: MBA student
ACC	511	Taxes and Business Strategy	Economic implications of selected management decisions involving application of federal income tax laws. Recognition of tax hazards and tax savings.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	512	Advanced Auditing	Builds on the skills obtained in the beginning auditing (assurance) course and focuses on audit planning, risk assessment, evidence, and reporting procedures and fraud.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Master of Accounting student
ACC	513	Advanced Financial Accounting	Focuses on advanced financial accounting topics along with their application in the financial reporting process.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Specific Business Graduate majors
ACC	525	Accounting Theory	Examines GAAP and the broader implications of financial accounting in a market economy while balancing the varied interests of diverse stakeholders.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: must be in the Accountancy & Appl Leadership graduate plan.
ACC	529	Fraud Accounting	Surveys a variety of topics, including types of fraud, the prevention and detection of fraud, and fraud investigations.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	536	Advanced Topics in Cost Management	Emphasizes cost management topics for manufacturing, merchandising, and service industries while adopting the perspective of the user of cost management information.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	561	Auditing Through the Computer	Presents general IT audit concepts, terms, standards, practices, and current tools and techniques.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	567	Financial Models in Accounting Systems	Development and application of financial models by accountants. Analysis of decision support systems as financial modeling environments.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisites: Specific Business Graduate students only
ACC	571	Taxation of Corporations and Shareholders	Tax aspects of the formation, operation, reorganization, and liquidation of corporations and the impact on shareholders.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	573	Taxation of Pass-Through Entities	Tax aspects of the definition, formation, operation, liquidation, and termination of a partnership. Emphasizes tax planning.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	575	Family Tax Planning and Wealth Transfer Taxation	Tax treatment of wealth transfers at death and during lifetime, with emphasis on tax planning.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	577	Internal Auditing	Examines the vocabulary, concepts, logic, principles, processes, and techniques of auditing.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: must be in the Accountancy & Appl Leadership graduate plan.
ACC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	582	Information Security of Interorganizational Systems	Function and responsibility of the information security officer. Advanced topics in security methods and technology.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ACC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	585	Performance Measurement and Advanced Managerial Accounting	Applies quantitative techniques to accounting problems.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Business Graduate student
ACC	586	Shareholder Value Creation and Financial Statement Analysis	Develops skills necessary to exploit financial reporting information in a business environment and appreciation of reporting issues faced by management.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	588	Professional Accounting Research	Applies the technical knowledge of accounting theory and principles developed in other academic courses through the use of "real life" case studies, where such knowledge and professional judgment is applied in resolving advanced accounting problems and issues.	N	RSC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: W. P. Carey Master of Accountancy student
ACC	589	Multijurisdictional Tax II	Addresses the U.S. taxation of U.S. individuals and businesses that do business outside the U.S. as well as the U.S. taxation of foreign persons and tax treaties, allocation of income, foreign tax credits, and transfer pricing. Emphasizes planning related to some of the tax issues that commonly arise in cross-border businesses.	N	RSC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: W. P. Carey Master of Taxation student
ACC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Specific Business Graduate majors
ACC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Specific Business Graduate majors
ACC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	596	Accounting and Leadership Capstone Project	Case-based course dealing with the pragmatics of managing risk in a variety of business settings, including public accounting, consulting, and industry.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		

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ACC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Business Administration (Accountancy) PHD student
ACC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-15		
ACC	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	School of Accountancy	1-15		
ACO	100	Overview of Applied Computing	Internet and HTML, XML, databases, networks and distributed processing, digital media and graphic design. Opportunities, professionalism, and ethics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
ACO	101	Introduction to Computer Science	Concepts of problem solving, structured and object-oriented programming in Java, fundamental algorithms, computer system concepts. Social and ethical responsibilities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: MAT117 or higher with C or better
ACO	102	Principles of Computer Science	Issues and concepts throughout computer science, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Java programming. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: ACO 101 with C or better
ACO	201	Data Structures and Algorithms	Static and dynamic data structures, recursive and iterative sorting and searching, object-oriented design and programming, software design models and implementation/testing strategies, professional responsibilities. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: ACO 102 and MAT 210 with C or better
ACO	210	Introduction to Systems Programming	Introduces operating systems as resource managers, processes, threads, memory allocation, file systems, protection, system calls, application program interfaces. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: ACO 201 with C or better
ACO	220	Introduction to Database Systems	Introduces database management systems concepts. Entity-relationship and relational data models. Database design. Relational algebra, calculus, and SQL query languages. Query optimization. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: ACO 201 and MAT 243 with C or better
ACO	320	Database Systems and Transaction Processing	Relational database normalization theory, stored procedures, triggers, and call-level interface. Data-centric XML. Transaction processing in centralized and distributed databases. Security. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 220 with C or better
ACO	330	Computer Networks	Network architecture and protocols, flow and congestion control, switching and routing, link-layer technologies, medium access control, physical layer basics, quality-of-service, security. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 102 with C or better
ACO	331	Network Design	Fundamental network design principles, internetworking design, network architectures, network management, traffic analysis, security management, case study and hands-on experiments. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 330 with C or better
ACO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	420	Object Databases	Object-oriented conceptual modeling, object-oriented databases, object-relational databases, applications. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	421	Data Mining and Warehousing	Introduces data mining from a database perspective, including classification, clustering, and association rules. Data warehousing methodologies. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	422	XML and Databases	XML data model, schema specification and validation, querying, storage, indexing, and current research topics. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	430	Wireless Networks	Wireless transmission fundamentals, multiple access techniques, error detection and control, cellular concepts and systems, wireless LAN, performance analysis, recent advances. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210, ACO 330 and STP 300 with C or better
ACO	431	Network Security	Digital threats and attacks, cryptography, confidentiality, authentication protocols, message integrity, security in network applications, intrusion detection, malicious software countermeasures, firewalls. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210, ACO 330 and MAT 243 with C or better
ACO	432	Distributed Systems	Distributed system models, distributed programming technique, clock synchronization, distributed snapshot, distributed mutual exclusion, concurrency control, fault tolerance, security, recent advances. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210 and ACO 330 with C or better
ACO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ACO	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6	L	Pre-requisites: Must be an Honors student
ACO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-7		
ACO	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
ADE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ADE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	321	Architectural Studio I	Introductory building design problems. Emphasizes design process, communication methods, aesthetics, construction, and technology. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Architecture student; ALA 240 with C or better
ADE	322	Architectural Studio II	Site and building design problems. Emphasizes programmatic and environmental determinants and building in natural and urban contexts. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must have completed ADE 321 with a grade of C or better or be currently enrolled; must be an Architectural Studies student
ADE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	421	Architectural Studio III	Topical design problems of intermediate complexity, including interdisciplinary problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: ADE 322 with C or better; Co-requisites: APH 421, ATE 451, ARP 484
ADE	422	Architectural Studio IV	Topical design problems of advanced complexity, including interdisciplinary problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be an Architectural Studies student; Must have completed ADE 421 with a grade of C or greater or be currently enrolled; Must have completed ARP 484 with a grade of Y or be currently enrolled
ADE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ADE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ADE	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
ADE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ADE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ADE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Master of Architecture, Master of Landscape Architecture, or Master of Urban Design

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ADE	510	Foundation Architectural Studio	Fundamentals of architectural design, methodology, visualization, and representation. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Master of Architecture student; Co-requisite: ATE 553 and ATE 563
ADE	511	Core Architectural Studio I	Applies design fundamentals in architectural problems, including construction, technology, programmatic and environmental determinants. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Must be Master of Architecture student; must have completed ADE 510 with a grade of C or greater or be currently enrolled
ADE	512	Core Architectural Studio II	Applies architectural design fundamentals to increasingly complex problems, including specific sites and activities. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Must be Master of Architecture student; must have completed ADE 511 with a grade of C or greater or be currently enrolled
ADE	521	Advanced Architectural Studio I	Design problems emphasizing theory, aesthetics, and tectonics as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; Co-requisite: ATE 553 and ATE 563
ADE	522	Advanced Architectural Studio II	Design problems emphasizing the comprehensive integration of building systems and technologies as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; ADE 521 with a C or better; Co-requisites: APH 505 and ATE 556
ADE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	621	Advanced Architectural Studio III	Design problems emphasizing the urban context, planning issues, and urban design theory as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; ADE 522 with a C or better; Co-requisite: APH 515 OR Bldg Des(Energy Perform/Bldgs) MS student
ADE	622	Advanced Architectural Studio IV	Individual, student-initiated project reflecting a culminating synthesis of architectural ideas. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; ADE 522 with a C or better; Co-requisites: APH 515 OR Bldg Des(Energy Perform/Bldgs) MS student
ADE	661	Bioclimatic Design Studio	Sustainable architectural and site synthesis at a variety of scales emphasizing bioclimatic criteria and the use of passive and low-energy systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must either be Master of Architecture or Bldg Des(Energy Perform/Bldgs) MS student
ADE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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ADE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AEC	10-D	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	10-M	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	10-M	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-D	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-M	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-M	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23-D	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23-M	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	30	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31-D	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31-M	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	41-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	41-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	42	Basic 1 Grammar		N	LEC	N	GNA	EE - CONV	Arizona State University	0.		
AEC	42	Basic 1 Grammar		N	LEC	N	GNA	EE - CONV	Arizona State University	0.		
AEC	50-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	50-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	51-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	51-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	60-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	60-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	61-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	61-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate Toefl		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate Toefl		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business Across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business Across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	70-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	70-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	71-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	71-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	72-D	Intermediate 2 Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	72-M	Intermediate 2 Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	75	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	75-D	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	75-M	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76-D	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76-M	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	77	Idioms		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	77-D	Idioms		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	77-M	Idioms		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	80-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	80-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	81-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	81-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82-D	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82-M	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	83	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	83-D	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	83-M	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	84	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	84-D	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	84-M	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	90-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	90-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	91-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	91-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	20	Listening/Speaking		N	LEC	N	GNA	University College	NC American English and Culture Program	3-9		
AEC	20-D	Listening/Speaking		N	LEC	N	AUD	University College	NC American English and Culture Program	0.		
AEC	20-M	Listening/Speaking		N	LEC	N	AUD	University College	NC American English and Culture Program	0.		
AEC	22	Special Programs Training		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	22	Special Programs Training		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	24	Special Programs Field-Based Learning		N	LEC	N	OPT	University College	NC American English and Culture Program	3.		
AEC	24	Special Programs Field-Based Learning		N	LEC	N	OPT	University College	NC American English and Culture Program	3.		
AEC	25	Special Programs English for Specific Purposes		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		

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AEC	25	Special Programs English for Specific Purposes		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	26	Special Programs Project Work		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	26	Special Programs Project Work		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	27	Special Programs Current Issues and Topics		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	27	Special Programs Current Issues and Topics		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	28	Special Programs Survival English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	28	Special Programs Survival English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	32	Evening English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	32	Evening English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	33	Evening English ST: Language Test Preparation		Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	33	Evening English ST: Language Test Preparation		Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	34	Evening English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	34	Evening English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	35	Weekend English ST: Business English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	35	Weekend English ST: Business English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	36	Weekend English ST: Academic English		N	LEC	Y	GNA	University College	NC American English and Culture Program	3-9		
AEC	36	Weekend English ST: Academic English		N	LEC	Y	GNA	University College	NC American English and Culture Program	3-9		
AEC	37	Weekend English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	37	Weekend English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	38	Weekend English ST: Language Test Preparation		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	38	Weekend English ST: Language Test Preparation		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	39	Weekend English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	39	Weekend English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	40	Basic 1 Listening/Speaking	On completing the Basic 1 Listening/Speaking course, a student will be able to (1) follow directions and comprehend main ideas and supporting details of short, simple passages and conversations spoken slowly; and (2) speak informally to express basic needs, habits and descriptions in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	41	Basic 1 Reading/Writing	On completing the Basic 1 Reading/Writing course, a student will be able to (1) recognize main ideas and find supporting details in selected reading passages of a few pages; and (2) produce a guided writing with a personal point of view, demonstrating level-appropriate control of grammar, word forms, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	41	Basic 1 Reading/Writing	On completing the Basic 1 Reading/Writing course, a student will be able to (1) recognize main ideas and find supporting details in selected reading passages of a few pages; and (2) produce a guided writing with a personal point of view, demonstrating level-appropriate control of grammar, word forms, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	42	Basic 1 Grammar	This course covers helping verbs, pronouns, adjectives, count/non-count nouns, and tenses (present, present progressive and simple past).	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	42	Basic 1 Grammar	This course covers helping verbs, pronouns, adjectives, count/non-count nouns, and tenses (present, present progressive and simple past).	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	50	Basic 2 Listening/Speaking	On completing the Basic 2 Listening/Speaking course, a student will be able to follow instructions, directions, and comprehend the main ideas and supporting details of 1-3 minute announcements and conversations with controlled speech and delivery; and (2) speak informally in basic social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	50	Basic 2 Listening/Speaking	On completing the Basic 2 Listening/Speaking course, a student will be able to follow instructions, directions, and comprehend the main ideas and supporting details of 1-3 minute announcements and conversations with controlled speech and delivery; and (2) speak informally in basic social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	51	Basic 2 Reading/Writing	On completing the Basic 2 Reading/Writing course, a student will be able to (1) recognize main ideas, find supporting details, and recognize the organizational pattern in short and page-length reading passages; and (2) produce a composition, based on a model, with a personal point of view, demonstrating level-appropriate control of grammar, word form, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	51	Basic 2 Reading/Writing	On completing the Basic 2 Reading/Writing course, a student will be able to (1) recognize main ideas, find supporting details, and recognize the organizational pattern in short and page-length reading passages; and (2) produce a composition, based on a model, with a personal point of view, demonstrating level-appropriate control of grammar, word form, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	52	Basic 2 Grammar	Learn grammar for everyday writing and speaking ; present, progressive and future tenses, irregular verbs in the past tense, modal verbs, pronouns, order of adjectives, and comparisons.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	52	Basic 2 Grammar	Learn grammar for everyday writing and speaking ; present, progressive and future tenses, irregular verbs in the past tense, modal verbs, pronouns, order of adjectives, and comparisons.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	53	Basic Communication Special Topic	Learn to communicate effectively at the basic level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	53	Basic Communication Special Topic	Learn to communicate effectively at the basic level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	60	Intermediate 1 Listening/Speaking	On completing the Intermediate 1 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 1-5 minute listening passages, conversations, instructions, and directions with controlled speech and delivery; and (2) speak informally in common social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	60	Intermediate 1 Listening/Speaking	On completing the Intermediate 1 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 1-5 minute listening passages, conversations, instructions, and directions with controlled speech and delivery; and (2) speak informally in common social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	61	Intermediate 1 Reading/Writing	On completing the Intermediate 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and find supporting details in selected reading passages of a few pages; and (2) produce an organized composition, with a personal or an objective point of view, demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	61	Intermediate 1 Reading/Writing	On completing the Intermediate 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and find supporting details in selected reading passages of a few pages; and (2) produce an organized composition, with a personal or an objective point of view, demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

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AEC	62	Intermediate 1 Grammar	Improve grammar for everyday writing and conversation ¿ present perfect and present perfect continuous and future tenses, noun clauses, and grammar to cover frequency, duration, possibility, and necessity.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	62	Intermediate 1 Grammar	Improve grammar for everyday writing and conversation ¿ present perfect and present perfect continuous and future tenses, noun clauses, and grammar to cover frequency, duration, possibility, and necessity.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	70	Intermediate 2 Listening/Speaking	On completing the Intermediate 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 5-10 minute general topic listening passages with modified speech and delivery; and (2) speak formally and informally on a variety of general topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	70	Intermediate 2 Listening/Speaking	On completing the Intermediate 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 5-10 minute general topic listening passages with modified speech and delivery; and (2) speak formally and informally on a variety of general topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	71	Intermediate 2 Reading/Writing	On completing the Intermediate 2 Reading/Writing course, a student will be able to recognize the main ideas and supporting details and distinguish between fact and opinion in a reading passage of several pages; and (2) produce a composition, based on a writing task, with an objective point of view demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	71	Intermediate 2 Reading/Writing	On completing the Intermediate 2 Reading/Writing course, a student will be able to recognize the main ideas and supporting details and distinguish between fact and opinion in a reading passage of several pages; and (2) produce a composition, based on a writing task, with an objective point of view demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	72	Intermediate 2 Grammar	Focus on an overview of all the tenses. This course also covers passive voice and sequence of tenses with adverbial clauses.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	72	Intermediate 2 Grammar	Focus on an overview of all the tenses. This course also covers passive voice and sequence of tenses with adverbial clauses.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	73	Intermediate Communication Special Topic	Learn to communicate effectively at the intermediate level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	73	Intermediate Communication Special Topic	Learn to communicate effectively at the intermediate level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	80	Advanced 1 Listening/Speaking	On completing the Advanced 1 Listening/Speaking course, a student will be able comprehend the main ideas and supporting details of brief academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	80	Advanced 1 Listening/Speaking	On completing the Advanced 1 Listening/Speaking course, a student will be able comprehend the main ideas and supporting details of brief academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	81	Advanced 1 Reading/Writing	On completing the Advanced 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details and determine logical inferences in selected general reading passages of several pages; and (2) produce a composition, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	81	Advanced 1 Reading/Writing	On completing the Advanced 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details and determine logical inferences in selected general reading passages of several pages; and (2) produce a composition, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	90	Advanced 2 Listening/Speaking	On completing the Advanced 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of complex but abbreviated academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	90	Advanced 2 Listening/Speaking	On completing the Advanced 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of complex but abbreviated academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	91	Advanced 2 Reading/Writing	On completing the Advanced 2 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details, and determine logical inferences in authentic and selected academic and general reading passages of several passages; and (2) produce a well-developed essay, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	91	Advanced 2 Reading/Writing	On completing the Advanced 2 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details, and determine logical inferences in authentic and selected academic and general reading passages of several passages; and (2) produce a well-developed essay, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	92	Advanced Grammar	This course covers complex sentence structure, participial phrases, reduced adjective clauses and appositives, infinitives and gerunds, hypothetical conditionals, and the subjunctive.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	92	Advanced Grammar	This course covers complex sentence structure, participial phrases, reduced adjective clauses and appositives, infinitives and gerunds, hypothetical conditionals, and the subjunctive.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	93	Advanced Communication Special Topic	Learn to communicate effectively at the advanced level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	93	Advanced Communication Special Topic	Learn to communicate effectively at the advanced level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	94	Business English Special Topic	Learn to communicate effectively in a variety of business situations and develop English skills necessary for success in today's business world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	94	Business English Special Topic	Learn to communicate effectively in a variety of business situations and develop English skills necessary for success in today's business world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	95	American Culture Studies Special Topic	Learn about American culture and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	95	American Culture Studies Special Topic	Learn about American culture and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	96	Academic English Studies Special Topic	Learn the Academic English necessary for success at an American university or college.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	96	Academic English Studies Special Topic	Learn the Academic English necessary for success at an American university or college.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	97	TOEFL Special Topic	Improve test-taking strategies for specific areas of the iBT (Internet-Based test) TOEFL and the Institutional (paper and pencil) TOEFL. This is an elective course that meets six hours per week. This course also includes FREE Institutional TOEFL Test while this form of the TOEFL is still available.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3-6		
AEC	97	TOEFL Special Topic	Improve test-taking strategies for specific areas of the iBT (Internet-Based test) TOEFL and the Institutional (paper and pencil) TOEFL. This is an elective course that meets six hours per week. This course also includes FREE Institutional TOEFL Test while this form of the TOEFL is still available.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	X98	ESL Credit Course Special Topic	These courses are introductions to the university environment and to volunteerism in the community. A student will have opportunities to interact and to be exposed various aspects of American culture. These AECP elective courses can also be taken for 3 ASU credits which may be applied to a degree program.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X98	ESL Credit Course Special Topic	These courses are introductions to the university environment and to volunteerism in the community. A student will have opportunities to interact and to be exposed various aspects of American culture. These AECP elective courses can also be taken for 3 ASU credits which may be applied to a degree program.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X99	International Teaching Assistants Training	The ITA training Seminar is a no-fee course offered to international students who are candidates for a teaching assistantship. The seminar is a non-credit semester long course which addresses language improvement, teaching skills, and cross-cultural training.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X99	International Teaching Assistants Training	The ITA training Seminar is a no-fee course offered to international students who are candidates for a teaching assistantship. The seminar is a non-credit semester long course which addresses language improvement, teaching skills, and cross-cultural training.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
AEP	501	Foundations of Ethics I	Studies primary texts of classic ethical theories and their applications to various issues in daily life and the professions. Ethical traditions include some of these frameworks: virtue ethics and natural law ethics, consequentialism and contractualism, deontology and critical communitarianism. Pays attention to the shifting nature of the relation between ethics and religion. In the applied, activity-portion of the course, students investigate real-life ethical issues and examine them from several normative perspectives	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Students who have credit for PHI 501, or REL 581, may not enroll in AEP 501

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEP	550	Ethical and Spiritual Issues in Pastoral Care	Recalling the ancient Socratic, biblical, and other spiritual traditions of the cura animarum (care for and cure of the soul) and joining contemporary post/secular conversations relevant to the integration of the body-mind-spirit, this course introduces basic concepts and practices of the pastoral care ethics and spirituality. Focuses on the irreducible relations among existential (ontological), therapeutic (psychosomatic), and spiritual (religious) dimensions of care. The theoretical part of the course is inter-faith in approach, holistic in scope, and specialized in content; in the applied, activity-portion of the seminar, students investigate real-life issues in care ethics and spirituality and examine them from several perspectives studied during the semester.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: AEP 501 and AEP 502 with a D or better; students who have credit for PHI 550 or REL 585, may not enroll in AEP 550
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
AES	101	Air Force Today I	Introduces U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	102	Leadership Lab	Emphasizes common Air Force customs and courtesies, drill and ceremonies, health and physical fitness through group participation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	103	Air Force Today II	Continuation of AES 101. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	104	Leadership Lab	Continuation of AES 102 with more in-depth emphasis on learning the environment of an Air Force officer.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
AES	201	The Evolution of USAF Air and Space Power I	Further preparation of the AFROTC candidate. Topics include: Air Force heritage and leaders, communication skills, ethics, leadership, quality Air Force, and values.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		

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AES	202	Leadership Lab	Application of advanced drill and ceremonies, issuing commands, knowing flag etiquette, and developing, directing, and evaluating skills to lead others.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	203	The Evolution of USAF Air and Space Power II	Continuation of AES 201. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	204	Leadership Lab	Continuation of AES 202 with emphasis on preparation for field training.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-4		
AES	301	Air Force Leadership Studies I	Study of communication skills, leadership and quality management fundamentals, leadership ethics, and professional knowledge required of an Air Force officer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	302	Leadership Lab	Advanced leadership experiences applying leadership and management principles to motivate and enhance the performance of other cadets.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	303	Air Force Leadership Studies II	Continuation of AES 301. Topics include: communication skills, ethics, leadership, professional knowledge, and quality management required of an Air Force officer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	304	Leadership Lab	Continuation of AES 302 with emphasis on planning the military activities of the cadet corps and applying advanced leadership methods.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	401	National Security Affairs	Examines advanced ethics, Air Force doctrine, national security process, and regional studies. Special topics include: civilian control of the military, military justice, and officership.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	402	Leadership Lab	Advanced leadership experience demonstrating learned skills in planning and controlling the military activities of the corps.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	403	Preparation for Active Duty II	Continuation of AES 401. Topics include: civilian control of the military, doctrine, ethics, military justice, the national security process, and officership.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.		
AES	404	Leadership Lab	Continuation of AES 402 with emphasis on preparation for transition from civilian to military life.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-7		
AES	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	N	Z1	Liberal Arts and Sciences	Department of Aerospace Studies	1-3		
AES	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Aerospace Studies	1-12		
AET	191	First-Year Seminar		Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
AET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	210	Measurements and Testing	Measurement systems, components, system response, and the characteristics of experimental data.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 112 or PHY 131 with D or better
AET	215	Aircraft Systems	Principles and design features of aircraft structures, systems, and materials.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
AET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	300	Aircraft Design I	Applied aerodynamics, standard atmosphere, speed measurement, infinite and finite wings, airplane performance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: AET 215 with D or better; MET 211, ECE 210, or MAE 212 with D or better
AET	310	Instrumentation	Measurement systems, components, system response, and the characteristics of experimental data. Methods of collecting and analyzing data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MAT 261, MAT 271 or MAT 274 with D or better; AET 210 or EET 208 with D or better
AET	312	Applied Engineering Mechanics: Dynamics	Masses; motion kinematics; dynamics of machinery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: APM 271, MAT 261 or MAT 271 with D or better; CON 221, ETC 211, ECE 210, MAE 212 or MET 211 with D or better
AET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	396	Aerospace Professional Orientation	Career focus for Aeronautical Engineering Technology students. Familiarization with the aerospace industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisite: Junior or higher academic level
AET	415	Gas Dynamics and Propulsion	Introduces compressible flow, internal and external flow, and aerothermodynamic analysis of propulsion systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 or MAE 340 OR Technology and Innovation or Fulton Engineering Graduate student

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AET	417	Aerospace Structures	Analysis and design of aircraft and aerospace structures. Shear flow. Semimonocoque structures. Effects of dynamic loading.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 313 (or ECE 313) with D or better; AET 312 (or ECE 312) with D or better; AET 300 with D or better OR Technology and Innovation or Fulton Engineering graduate student
AET	420	Experimental Aerodynamics and Wind Tunnels	Experimental applied aerodynamics related to aeronautical and mechanical design. Wind tunnel design and testing. Low speed flows.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: AET 300 with D or better; MET432 with D or better
AET	432	Applied Heat Transfer	Heat transfer by conduction, convection, and radiation. Applies heat transfer to engineering design problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: ETC 340 or MET 340 with D or better (or co-enrolled in ETC 340); may not enroll in AET 432 if credit received in AET 524
AET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Technology and Innovation BS student; Minimum cumulative GPA of 3.00; Minimum Junior standing
AET	487	Aircraft Design II	Basic aerodynamics and airplane performance analysis methods applied to practical design project.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: AET 300 with D or better; Senior academic level OR Technology and Innovation or Fulton Engineering graduate student
AET	492	Honors Directed Study		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6		
AET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
AET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Manufacturing Engineering Technology students; Minimum cumulative GPA of 2.00
AET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Manufacturing Engineering Technology students; Minimum cumulative GPA of 2.00
AET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
AET	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	524	Application of Heat Transfer	Energy conservation, steady-state and transient conduction, convection transfer, free and forced convection Reynolds analogy, blackbody and environmental radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 or MAE 340 with D or better; May not enroll in AET 524 if you have credit in AET 432
AET	525	Advanced Propulsion	Mechanics and thermodynamics of propulsion systems. Solid, liquid propellant rocket design performance. Electrical nuclear propulsion systems. Space missions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 434, AET 415 or MAE 340
AET	560	Numerical Methods in Engineering Technology	Analyzes problems in physical sciences, models physical problems, perturbation techniques, curvefitting, data analysis, numerical solutions, ordinary and partial differential equations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Technology Innovation or Fulton Engineering students; Senior or higher academic level
AET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		

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AET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		
AET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
AFH	202	Art of Africa, Oceania, and the Americas	History of art of Africa, Oceania, and the New World. Meets non-Western art history requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & H & G	
AFH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	300	Precolonial Africa	Surveys social, economic, political, cultural, and economic institutions and civilizations of Africa before European colonialism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	303	African and African American Art	Anthropological perspective of African and African American visual art traditions from the past to 1970.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	305	The Global History of the Trans-Atlantic Slave Trade	Origins, development, abolition, and impact of Atlantic slave trade as a global economic enterprise and great human tragedy; slavery experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	318	African and African Diaspora Women Writers	Intersection of race, class, gender, and ethnicity in black women's fiction from the United States, the Caribbean, and Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	319	Black Experience in Latin America	Examines several aspects of the experience of Africans in the Latin America diaspora; comparisons with United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	331	Studies in African American Women Writers of Pre-Harlem Renaissance	Focuses on novels, short stories, essays, speeches, and dramas that gave voices to African American woman in pre-Harlem Renaissance era. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	
AFH	335	Survey of African Literatures	Intersection of colonialism, race, class, gender, nationalism, postcoloniality, social transformation, and ethnicity in African writers' fiction and literary production.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees. Fee (hybrid/Internet).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
AFH	353	African American Literature: Beginnings through the Harlem Renaissance	Historical survey of African American literary traditions and cultural contexts from slavery through the 1930s.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	
AFH	354	African American Literature: Harlem Renaissance to the Present	Historical survey of African American literary traditions and cultural contexts from the 1920s to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
AFH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	459	Studies in African American/Caribbean Literatures	Studies in African American or Caribbean literatures according to genre, period, theory, or selected authors. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	
AFH	465	Harlem Renaissance: a Cultural History: 1877-1945	Socio-political, historical contexts and worldwide ramifications of the cultural productions (theater, music, visual arts, and literature) of the Harlem Renaissance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	492	Honors Directed Study		N	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFH	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
AFH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AFH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	191	First Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
AFR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	210	Introduction to African American Studies	Examines the political, historical, and cultural origins of African American studies as an academic discipline.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	317	Genes, Race and Society	Examines history of biological and social constructions of race in western society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFR	375	Race, Gender and Sport	Interdisciplinary examination of the social concepts of race and gender and their economic impact on sports in America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
AFR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	428	Critical Race Theory	Examines ways in which race has been historically utilized, constructed, and contested in American civil society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	429	African American Studies Theory and Methods	Examines social and behavioral science theories and methodological procedures pertaining to African Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	460	Race, Gender and Media	Reading seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	490	Field Studies in the Diaspora	Introduces methods and principles of research applied to Black communities within and outside Arizona. Involves working with field officer and faculty.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
AFR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-7		
AFR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	508	Colonial Rule and the African Experience	Impact of European colonial rule on the shaping of African consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	525	Foundations of Caribbean Studies	Broad interdisciplinary understanding of the Caribbean that surveys the region's history, politics, economy, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	526	Selected Topics in Caribbean Politics	In-depth understanding of the impact of selected topics on the political economy and social infrastructure of the Caribbean.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		

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AFR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		

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AFR	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
AFS	200	Introduction to African and African Diaspora Studies	Introduces the study of African and African-descended peoples; theory, themes, and perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	202	Ethnic Relations in the United States	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFS	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	301	Race and Racism in Africa/African Diaspora	Construction of race, racism, and race relations in Africa/African Diaspora; practices of agency to challenge ethnicity, racism, and racial oppression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	304	Islands of Globalization: Caribbean Political Economy	Impact of globalization on the economic, political, and social condition of the islands and mainland countries of the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	310	African/African American Psychology	Historical and contemporary overview of the development of African/Black psychology and African American frame of reference.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	312	Contemporary African and African Diaspora Women	Explores recent literary, theoretical, and methodological themes concerning the study of African/African Diaspora women and the phenomena of modernization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	320	Africa: Politics, Environment, and Development	Uses African experience to understand the consequences of human environment relationships, wealth and power differentials, and individual and global citizenship.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	327	Human Rights in Africa	Comparative study of human rights focusing on colonial and post-colonial Africa from historical and contemporary perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	332	Life and Death in Ancient Egypt	Reveals ancient Egyptian life through recent research in archaeology and physical anthropology on cemeteries, tombs, and the dead themselves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisite: ASB 222
AFS	340	The Making of Modern Africa	Events and processes leading to the colonization of Africa and subsequent changes in African societies under colonial rule and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	345	The Making of the Caribbean Society	Historical socioeconomic and political factors and institutions creating the wider Caribbean from the 15th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	355	Democracy and Civil Society in Africa	Examines contending perspectives on the state and civil society and democratic struggles using sub-Saharan Africa and case study.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	360	Black Families in the Diaspora: U.S. and Caribbean	Comparative study of historical and current themes in the structure and internal dynamics of African Diaspora families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	363	African American History to 1865	The African American in American history, thought, and culture from slavery to 1865.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFS	364	African American History Since 1865	The African American in American history, thought, and culture from 1865 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C & H	
AFS	366	African Archaeology: Precolonial Urban Culture	Overview of African civilization from the last 10,000 years up to 1850 via archaeological, documentary, and oral data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	370	Family, Ethnic, and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
AFS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	415	Black Political Thought and the Limits of Liberal Democracy	Black political and social thought; conflict between liberal democratic ideals and structures of domination and exploration from African Diaspora perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	466	Peoples and Cultures of Africa	Surveys African peoples and their cultures, external contact, and changes. Meets non-Western requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	480	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		

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AFS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
AGB	420	Food Marketing	Food processing, packaging, distribution, market research, new food research and development, and social implications.	N	LEC	N	OPT	Morrison Sch of Agribusiness	Morrison School of Management and Agribusiness	3.		
AGB	420	Food Marketing	Food processing, packaging, distribution, market research, new food research and development, and social implications.	N	LEC	N	OPT	Morrison Sch of Agribusiness	Morrison School of Management and Agribusiness	3.		
AGB	100	Introduction to Agribusiness	Overview of agribusiness industries and career opportunities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	161	Computer Applications for Agribusiness Industries	Uses and integrates word processing, spreadsheets, and databases as tools for managing an agribusiness firm.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
AGB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	271	Veterinary Medicine Today	Introduces the role of the veterinarian as related to the fields of food supply and veterinary medicine.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	321	Agribusiness Marketing II	Examines the food marketing system with emphasis on the marketing institutions, arrangements, and methods for basic commodities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisites: MKT 300 with a D or better
AGB	333	Agribusiness Finance II	Introduces financial markets and institutions. Interest rate determination, money and banking, equity markets, farm credit system, vendor financing.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisites: FIN 300 with a D or better
AGB	340	Food Processing	Introduces processed food quality assurance, statistical sampling, and inspection procedures.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	360	Agribusiness Statistics	Statistical methods with applications in agribusiness and resource management.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
AGB	364	Agribusiness Technologies I	Biotechnology and other methods used in the production, processing, and distribution of food.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	365	Agribusiness Technologies II	Examines methods of managing diverse crop and livestock enterprises with emphasis on growth, development, marketing, and loss prevention.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	372	Introduction to Veterinary Practice Management Module I	Initial offering of a three-module program that is an overview of the operation of a veterinary practice.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	373	Veterinary Practice Management Module II: Human Resources	Intermediate course of a three-module program covering human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	374	Veterinary Practice Management Module III: Finance and Marketing	Final course of a three-module program covering financial and marketing issues faced by veterinary practice managers.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	410	Agribusiness Management II	Principles of human resource management in agribusiness firms.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisites: MGT 300 with a D or better
AGB	411	Agricultural Cooperatives	Organization, operation, and management of agricultural cooperatives.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	414	Agribusiness Analysis	Analysis of agribusiness firm decisions in the ecological, economic, social, and political environments. Special emphasis on ethical issues surrounding food production and consumption.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	L	Pre-requisite: Business student; minimum 87 hours; FIN 300, MGT 300 and MKT 300 with C or better; SCM 300 with C or better required for Bus Admin, Real Estate and W.P. Carey students; May not register if earned grade of C or better in BUA 440 or 441
AGB	422	Consumer Behavior	Applies behavioral concepts in analyzing consumer food purchases and their implications for marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisite: MKT 300
AGB	424	Agribusiness Sales	Principles and techniques of selling and merchandising in the agricultural and food industries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AGB	425	Agricultural Marketing Channels	Operational stages of agricultural commodities in normal distribution systems and implementation of marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	429	Marketing Research	Examines the marketing research process and its role in facilitating agribusiness decisions. Emphasizes problem identification, survey design, and data analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	431	Intermediate Agribusiness Financial Management	Comprehensive treatment of topics in financial management of agribusiness: capital structure, dividend policy, asset valuation, mergers and acquisitions, risk management.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	433	Intermediate Agribusiness Financial Markets	Role and function of agribusiness in U.S. financial system. Topics include rural banking, farm credit system, monetary policy, and federal reserve.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	434	Agricultural Risk Management and Insurance	Strategies to manage agricultural price and business risk: derivatives, insurance, self-insurance, and public policy.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	435	Agricultural Commodities	Trading on futures markets. Emphasis on the hedging practices with grains and meats. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	436	Entrepreneurship and Financial Management of E-Commerce	Uses lectures, case studies, and business plans to highlight challenges of starting and running a small business.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	440	Food Safety	Control, prevention, and prediction of microbial and chemical food-borne diseases.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	442	Food and Industrial Microbiology	Food- and industrial-related microorganisms; deterioration and preservation of industrial commodities. Lecture, lab.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	4.		
AGB	445	Food Retailing	Food retail management. Discusses trends, problems, and functions of food retail managers within various retail institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	450	International Agricultural Development	Transition of developing countries from subsistence to modern agriculture. Emphasis placed on implications for U.S. agribusiness working abroad.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	G	
AGB	451	Management Science	Focuses on the construction, solution, and interpretation of quantitative models used for management decision making in agribusiness firms.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
AGB	452	International Agricultural Policy	Use of international trade theory to analyze the effects of government policies, trade agreements, and exchange rates on agribusiness.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	454	International Trade	International practices in trading of agribusiness, technology, and resource products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	455	Resource Management	Explores differences between societal and individual valuations of natural resources; considers public policy versus market-based solutions to environmental concerns.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	SB	
AGB	460	Agribusiness Management Systems	Development and use of decision support systems for agribusiness management and marketing.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisites: 56 hours or more; FIN 300; MGT 300; MKT 300
AGB	465	Organic Farming Technologies	Organic farming methods, including certification, soil fertility, planting, integrated pest management, irrigation, cover crops, rotations, and marketing farm products.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	470	Comparative Nutrition	Effects of nutrition on animal systems and metabolic functions.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	481	Applied Microeconomics	Emphasizes application of the theory of the firm, theory of exchange, and consumer theory.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-6		
AGB	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-6	L	Pre-requisites: Must be an Honors student
AGB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-7		
AGB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-3		
AGB	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		

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AGB	511	Advanced Agribusiness Management	Analysis of organization behavior, change, and resource requirements within agribusiness systems.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	513	Advanced Cooperatives	Advanced study of cooperatives and other nongovernmental organizations (NGO) focusing on management and proposal preparation for international agencies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	514	Advanced Agribusiness Analysis	Vertical integration and differentiation in food and agricultural industries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	528	Advanced Agribusiness Marketing	Theory and analysis of marketing farm commodities, risks, and the effect of future trading on cash prices.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	529	Advanced Agribusiness Marketing Channels	Analyzes agribusiness market channel systems. Formulation of marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	532	Advanced Agribusiness Finance	Financial management of agribusiness firms; agribusiness financial analysis, investment analysis, agricultural risk management, and introduction to agricultural financial intermediaries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	535	Commodity Analysis	Analysis of commodity markets.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	540	Advanced Food Science	Chemical and physical nature of processed foods. Emphasizes food product development.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	550	International Agricultural Development	Transition of developing countries from subsistence to modern agriculture. Emphasis placed on implications for U.S. agribusiness working abroad.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	552	International Agricultural Policy	Uses international trade theory to analyze the effects of government policies, trade agreements, and exchange rates on agribusiness.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	554	Advanced International Trade	Advanced international practices in trading of agribusiness, technology, and resource products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	560	Advanced Agribusiness Management Systems	Development and use of decision support systems for agribusiness management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	561	Applied Econometrics	Uses model building, hypothesis testing, and empirical analysis in solving agribusiness problems.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	570	Managerial Economics for Agribusiness	Concepts in micro- and macroeconomics applied to agribusiness management environments: price formation, market structure, information economics, fiscal and monetary policy.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	581	Advanced Agribusiness Policy	Policy-making history, structure, and process.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	589	Agribusiness Capstone	Strategic management of organizations focusing on developing value-creating strategies in dynamic environments.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		

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AGB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	701	Advanced Agribusiness I	Advanced topics include demand analysis, empirical industrial organization, welfare economics, agricultural policy, international trade, and consumer behavior.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	702	Advanced Agribusiness II	Topics include macromarketing, marketing research, futures and options markets, derivatives, risk management, financial innovation, and forecasting.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	703	Agribusiness Research Methods	Survey course in current research methods in economics, marketing, finance, and management as applied to agribusiness topics. May be repeated for credit.	N	SEM	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-15		
AGB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-15		
AIS	180	Introduction to American Indian Studies	Introduces the study of American Indian justice issues from an interdisciplinary perspective. Primary topics include sovereignty, law, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	
AIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	280	American Indian Sovereignty and the Courts	Examines the sovereign status of American Indians and legal relationships between the tribes and the U.S. government.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	H & C	
AIS	285	Federal Indian Policy	Examines the sovereign status of American Indians and legal relationships between the tribes and the U.S. government.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	H & C	
AIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	370	American Indian Languages and Cultures	Emphasizes understanding of Indian language families and the relationship of oral traditions to culture.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	Pre-requisite: AIS 180 with C or better
AIS	380	Contemporary Issues of American Indian Nations	Surveys legal, socioeconomic, political, and educational state of contemporary reservation and urban Indians.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	
AIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	420	American Indian Studies Research Methods	Surveys diverse research methods, including statistical, historical, interpretative, and narrative approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	L	Pre-requisite: AIS 180 with C or better
AIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-12		
AIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-7		
AIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-3		
AIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-12		
AIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		

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ALA	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H & G	
ALA	102	Architecture, Landscape Architecture, and Society	Examines interrelationship between society and the landscape with emphasis on human involvement in shaping the landscape.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	G	
ALA	121	Design Fundamentals I	Development of visual literacy. Introduces drawing and graphic representation as methods of seeing and problem solving.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Architecture or Landscape Architecture student
ALA	122	Design Fundamentals II	Exercises in basic design, stressing creative problem-solving methods, principles of composition, and aesthetic evaluation. Development of vocabulary for environmental design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Architecture or Landscape Architecture student; ALA 121 with a C or better; Co-requisite: ALA 124
ALA	124	Design Fundamentals II Lecture	Theory and applications of basic design principles, history and theory of how architecture and landscape architecture design is impacted by basic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Architecture or Landscape Architecture student; Co-requisite: ALA 122
ALA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ALA	200	Introduction to Architecture	Surveys issues and polemics affecting current architectural theory and practice.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & G	
ALA	225	Design Fundamentals III	Applies design fundamentals with an emphasis on architectural and landscape architectural issues.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Architecture or Landscape Architecture student; ALA 122 with a C or better; Passed milestone; Co-requisite: ALA 227 and ALA 235;
ALA	227	Design Fundamentals III Lecture	History and theory of design fundamentals with an emphasis on architectural and landscape architectural design issues.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Architecture or Landscape Architecture student; Co-requisite: ALA 225 and ALA 235
ALA	235	Introduction to Computer Modeling	Fundamentals of computer operation, geographic information systems, geometric modeling of 3-D forms and rendering of light, mathematical modeling of processes using spreadsheets.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	CS	Pre-requisites: Architecture or Landscape Architecture student; Co-requisites: ALA 225 and ALA 227
ALA	240	Building Construction	Fundamentals of building construction through digital simulation of case study buildings. Construction systems, detailing, and conventions by building 3-dimensional digital model.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Pre-Architectural Studies or Pre-Landscape Architecture student; Co-requisites: ALA 222 and ALA 224
ALA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ALD	101	Introduction to Aging Issues	Introduces students to general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in midlife and beyond, living options, caregiving, and retirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	101	Introduction to Aging Issues	Introduces students to general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in midlife and beyond, living options, caregiving, and retirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-3		
ALD	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	202	Field Placement I	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	202	Field Placement I	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	203	Field Placement II	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202
ALD	203	Field Placement II	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202
ALD	204	Field Placement III	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202; ALD 203
ALD	204	Field Placement III	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202; ALD 203
ALD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	301	Research Methods in Aging	Examines social science approaches to the study of aging. Includes particular methodological issues that must be considered when studying older adults.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled

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ALD	303	Aging, Lifespan Development, and the Family	Explores aging and its effects on family members, as well as how families with aging members are affected by societal issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	303	Aging, Lifespan Development, and the Family	Explores aging and its effects on family members, as well as how families with aging members are affected by societal issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	404	Sexuality in Mid-Life and Beyond	Examines issues of sexuality in the middle and older adult years. Includes physical changes, myths and stereotypes, gender issues, and relationships issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	404	Sexuality in Mid-Life and Beyond	Examines issues of sexuality in the middle and older adult years. Includes physical changes, myths and stereotypes, gender issues, and relationships issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	420	Health Issues and Older Adults	Examines biological, social, and behavioral aspects of health in the later years. Considers the organization and delivery of care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	420	Health Issues and Older Adults	Examines biological, social, and behavioral aspects of health in the later years. Considers the organization and delivery of care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	431	Caregiving for Older Adults	Examines theory and practice of caregiving for the senior population.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better. Students who have credit for ALD 531, may not enroll in ALD 431
ALD	431	Caregiving for Older Adults	Examines theory and practice of caregiving for the senior population.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better. Students who have credit for ALD 531, may not enroll in ALD 431
ALD	440	Social Policy and Aging	Examines the historical, socio-political, and economic issues that are specific to older Americans. Includes federal, state, and local policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better. Students who have credit for ALD 540, may not enroll in ALD 440
ALD	440	Social Policy and Aging	Examines the historical, socio-political, and economic issues that are specific to older Americans. Includes federal, state, and local policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better. Students who have credit for ALD 540, may not enroll in ALD 440
ALD	460	Alzheimer's and Related Dementias	Familiarization with Alzheimer's disease and related dementias from a caregiver's perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	460	Alzheimer's and Related Dementias	Familiarization with Alzheimer's disease and related dementias from a caregiver's perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	472	Women, Aging, and the Life Course	Focuses on issues affecting women as they age, including media messages, cultural differences, economic issues, and relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	472	Women, Aging, and the Life Course	Focuses on issues affecting women as they age, including media messages, cultural differences, economic issues, and relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-6	L	Pre-requisites: Must be an Honors student
ALD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-7		
ALD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-3		
ALD	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	505	Perspectives on Aging and the Life Course	Overview of general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in mid-life and beyond, living options, caregiving, and retirement. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	505	Perspectives on Aging and the Life Course	Overview of general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in mid-life and beyond, living options, caregiving, and retirement. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ALD	520	Health Aspects of Aging Adults	Examines biological, social, and behavioral aspects of health in the later years, and the organization and delivery of care. Includes an emphasis on wellness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	520	Health Aspects of Aging Adults	Examines biological, social, and behavioral aspects of health in the later years, and the organization and delivery of care. Includes an emphasis on wellness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	525	Mental Health in Midlife and Beyond	Focuses on the psychological, emotional, and cognitive changes as individuals age. Includes assessment and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	525	Mental Health in Midlife and Beyond	Focuses on the psychological, emotional, and cognitive changes as individuals age. Includes assessment and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	531	Caregiving Issues for Families and Professionals	Examines the issues of caregiving by family members, in-home aids, and professionals in care facilities. Focuses on issues related to providing care to older adults in a variety of settings. Includes social policy toward caregiving, caregiver stress and reward, the role of social workers, and cultural concerns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	531	Caregiving Issues for Families and Professionals	Examines the issues of caregiving by family members, in-home aids, and professionals in care facilities. Focuses on issues related to providing care to older adults in a variety of settings. Includes social policy toward caregiving, caregiver stress and reward, the role of social workers, and cultural concerns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre/Co-requisites: ALD 505 with C or better if completed; Credit is allowed for only ALD 431, 531 or FAS 421
ALD	535	Physical Activity and Aging	Examines and discusses the theoretical and applied health-related research on physical activity and aging.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	540	Public Policy Issues and Aging	Examines in detail the historical, socio-political, and economic issues that are specific to older Americans at the federal, state, and local levels. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	540	Public Policy Issues and Aging	Examines in detail the historical, socio-political, and economic issues that are specific to older Americans at the federal, state, and local levels. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	545	Elder Abuse and Neglect	Provides a comprehensive review of crimes against older adults. Includes all types of abuse and neglect, as well as prevention, intervention, and public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	545	Elder Abuse and Neglect	Provides a comprehensive review of crimes against older adults. Includes all types of abuse and neglect, as well as prevention, intervention, and public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	560	Dementia	Thorough examination of dementia and dementia syndromes, including Alzheimer's disease. Includes the complexity and diversity of behaviors that define dementia, and implications for planning interventions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	560	Dementia	Thorough examination of dementia and dementia syndromes, including Alzheimer's disease. Includes the complexity and diversity of behaviors that define dementia, and implications for planning interventions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ALD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	360	Renewable Energy Technologies: Fundamentals and Integration	Technical fundamentals, economic, and social aspects of renewable energy technologies with emphasis on solar cells, hydrogen economy, and fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	401	Hydrogen Generation, Storage, and Distribution	Overview of primary technologies, economic aspects, and social policy issues related to development of hydrogen systems and hydrogen economy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	405	Power Conditioning	Fundamentals of power electronics; DC-DC converters and DC-AC inverters; battery charge controllers. Lab experience.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for ALT 505, may not enroll in ALT 405
ALT	410	Solar Cells and Module	Basic device physics and engineering of solar cells. Lab experience on fabrication, characterization, and testing of solar cells and module.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	420	Electrochemical Energy Technologies	Thermodynamic and electrochemical principles of fuel cells. Hands-on experience on fabrication and testing of fuel cells; problem solving skills.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	435	Applied Photovoltaics	Overview of solar radiation, operating principles of photovoltaics, qualitative analysis on influencing parameters. market trends, basics of PV systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Students who have credit for ALT 535, may not enroll in ALT 435
ALT	445	Automotive and Stationary Fuel Cell Systems	Practical overview of fuel cell systems for stationary, residential, and transportation applications based on load and duty cycle requirement of specific application.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
ALT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	501	Advanced Renewable Energy: Global Hydrogen Economy	Global, comprehensive evaluation of all renewable energy sources with focus on solar cells, hydrogen, and fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	502	Batteries for Portable Electronics	Theoretical and practical overview of primary, secondary, and lithium batteries. Key performance characteristics, construction materials, typical applications, recycling, and disposal.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	503	Fuel Cells for Portable Electronics	Overview of electrochemistry, portable electronics industry, principles of fuel cells, and prospects for micro fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	505	Power Conditioning	Fundamentals of power electronics, DC-DC converters and DC-AC inverters, battery charge controllers.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Credit is allowed for only ALT 405 or 505
ALT	506	Fuel Cell Integration and Packaging	Practical overview of integration and packaging of fuel cell system, which comprises a fuel processor module, a fuel cell module.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ALT	507	Evaluations of Photovoltaic and Fuel Cell Systems	Field testing, data collection, and evaluation of real-world photovoltaic and fuel cell systems available on campus and data analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	515	Alternative Energy Reliability and Standards	Alternative energy systems and their reliability issues, accelerated life and safety testing, standards and codes, regulatory requirements.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	535	Applied Photovoltaics	Term projects, overview of solar radiation, operating principles, qualitative analysis on influencing parameters, market trends, basics of PV systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students with credit in ALT 435, may not enroll in ALT 535
ALT	545	Automotive and Stationary Fuel Cell Systems	Practical overview of fuel cell systems for stationary, residential, and transportation applications based on load and duty cycle requirement of specific applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AME	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-6		
AME	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-6	L	Pre-requisites: Must be an Honors student
AME	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-7		
AME	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-3		
AME	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	590	Reading And Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-15		
AME	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-15		

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AML	100	Introduction to Applied Mathematics for the Life and Social Sciences	Introduces quantitative techniques as applied to problems in the life and social sciences. Includes challenges like understanding the complexities of the human genome or the implications of globalization for infectious disease, human health, and economic stability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
AML	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students. Must have taken 25 or fewer semester hours. Consulting an academic advisor before enrolling is recommended.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
AML	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	406	Directed Reading and Research in Applied Mathematics for the Life and Social Sciences	Collaborative, practice-oriented course where students produce individual or team-initiated research project reports on pertinent topics in the life and social sciences. Students select topics, design, identify and formulate effective research ideas, and then translate them into clear and effective research plans.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Completed at least two from the following: MAT 270, 271, 272; AND STP 226 (or 231 or 420)
AML	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
AML	492	Honors Directed Study		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	493	Honors Thesis		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	497	Honors Colloquium		Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
AML	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
AML	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AML	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	610	Topics in Applied Mathematics for the Life and Social Sciences	Introductory course in applied mathematics for the life and social sciences, combined with the first semester of a two-semester course in mathematical biology. Provides a solid introduction to the modeling of biological and social processes as well as to some of the mathematical approaches involved in their analysis and simulation.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
AML	611	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	612	Applied Mathematics for the Life and Social Sciences Modeling Seminar	Presents and applies mathematical modeling principles and techniques for representing the structure and operation of complex life and social systems and processes. Helps students identify potential problems in the life and social sciences and the corresponding mathematical and statistical methods that can be used for their study.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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AML	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AMS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
AMS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	301	Introduction to American Studies	Introduces the interdisciplinary study of American culture, emphasizing critical reading and writing skills.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
AMS	310	History of American Systems to 1865	First of a two-part survey of political, legal, and economic institutions, placed in the context of the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	311	History of American Systems Since 1865	Second in a two-part survey of political, legal, and economic institutions, placed in the context of a dynamic industrialist capitalist society, from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	314	Military Studies	Topics in the history of the American military.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	316	American Religious Systems	Topics in American religion; may include Hispanic missions of the Southwest. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	320	American Cultural History I	First of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
AMS	321	American Cultural History II	Second of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	322	Studies in American Literature	Topics in American literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	323	Studies in American Art and Architecture	Topics in the visual arts and material culture. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	326	Popular Culture	Topics in American popular culture, including theories of popular culture; the history and analysis of mass media, including television, film, and the music industry; and vernacular art and the folk tradition.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	327	Regional Cultures	Examines the concept of regionalism and regional cultures in America with a special emphasis on the Southwest/Borderlands.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	330	Introduction to American Lives	Examines American society through the study of autobiography and ethnography.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
AMS	332	Studies in Race and Ethnicity	Topics relating to issues of race and ethnicity in American life. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	334	The American Class System	Studies in social classes and their function within American society. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	335	American Biography	Topics in biographies of individuals, comparative biographies, the art of biography, and the function of autobiography.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	342	Writing about American Culture	Teaches methods of writing cultural criticism, emphasizing the essay form.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	344	Creative Writing	Emphasizes the study and practice of creative nonfiction. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	345	Reporting	Fundamentals of news gathering, interviewing, and in-depth reporting.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	346	Editing	Theory and practice of editing.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

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AMS	351	Technical Writing	Computer-based instruction in writing documents for online, oral, and print formats, focusing on audience-centered rhetoric.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	412	Studies in American Politics & Law	Topics in American political and legal systems, including social movements in the United States and women and the law. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	414	Military Studies	Topics in the history of the American military. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	417	Religious Traditions of the American Southwest	Examines the sacred traditions that have evolved within the North American Southwest context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	422	Studies in American Literature	Topics in American literature, including contemporary American comic fiction, literature of the American South, literature of American wars, Hispanic chronicles of the Southwest, literature of la Chicana, and American rhetoric. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	428	Chicano Cultures in the Southwest	Examines and explores Chicana and Chicano culture as place and sentiment. The physical place and space and the sentiment related to Chicanas and Chicanos.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
AMS	429	Interdisciplinary Topics	Senior-level seminar that examines issues relevant to two or more American cultures' fields. Topics may include Southwest/border Hispanic folklore, Southwestern corridors, American art and the city, and the West of the imagination. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	431	Gender Studies	Topics relating to issues of gender in American life. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	432	Studies in Race and Ethnicity	Topics relating to issues of race and ethnicity in American life. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	490	Writing Certificate Portfolio	Preparing a portfolio demonstrating advanced writing skills. Limited to and required of students in the Writing Certificate Program.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		
AMS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
AMS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
AMS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		Pre-requisites: ENG 101 or 105 with C or better; AMS 301 with C or better
AMS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMT	100	Flight Operations and Safety I	Supervised private pilot flight training and flight safety briefings and recurrent aviation subjects appropriate for private pilots. Requires continuous enrollment until completion of FAA Private Pilot Certificate. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	2.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND must have C or greater in AMT 182 and AMT 220 OR Corequisite: AMT220 and AMT182
AMT	101	Introduction to Aeronautical Management Technology	Facilitates entry into aeronautical management technology programs. Emphasizes General Catalog; major and concentration requirements, registration, careers, and Polytechnic campus resources. Introduces various learning styles and strategies that assist students in becoming successful learners. Emphasizes time management techniques and academic integrity.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		

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AMT	182	Private Pilot Ground School	Ground school preparation for Private Pilot Certificate. Aerodynamics, navigation, performance, and regulations.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
AMT	200	Flight Operations and Safety II	Supervised commercial instrument flight training, safety briefings, and recurrent aviation subjects as appropriate for commercial and instrument pilots. Requires continuous enrollment until completion of FAA Commercial Pilot Certificate with Instrument Rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	201	Air Traffic Control	Ground and air operations; weather services communications and routing; flight plans, IFR operations, departures and arrivals; and airport conditions and emergencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Aero Mngt Tech (Prof Flight) OR Aero Mgmt Tech (AWS Mgmt) OR Air Traffic Management student
AMT	214	Commercial/Instrument Ground School I	Ground school leading to FAA Instrument Pilot Rating/Commercial Pilot Certificate (part 1 of 2). 10 hours ground trainer included.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Aero Mngt Tech (Prof Flight) student; AMT182, AMT220 and AMT101 with C or better
AMT	220	Aviation Meteorology	Evaluation, analysis, and interpretation of atmospheric phenomena. Low- and high-altitude weather from the pilot's viewpoint.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	280	Aerospace Structures, Materials and Systems	Basic aerodynamics, incompressible/compressible airflow, wind tunnel testing, wing theory; analysis of aircraft structures; properties and applications of materials, and aircraft systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	4.		Prerequisite: Must have earned a D or better in PHY 111, and PHY 113
AMT	287	Aircraft Powerplants	Theory and performance analysis of gas turbine and reciprocating aircraft engines. Engine accessories, systems, and environmental control.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	4.		Prerequisite: Must have earned D or greater or currently enrolled in PHY 111 or PHY 121 OR Corequisite: PHY111 or PHY121
AMT	300	Flight Operations and Safety III	Supervised instructor flight training, safety briefings, and appropriate recurrent aviation subjects. Requires continuous enrollment until completion of FAA Flight Instructor Certificate with Instrument Instructor Rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	308	Air Transportation	Studies the historical and international development of air transportation and its social, political, and economic impact upon global interrelationships.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	Pre-requisite: Total earned hours must be greater than or equal to 50
AMT	322	Commercial/Instrument Ground School II	Ground school leading to FAA Instrument Pilot Rating/Commercial Pilot Certificate (part 2 of 2). 10 hours ground trainer included.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater or currently enrolled in AMT100, AMT182 and AMT214
AMT	350	Aircraft Design and Logistics Management	Fundamental aircraft design principles, including performance factors associated with mission profiles and the identification of basic logistical support requirements. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a C or greater in AMT280 and AMT287 or be currently enrolled OR Corequisites: AMT287
AMT	370	Air Freight Operations	Air freight operations in National Aviation System; ramp operations, loading, weight and balance, and administration of airside and groundside operations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	382	Air Navigation	Theory and application of modern advanced navigation and flight instrument systems. Introduces crew resource management in multiplace cockpits.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater in AMT200 or AMT322 or be currently enrolled
AMT	385	Flight Instructor Ground School	Ground school in preparation for the FAA Flight Instructor Certificate.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	387	Multiengine Pilot Ground School	Ground school preparation for the FAA Multiengine Rating.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Prerequisite: Must be a Technology Science BS student AND have a C or greater in AMT200 or be currently enrolled OR Corequisite: AMT200
AMT	391	Multiengine Instructor Ground School	Ground school preparation for the FAA Multiengine Flight Instructor Rating. Integrated lecture/lab.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	2.		Pre-requisite: Technology Science BS student
AMT	392	Flight Instructor Instrument Ground School	Ground school preparation for the FAA Instrument Flight Instructor Rating.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must be Technology Science BS student AND earned C or greater or currently enrolled in AMT 200 and AMT 385
AMT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
AMT	396	Aviation Professional	Career focus for management and flight students, including internships, writing, interviews, and employment search in aviation industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Pre-requisite: Technology Science BS or BAS student; Minimum 50 hours
AMT	400	Flight Operations and Safety IV	Multiengine and crew training, safety briefings, and appropriate recurrent aviation subjects. Requires continuous enrollment until completion of multiengine rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	401	Multiengine Instructor Rating	Normal and emergency flight operations. Instruction techniques and procedures for light multiengine land, airplane. CFIIAME Rating required for course completion.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		
AMT	408	National Aviation Policy	Examines aviation and airspace policies and policy process, including agencies involved in formulation, implementation, and evaluation of aviation policy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must have a C or greater in AMT 308 or be currently enrolled
AMT	410	Aviation Safety and Human Factors	Aviation accident prevention, human factors, life support, fire prevention, accident investigation, and crash survivability. Development and analysis of aviation safety programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Total earned hours must be greater than or equal to 50
AMT	412	Air Transportation Research	Surveys practical research methodology in use in the air transportation industry. Topics include planning and design considerations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		

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AMT	442	Aviation Law/Regulations	Aviation within context of U.S. Common Law system. Public law, administrative rule making, sovereignty, enforcement, and case law analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Total earned hours must be greater than or equal to 50
AMT	444	Airport Management and Planning	Orientation to administration and management of modern public airports, including overview of planning, funding, and development of airport facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Minimum Junior standing
AMT	482	Airline Instrument Procedures	Advanced instrument flight using airline instrument procedures and airline crew and cockpit resource management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater in AMT200 or 322 or currently enrolled AND earned a C or greater in AMT 382 or be currently enrolled
AMT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
AMT	486	Regional Jet Aircraft Systems	Regional jet airline aircraft systems and flight procedures. Includes theoretical education for regional jet commercial passenger aircraft.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must be Technology Science BS student AND earned a C or greater in AMT300 and AMT382 or be currently enrolled AND must have a C or greater in AMT 482 or be currently enrolled or Corequisite: AMT482
AMT	488	Regional Jet Aircraft Systems II	Regional jet systems, with emphasis on air navigation systems, including Flight Management System (FMS), Selective Calling (SELCAL), and flight profiles.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	489	Airline Administration	Administrative organizations, economics of airline administration, operational structure, and relationship with federal government agencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Academic level must equal Junior or greater AND must have a C or greater in AMT 308 or be currently enrolled
AMT	490	Regional Jet Operations Capstone	Regional jet aircraft operations and flight procedures. Includes theoretical education for RJ aircraft, FTD and full-motion simulator time.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND must have a C or greater in AMT400 and AMT482 or currently enrolled AND AMT300 or AMT486 or be currently enrolled
AMT	491	Aviation Management Capstone	Integrated group project with industry partner to address current problems in either air carrier or airport management focus area.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Academic Level greater than or equal to Senior
AMT	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-6	L	Pre-requisites: Must be an Honors student
AMT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Prerequisite: University Cumulative GPA is greater than or equal to 2.25
AMT	496	Airline Aircraft Systems Capstone	Commercial airline aircraft systems and flight procedures. Includes theoretical education for large, commercial passenger aircraft.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		
AMT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		
AMT	520	Airline Pricing and Yield Management	Airline economics at the operating level; historical and current operational strategies; demand, traffic, price, yield, revenues, and costs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	521	Air Transportation Regulation	Reviews evolutionary history of government regulations. Explores alternatives for economic, safety, social, and administrative regulatory reform in air transportation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	522	Aviation Law	Examines the U.S. legal system with a focus on the aviation perspective, administrative agencies, FAA enforcement, and case law.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	523	Intermodal Transportation Management	Systems theory applied to intermodal transportation networks. Surveys air and ground transportation infrastructure, institutional frameworks, and intermediaries promoting connections between modes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	524	Airport Management and Operations	Overview of planning, funding, and development of airport facilities; legal and ethical considerations associated with airport management operations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	525	Airport Planning and Design	Completion of various phases of airport master planning process. Provides guidance for logical and timely development of airports. Project work groups assigned.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	526	Aviation Labor Relations	Investigates labor-management relations in the aviation industry, including laws, unionism, collective bargaining, public sector relationships, grievance procedures, and conflict.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	527	Airline Management Strategies	Since deregulation, airlines have undergone profound changes through mergers, consolidation, and acquisition. In-depth look at airline management strategies for the 21st century.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	528	International Aviation	Major issues of international aviation, historical review of institutional framework. Bilateral route agreements, freedom versus sovereignty, current legal and political arrangements.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AMT	529	Fixed-Base Operations Management	Examines FBO role in the national aviation system. Organization of flight line operations, aircraft maintenance, and administration for multiple aircraft types.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	532	Managing Diversity in Aviation	Examines group identity and cognitive styles, cross-cultural issues, language and diversity, and effects of aviation culture on management of diversity.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	541	Aviation Physiology	Surveys human physiology and human performance principles related to modern aircraft and aircraft systems operating in multiple environments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	542	Human Factors in Automation	Examines human factors issues associated with automation. Includes impact of automation design, workload, stress, and system complexity on human operators.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	545	Human Factors in Aviation	Overview of human role in aviation. Issues, problems of unsafe acts and attitudes in human behavior. Human engineering capabilities and limitations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	546	Crew Resource Management/Line-Oriented Flight Training	Evaluates in-depth, multicrow coordination issues for commercial aviation pilots. Stresses importance of critical thinking, decision making, integrated resource utilization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	549	Applied Human Factors Research	Aviation human factors research principles applied and tested in operational settings. Group projects assigned in conjunction with industry partners.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
ANP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ANP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	475	Computer Programming in Architecture	Computer programming for architectural problems and applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ANP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

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ANP	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ANP	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
ANP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ANP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ANP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design (Energy Perform/Bldgs) MS, Building Design (Facilities Dev/Mgt) MS or Building Design (Knowledge/Compng) MS student
ANP	530	Computer Graphics in Architecture	Fundamentals of computer graphics programming in architecture, including graphics hardware, device-independent packages, 2- and 3-D transformations, and data structures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be MS Building Design Knowledge and Computing student
ANP	561	Architectural Information Processing Systems	Applies information processing systems to architectural problems. Analyzes computing tools with respect to assumptions and theories.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bld Design (Knowledge/Compng) MS student
ANP	563	Methods in Architectural Design Computation	Concepts and models for research in computer-aided architectural design with an emphasis on computational methods and a system framework.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be Bld Design (Knowledge/Compng) MS student
ANP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design (Knowledge/Compng) MS student
ANP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design (Knowledge/Compng) MS student
ANP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	DIS	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
ANP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ANP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design Knowledge and Computing MS student; ANP 592 with a grade of Y
ANP	681	Project Development	Defines and elaborates on major ideas for implementation in ADE 622 in relation to contemporary theory and practice.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student
ANP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design Knowledge and Computing MS student
APA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisite: Freshman status
APA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	200	Introduction to Asian Pacific American Studies	Examines historical and contemporary issues facing Asian Americans and Pacific Islanders in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C	
APA	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
APA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	310	Asian Pacific American Arts and Cultures	Explores Asian Pacific American cultural expression in art, literature, film, theatre, dance, and music.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
APA	315	Asian Pacific American Literature	Explores the literary history, critical reception, and major theories in Asian Pacific American poetry, fiction, and prose.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
APA	330	Asian Pacific American Genders and Sexualities	Explores gender and sexuality issues as they relate to Asian Pacific American experiences, including interracial relationships, stereotypes, feminism, queer theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
APA	340	Asian Pacific Americans and Media	Analyzes social construction of Asian Pacific American media images and resistance to those images in various historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
APA	345	Asian Pacific Americans and Film	Examines representations of Asian Pacific Americans in narrative, popular, experimental, and documentary film.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C & H	
APA	360	Asian Pacific American Experience	Historical and contemporary experiences of Asian Pacific American racial/ethnic groups in the United States.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C	
APA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	450	Asian Pacific American Contemporary Issues	Focus on issues shaping Asian Pacific American communities, including immigration, politics, education, health, family, gender, youth, interracial relations, and other contemporary topics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
APA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
APA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
APA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
APA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
APH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
APH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	300	World Architecture I/Western Cultures	Historical and contemporary built environments of Western civilizations: Mediterranean, Europe, and the Americas as manifestations of cultural history and responses to environmental determinants.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2-3	HU & H & G	Pre-requisite: May not be Pre-Architectural Studies or Architectural Studies BSD student
APH	305	Contemporary Architecture	Europe and America from the foundations of the modern movement to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	Pre-requisites: Non-majors only (non-architecture students)
APH	313	History of Architecture I	Surveys the monuments, buildings, and cities of Europe and Africa from the earliest human settlements to the present day.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & G & H	Pre-requisite: Juniors and Seniors only

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APH	314	History of Architecture II	Surveys the monuments, buildings, and cities of Asia and the Americas from the earliest human settlements to the present day.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & G & H	Pre-requisites: APH 313 with a C or better
APH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	411	History of Landscape Architecture	Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	
APH	414	History of the City	The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & H	
APH	421	First Concepts: What is... The Writing, Philosophy, and Culture of Architecture	Examines the major writings and concepts that surround the history of architecture. Focuses on (but not exclusively) work in the 20th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	L or HU	Pre-requisites: Architecture student; APH 313 and APH 314 with C or better
APH	441	Ancient Arch	Architecture of the ancient Mediterranean world with selective emphasis on major historical complexes and monumental sites.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
APH	446	20th-Century Architecture I	Architecture in Europe and America from the foundations of the modern movement to the culmination of the international style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
APH	447	20th-Century Architecture II	Developments in architecture since the international style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
APH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
APH	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
APH	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
APH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
APH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
APH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
APH	505	Foundation Theory Seminar	Foundation of conceptual architectural inquiry, stressing the reciprocal and interdependent relationship between design and theory.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student; Co-requisites: ADE 522; ATE 556
APH	509	Foundation Seminar	Historical, technical, theoretical, environmental, and professional issues in architecture.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture; Co-requisite: ADE 510
APH	511	Energy Environment Theory	Solar and other energy sources in designed and natural environments; architectural, urban, and regional implications of strategies using other renewable resources.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Master of Architecture, Master of Urban Design or Building Design MS student
APH	515	Current Issues and Topics	Critical examination of current architectural issues, topics, and discourse.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: APH 505 with a C or better; Co-requisite: ADE 621
APH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	581	Contemporary Urban Design	Explores contemporary city and urban design issues related to contemporary cities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
APH	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APL	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Applied Linguistics Ph.D. student
APL	588	Spanish Language Acquisition		N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
APL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Applied Linguistics Ph.D. student

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APL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
APL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	601	Introduction to Applied Linguistics	Overview of the field of applied linguistics. Applies linguistic knowledge to the resolution of language-related issues facing multilingual societies (e.g., second language acquisition and ultimate attainment, literacy, language assessment, bilingualism, heritage and indigenous languages, language attitudes, language planning and policy, language and politics, world Englishes).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
APL	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		

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APL	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		
APM	265	Mathematics of Change I	The mathematics of differential calculus applied to engineering and science. Emphasizes numerical techniques, contextual scientific interpretation, and modeling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
APM	266	Mathematics of Change II	The mathematics of integral calculus and power series applied to engineering and science. Emphasizes numerical techniques, contextual scientific interpretation, and modeling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: APM 265 or MAT 265 with C or better
APM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
APM	301	Introductory Statistics	Probability, distributions, statistical hypothesis testing, t-tests, basic correlation, and regression.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
APM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
APM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-7		
APM	501	Differential Equations I	Linear and nonlinear ordinary differential equations. Existence and uniqueness of solutions, limit sets, stability, Lyapunov functions, linear systems with constant coefficients. Geometry of behavior in two and three dimensions, including Poincare-Bendixson theorem, Lorenz equations, linearization, sensitive dependence on initial conditions, bifurcations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	502	Differential Equations II	Partial differential equations, including classification, method of characteristics, separation of variables, boundary value and initial value problems, Green's functions, maximum principle, distributions, and weak solutions. Students must have already taken or be concurrently enrolled in Differential Equations 1.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	503	Applied Analysis	Convergence sequences and series of functions; metric space topology, compactness, completeness and the Ascoli-Arzelà Theorem; Contraction Mapping Principle, Implicit Function Theorem; intro to Lebesgue integration leading to L^p -spaces; properties of Hilbert spaces, Fourier transform. Students should have knowledge of linear algebra, multivariable calculus, and analysis at the undergraduate level.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	504	Applied Probability and Stochastic Processes	Markov chains, Martingales, probability measures, SDE, Brownian motion, Monte Carlo methods. Students should be an APM graduate student.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	505	Applied Linear Algebra	Fundamentals of linear algebra and numerical linear algebra, including decompositions (LU, QR, SVD), Eigen values, spectral theory, least squares problems. Programming with MATLAB. Students should be an APM graduate student.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	506	Computational Methods	Covers interpolation, solution of nonlinear equations and systems, numerical differentiation, numerical integration, numerical solution of ordinary and partial differential equations. Students should be an APM graduate student.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	520	Advanced Numerical Linear Algebra	Extends topics of APM 505. Introduces essential iterative methods, Gauss-Seidel, conjugate gradients. Methods for SVD, total least squares and root-finding applications in image analysis. Students should have basic knowledge of numerical linear algebra and a programming language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	521	Numerical Analysis for Ordinary Differential Equations	Stability, accuracy, consistency, RK methods, finite differences, linear partial differential equations, dispersion, dissipation, method of lines. Applications and programming. Students should have had a previous graduate course in ODE or applied analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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APM	522	Numerical Methods for Partial Differential Equations	Numerical methods for parabolic, elliptic, and hyperbolic partial differential equations, including finite difference/volume, finite element, and spectral methods. Mathematical concepts of stability, consistency, and convergence. Applications to scientific, biomedical, and industrial problems. Students should have a basic knowledge of PDE's and a programming language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	523	Optimization	Linear programming, unconstrained nonlinear minimization, line search algorithms, conjugate gradients, quasi-Newton methods, constrained nonlinear optimization, gradient projection, and penalty methods. Completion of courses in Applied Linear Algebra and Computational Methods is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	524	Spectral Methods	Extends approximation theory to global methods, including Fourier and orthogonal polynomial expansions. Applications to imaging and hyperbolic, parabolic, and elliptic partial differential equations. Students should have previous graduate courses in ordinary and partial differential equations, basic programming skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	525	High-Performance Computing	Supercomputer architectures, parallel programming environments, languages, libraries, and algorithms for high-performance numerical simulations. Instructor/Department approval is required for this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	526	Advanced Numerical Methods for Partial Differential Equations	Partial content will vary from semester to semester, but may include hyperbolic conservation laws, finite element methods, multigrid methods, and parallel algorithms for partial differential equations. Applications to scientific, biomedical, and industrial problems. Students should have basic knowledge of PDE's and a programming language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	530	Mathematical Cell Physiology.	Mathematical modeling of dynamical aspects of cell physiology. Diffusion, membrane transport, intracellular calcium channel kinetics, calcium oscillations and waves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	531	Mathematical Neuroscience I	Mathematical modeling of electrochemical processes in nerve cells. Dendritic modeling, dendritic spines and synaptic plasticity, bifurcation analysis of excitable membrane models, deterministic and stochastic methods for threshold dynamics and bursting, relaxation oscillations. Students should have had a previous graduate-level PDE course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	532	Mathematical Neuroscience II	Mathematical modeling of systems neuroscience. Network dynamics, coupled phase oscillators, central pattern generators, neural coding, learning and memory. Students should have taken ordinary differential equations or mathematical cell physiology or mathematical neuroscience prior to enrolling in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	533	Mathematical Population Biology I	Selectively covers population biology models in the forms of systems of difference equations or ordinary differential equations. Focuses on mathematical analysis of population models as well as model formulation and simulation. Students should have a previous graduate-level course in ODE.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	534	Mathematical Population Biology II	Selectively covers population biology models in the form of partial differential equations and systems. Focuses on mathematical analysis of population models as well as model formulation and simulation. Students should have a previous basic graduate-level course in ODE and PDE.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	535	Mathematical Models in Medicine	Mathematical models for the etiology, epidemiology, pathogenesis, morphology and treatment of disease. Covers dynamical models of cancer and viral infections.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	541	Stochastic Modeling in Biology	Markov processes, random walks, martingales, branching processes, logistic growth model, Wright-Fisher model, Kingman's coalescent, bound and site percolations, contact processes, voter models. Students should have previously taken course work in probability and/or stochastic processes (or have a recommendation from their advisor). Recommendation from advisor is typically for students in biology or physics that have not taken statistics courses but have a good background in mathematics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	553	Dynamical Systems	Center manifolds, structural stability, normal forms, averaging, chaos, control and synchronization. Students should have a previous graduate course in ODE or applied analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	560	Applied Dynamical Systems	Bifurcations, normal forms, pattern formations, mixing, Lagrangian chaos, and applications to fluid dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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APM	561	Nonlinear Analysis of PDEs in Fluids	Sobolev spaces; incompressible Euler and Navier-Stokes equations; weak and strong solutions; attractors and the connection with turbulence; geophysical applications. Completion of a course in Differential Equations II is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	570	Applied Linear Operators	Bounded linear and compact operators on Hilbert spaces. Linear integral equations, Fredholm and Hilbert-Schmidt theory, and approximate methods. Distributions. Completion of a course in Applied Analysis is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	575	Perturbation Methods in Applied Mathematics	Regular and singular perturbation methods for ordinary and partial differential equations, Boundary layer theory, matched asymptotic expansions, multiple-scale, homogenization, and WKB methods. Application to nonlinear oscillations, bifurcation and stability problems. Completion of a course in Differential Equations II or Partial Differential Equations in Engineering is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: APM 502 or MAE 502; Credit is allowed for only APM 575 or MAE 505
APM	576	Theory of Partial Differential Equations	Existence and uniqueness theorems, boundary value and initial value problems, characteristics, Green's functions, maximum principle, distributions, and weak solutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	577	Theory of Partial Differential Equations	Continuation of APM 576. Completion of a course in the Theory of Partial Differential Equations is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	581	Geometry and Control of Dynamical Systems I	Manifolds, tangent and cotangent bundle, Lie theory, integrability and controllability, and feedback control. Students should have previously taken coursework in differential equations, applied analysis, applied probability, and stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	582	Geometry and Control of Dynamical Systems II	Variational principles, Euler-Lagrange equations, Hamiltonian systems, optimal control, connections and curvature. Students should have previously taken coursework in differential equations, applied analysis, applied probability, and stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
APM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
APM	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
APM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
APM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
APM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
APM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
AR	461	Adv Ceramics I		Y	LEC	Y	CNV	Herberger College of the Arts	School of Art	3.		
ARA	110	Sculpture Safety	Introduces safety and environmental health in the sculpture studios. Pre- or corequisite for all sculpture classes.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Art	1.		
ARA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	195	Art in My World	Basic concepts and fundamental questions that provide insights into art making and that affect one's understanding and appreciation of art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARA	202	Understanding Photographs	Slide lecture course in understanding photography as a fine art form.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		

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ARA	311	Art Appreciation and Human Development	Foundations of art for children and young adults. Emphasizes learning, development, and understanding art in historical and cultural contexts. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: Non-ART student; ENG 101; ENG 102; Minimum Junior standing
ARA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	460	Gallery Exhibitions	Practical experience in all phases of department gallery operations and preparation of gallery publications.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARA	488	Understanding Art	Understanding art as an emergent cultural phenomenon with an emphasis on a critical examination of conceptual issues in art. Writing required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L or HU	Pre-requisites: ARS 101; ARS 102
ARA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		
ARA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARA	460	Gallery Exhibitions	Practical experience in all phases of department gallery operations and preparation of gallery publications.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
ARA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ARA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARB	101	Elementary Arabic I	Reading, writing, speaking, and understanding basic Arabic. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARB	102	Elementary Arabic II	Reading, writing, speaking, and understanding basic Arabic. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ARB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Maximum 24 earned hours
ARB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	201	Intermediate Arabic I	Review of Arabic grammar with emphasis on the development of the skills of listening comprehension, reading, speaking, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ARB	202	Intermediate Arabic II	Review of Arabic grammar with emphasis on the development of the skills of listening comprehension, reading, speaking, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ARB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	311	Advanced Arabic Skills I	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	321	Arabic Conversation I	Emphasizes spoken Arabic and conversation skills. Simultaneously develops communicative skills, vocabulary, and cultural awareness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	331	Arabic/Islamic Culture and Literature	General introduction to the Middle East that synthesizes cultural, social, and literary information. Focuses on the experiences of ordinary Middle Eastern people to convey a grassroots sense of the Middle East.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	335	Arabic Culture and Islam	Develops awareness of Arabic culture and Islam. Covers a variety of cultural topics, including family, status of women, food, music, and Islam.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
ARB	341	Quran Text and Women	Addresses Muslim women scholars' argument that it is not the religion but the patriarchal interpretation of the Quran that have kept Muslim women oppressed.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	351	Classical Arabic Literature	Provides a survey in classical Arabic literature. Focuses on the development of classical Arabic poetry and prose since their interceptions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	411	Advanced Arabic Skills II	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	421	Arabic Conversation II	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ARB	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
ARB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
ARB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ARB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ARB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARD	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		

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ARD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		
ARE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARE	250	Teaching Inquiry in Art	Using inquiry to investigate artwork and to teach others to make and understand art. Introduces viewpoints for art understanding.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ARS 101, ARS 102, and 6 hours (2 classes) from ART 111, 112, 113 or 115 with a C or better or currently enrolled
ARE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	301	Studio Art and Human Development	Study of human development in studio art from early childhood to adult years.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	370	Teaching Visual Culture	Explores issues and applications of everyday aesthetics that contain powerful technological, social, and economic factors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	440	Disciplines of Art Education	Explorations in art education's disciplines, history, and people's artmaking development at diverse age levels and abilities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	482	Teaching Art Processes	Art traditions of the 20th century as a basis for studio and art history instruction. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Fine Arts Art student
ARE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	486	Art Education: Strategies and Applications	Implementation and evaluation of art instruction for K-12 population. Includes teaching of Saturday classes in the Children's Art Workshop. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-Requisites: Must be an Art student and must have completed ARE482 with a grade of B or greater or be currently enrolled
ARE	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ARE	493	Honors Thesis		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Pre-requisites: Must be an Honors student
ARE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	496	Methods and Assessment of Learning in Art	Individual or group research on the assessment of art learning incorporating theory and practice. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be an Art student; ARE 250 with a C or better; Art portfolio completed
ARE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisites: Minimum 90 hours
ARE	510	Visual Culture Research	Research on instruction of everyday aesthetics and related issues that contain powerful technological, social, and economic factors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	520	Issues in Teaching Inquiry in Art	Issues in teaching and learning through inquiry about artworks using print and electronic reproductions and information.	N	DIS	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	525	Research on Art Instruction	Research methods and assessment of learning in art. Pilot studies on the effects of instruction on learning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	530	Issues in Teaching Studio Art	Critical examination of issues concerning teaching multicultural art to different populations of students. Historical and philosophical foundations reviewed. Recommended to be taken before ARE 535.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	535	Research on Teaching Studio Art	Review of empirical and historical research methods, learning theory, and assessment of learning in studio art, including developmental studies and their limitations. Pilot studies on the effects of instruction upon learning. Recommended to be taken after ARE 530.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	540	Teaching Art in Cultural Contexts	Relationship of multicultural perspectives to teaching/learning art criticism, aesthetics, studio art, and art history.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Art	1-12		
ARE	610	Issues and Trends in Art Education	Doctoral-level investigation of historical and contemporary issues related to teaching and research in art education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	611	Curriculum Development in Art Education	Doctoral-level inquiry into the philosophical, psychological, and sociological foundations of curriculum development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Art	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ARP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ARP	451	Architecture Field Studies	Organized field study of architecture in specified national and international locations. Credit/no credit. May be repeated for credit with director approval.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ARP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: ADE 322 with a C or better; Co-requisite: ADE 421; ATE 451
ARP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ARP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ARP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ARP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	SEM	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Master of Architecture student; ADE 522 with a C or better
ARP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Master of Architecture student
ARS	100	Introduction to Art	Understanding of art and its relationship to everyday life through painting, sculpture, architecture, and design. No credit for Art majors or non-Art majors who have completed ARS 101 or 102 or 300.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	201	Art of Asia	History of the art of the Asian cultures, with emphasis on China, Japan, and India. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	202	Art of Africa, Oceania, and the Americas	History of art of Africa, Oceania, and the New World. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	250	History of Photography	History of photography from the 19th century to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	250	History of Photography	History of photography from the 19th century to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	300	Introduction to Art	Course content same as ARS 100 but requires a higher level of accomplishment and comprehension. No credit for Art majors or non-Art majors who have completed ARS 100. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	300	Introduction to Art	Course content same as ARS 100 but requires a higher level of accomplishment and comprehension. No credit for Art majors or non-Art majors who have completed ARS 100. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	302	Art/ Africa,Oceania & Americas	Issues in the art of Africa, Oceania, and the Americas related to ritual, gender, transformation of tradition, and encounters with Europeans.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	Pre-requisite: ENG 102, 105, or 108
ARS	302	Art/ Africa,Oceania & Americas	Issues in the art of Africa, Oceania, and the Americas related to ritual, gender, transformation of tradition, and encounters with Europeans.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	310	The Renaissance in Tuscany	Course taught in Florence, Italy. History of arts in Tuscany with focus on city of Florence from 14th through 16th centuries. Completion of ARS 101 and 102 suggested.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	340	Art in America	American art from colonial times through the Second World War. Not available to students who have completed ARS 542.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	362	Pre-Columbian Art I	Architecture, sculpture, ceramics, painting, and other arts of Mesoamerica before European contact. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	365	Native North American Art	Native American art forms of the United States and Canada from prehistoric times to the present. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	400	History of Printmaking	History of the print as an art form and its relation to other modes and forms of artistic expression.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	402	Art of Ancient Egypt	Aesthetic, philosophical, and cultural basis of Egyptian art from pre-Dynastic period through New Kingdom. Emphasis on sculpture and architectural monuments. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	404	Greek Art	History of art, architecture of Aegean civilizations (Cycladic, Minoan, Mycenaean) and of Greece to end of Hellenistic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	406	Roman Art	Art and architecture of Etruria, the Roman Republic, and the Roman Empire.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	410	Early Christian and Byzantine Art	Art and architecture of the early church and the Byzantine Empire from the 4th to the 15th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102

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ARS	412	Early Medieval Art	Painting, sculpture, architecture, and the minor arts from Migration, Carolingian, and Ottonian periods considered within religious, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	414	Romanesque Art	Sculpture, painting, architecture, and minor arts in western Europe, ca. 1030-1200, considered within religious, economic, and social contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101, & ARS 102 with a grade of D or better
ARS	416	Gothic Art	Painting, sculpture, and architecture in western Europe during the Gothic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	417	Late Gothic Art in Central Europe	Sculpture, painting, and architecture of the late-Gothic style, ca. 1350-1525, considered within religious, social, economic, and political contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ARS 101; ARS 102; Credit is allowed for only ARS 417 or 517
ARS	418	German Renaissance and Reformation Art	Graphics, painting, sculpture, and architecture, ca. 1450-1550. Reformation themes and Renaissance style considered within religious, political, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	422	Italian High Renaissance Art and Mannerism	History of Italian art during the 16th century, including the achievements and influence of Leonardo da Vinci, Raphael, and Michelangelo.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	424	Italian Baroque Art	Italian painting, sculpture, and architecture of the 17th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	426	Art of the 17th Century in Northern Europe	Baroque painting, sculpture, and architecture in Flanders, the Netherlands, France, and England.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	428	Art of the 18th Century	History of painting, sculpture, architecture, graphic arts, and the decorative arts from 1700 to the French Revolution (1789).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101, & ARS 102 with a grade of D or better
ARS	430	Art of Spain and its Colonies	Architecture, painting, and sculpture from 1500 to 1800. Colonial focus on central Mexico and the American Southwest.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101, & ARS 102 with a grade of D or better
ARS	432	19th-Century French Art and Culture	History of painting, graphic arts, sculpture, and architecture, 1800 to 1900 in France in its political, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101, & ARS 102 with a grade of D or better
ARS	434	Art and Visual Culture of 19th Century	History of European art (all media) from French Revolution to Paris World Fair of 1900.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101, & ARS 102 with a grade of D or better. Students who have credit for ARS 534, may not enroll in ARS 434
ARS	435	The Pre-Raphaelites	Visual and literary works by Victorian Pre-Raphaelites as works in themselves and through relations between images and texts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-or Co-requisites: ARS 102, ENG 221, or HST 202 (with D or better if completed)
ARS	436	The Artist, War, and Revolution (Versailles to Vietnam)	Critical study of artistic responses to war and revolution in Europe and United States from French Revolution to Vietnam conflict.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	437	British Culture and Empire	Examines British imperial culture in art and literature, 1870-1914, and postcolonial theory.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: A grade of B or better in one course in ARS, ENG, or HST at 200 level or higher
ARS	438	Art of the 20th Century I	Developments and directions in art between 1900 and World War II.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101 and ARS 102 with D or better or currently enrolled
ARS	439	Art of the 20th Century II	Art since World War II, with consideration of new concepts and experimentation with media and modes of presentation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 102 with a grade of B or better
ARS	442	Critical Issues in American Painting	Explores issues of national identity and western expansion, Manifest Destiny, through images of race and violence in western American painting from 1800 to the early 20th century. Includes "claiming and settling the wilderness," cultures in conflict, the cowboy, and visions of an enchanted land.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	451	20th Century Photography	Personalities, processes, images, and ideas in photography from 1914 to present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	458	Critical Theories in the Visual Arts	Examines current critical theories through their application to all visual arts. May include new historicism, Marxism, deconstruction, post-structuralism, semiotics, Lacanian psychoanalysis, feminism, postmodernism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	459	Writing Art Criticism	Traditional and contemporary approaches to the criticism of art. Students write critical essays. Latter half of the semester stresses the criticism of contemporary art in various media.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ARS 458
ARS	460	Art Now	Critical overview of major issues and controversies of the last 10 years within the global, national, and local art scene.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ARS 439
ARS	466	Native American Art of the Southwest	American Indian art in the southwestern states from its origins to the present day. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	
ARS	468	Art of the Arctic and Northwest Coast	Art associated with ceremony, shamanism, and daily life in the Arctic and on the Northwest Coast. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	Pre-requisites: ARS 101, & ARS 102 with a grade of D or better
ARS	469	Mexican Art	Art of Mexico and related Central American cultures from the prehistoric to the contemporary schools. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	469	Mexican Art	Art of Mexico and related Central American cultures from the prehistoric to the contemporary schools. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	472	Art of China	Study of major forms in Chinese art: ritual bronze, sculpture, ceramic, calligraphy, painting, and architecture. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	473	Art of Japan	Japanese art from the Jomon period to the present. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101, & ARS 102 with a grade of D or better
ARS	475	Chinese Painting	From Ku K'ai-chin to Ch'i Pai-shih. Major artists, styles, and movements in Chinese painting. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101, & ARS 102 with a grade of D or better

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ARS	480	Research Methods	Methodology and resource material for art historical research. Techniques of scholarly and critical writing and evaluation of bibliographic sources.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L	Pre-requisites: Museum Studies or Art History student; Junior standing; ARS 101 and ARS 102 with B- or better
ARS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	485	Women in the Visual Arts	Historical study of art by women in various media; related social, political, educational issues; representation of women in art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L	Pre-requisites: ARS 101, & ARS 102 with a grade of D or better
ARS	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ARS	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Pre-requisites: Must be an Honors student
ARS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisite: Minimum 90 hours
ARS	501	Methodologies and Art History	History of the discipline and an exploration of various methodologies, critical theory, and bibliographies used by art historians.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	502	Critical Studies in Egyptian Art	Egyptian art from pre-Dynastic to New Kingdom periods. Focus on aesthetic, philosophical, and cultural contexts. Research paper and readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	504	Critical Approaches to Greek Art	Art and architecture of Aegean civilizations (Cycladic, Minoan, Mycenaean) and of Greece to end of Hellenistic period. Research paper and readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be a Graduate Student
ARS	506	Critical Studies in Roman Art	Art and architecture of Etruria, the Roman Republic, and the Roman Empire. Research paper and/or supplemental readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	514	Critical Approaches to Romanesque Art	Sculpture, painting, architecture, and the minor arts in western Europe, ca. 1030-1200, considered within religious, economic, and social contexts. Requires research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	516	Critical Approaches to Gothic Art	Architecture, sculpture, painting, and the minor arts in western Europe, ca. 1150-1350, considered within religious, social, and economic contexts. Requires research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	517	Critical Approaches to Late Gothic Art	Art of the late-Gothic style, ca. 1350-1525, considered within religious, social, economic, and political contexts. Requires research or reading project.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	522	Sixteenth-Century Italian Art	Critical study of painting, sculpture, and architecture in 16th-century Italy in its religious and historical context.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	528	Eighteenth-Century Art in Europe	Critical study of European art from the late Baroque to the early years of Neoclassicism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	530	Art of Spain and New Spain	Critical study of architecture, painting, and sculpture from 1500 to 1800.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student. Students who have credit for ARS 430, may not enroll in ARS 530
ARS	532	Art, Politics, and Patronage, 1770-1850	Critical analyses of political events in Europe. Examines issues of patronage, art as propaganda. Impact of war and revolution on visual arts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	534	Studies in Modern European Art, 1850-1914	Critical study of visual arts using primary source material from mid-19th century to WWI within philosophical, socioeconomic, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours must be greater than or equal to 108; Must be a Senior or a Post Bacc Undergraduate or be a Graduate Student. Students who have credit for ARS 434, may not enroll in ARS 534
ARS	542	Critical Issues in American Painting	Explores themes and social issues in American art with a critical study of American painting from the 18th century to 1850.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	562	Art of Ancient Mesoamerica	Critical study of art and architecture of Mexico and Maya areas before Spanish contact.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	565	Native Art of North America	Critical examination of Native American art within culture, prehistory to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	574	Studies in Japanese Art	Critical examination of the nature and history of Japanese art, its rich heritage and its indebtedness to foreign sources.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	575	Approaches to Chinese Painting	Critical history of Chinese painting from Eastern Chou to 1911. Emphasis on masters, regional developments, and conceptual underpinnings.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

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ARS	585	Women in the Visual Arts	Historical study of art by women in various media; related social, political, educational issues; representation of women in art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Art	1-12		
ARS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		
ARS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-15		
ARS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		
ARS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Art	1-15		
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARS	438-W	Art of the 20th Century I	Developments and directions in art between 1900 and World War II.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ARS	439	Art of the 20th Century II	Art since World War II, with consideration of new concepts and experimentation with media and modes of presentation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
ARS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ARS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	453	Experimental Printmaking	Alternative techniques and methods to traditional approaches to printmaking. May be repeated for credit. Fee.	N	STO	Y	OPT	Herberger College of the Arts	School of Art	3.		
ART	111	Drawing I	Fundamental, technical, and perceptual skills using common drawing media and their application to pictorial organization. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	111	Drawing I	Fundamental, technical, and perceptual skills using common drawing media and their application to pictorial organization. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	112	2-D Design	Fundamentals of pictorial design. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	112	2-D Design	Fundamentals of pictorial design. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	113	Color	Principles of color theory as related to the visual arts. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art Undergraduate student
ART	113	Color	Principles of color theory as related to the visual arts. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	115	3-D Design	Fundamentals of 3-D form. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art Undergraduate student
ART	115	3-D Design	Fundamentals of 3-D form. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ART	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	201	Photography I	Development of skills and techniques of black and white photography. Emphasis on camera work and darkroom procedures. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Co-requisite: ART 202
ART	202	Photography I Lab	fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	0.		Co-requisite: ART 201
ART	204	Photography II	Photography as an art medium with additional exploration into personal photographic aesthetics. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Art Undergraduate student; ART 101 or ART 201 with C or better
ART	211	Drawing II	Continued development of technical and perceptual skills. Emphasizes materials and pictorial content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	211	Drawing II	Continued development of technical and perceptual skills. Emphasizes materials and pictorial content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 112 with C or better
ART	214	Life Drawing I	Development of skill and expressiveness in drawing the basic form, construction, and gesture from the human figure. Lab. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	214	Life Drawing I	Development of skill and expressiveness in drawing the basic form, construction, and gesture from the human figure. Lab. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 112 with C or better
ART	223	Painting I	Fundamental concepts and materials of traditional and experimental painting media. Emphasizes preparation of painting supports, composition, and color. Lab. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 113 with C or better

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ART	223	Painting I	Fundamental concepts and materials of traditional and experimental painting media. Emphasizes preparation of painting supports, composition, and color. Lab. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	227	Watercolor I	Fundamental concepts, materials, and techniques of watercolor. Emphasizes problem solving, basic skills, composition, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 113 with C or better
ART	227	Watercolor I	Fundamental concepts, materials, and techniques of watercolor. Emphasizes problem solving, basic skills, composition, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 113 with C or better
ART	231	Sculpture I	Explores sculptural forms through concepts related to basic materials. Focus on studio production, safety, aesthetic criticism, and history of sculpture. 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; ART 111 and ART 115 with C or better; Pre- or Corequisite: ARA 110 (with C or better if completed)
ART	253	Introduction to Printmaking	Introduces basic monotype, intaglio, relief, and related techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 113 with C or better
ART	261	Ceramic Survey	Handforming methods, throwing on the wheel, decorative processes, and glaze application. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 112 and ART 115 with C or better
ART	272	Metalworking I: Introduction	Emphasizes metal fabrication. Basic techniques of cutting, piercing, forging, soldering, and forming. Not open to seniors. 6 hours a week. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; Maximum Junior standing; ART 112 and ART 115 with C or better
ART	274	Wood I	Fundamental woodworking techniques to produce creative functional 3-D objects. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	276	Fibers I	Explores traditional and contemporary materials and basic techniques related to fibers. Embroidery, feltmaking, dyeing, block printing, plaiting, 3-D structures. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; Maximum Junior standing; ART 112 and ART 115 with C or better
ART	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Art undergraduate student
ART	304	Advanced Photography	Interpretation and manipulation of light as a tool in the performance of expressive photography. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; Completed portfolio milestone (if required); ART 204 and (ART 101 or ART 201) with C or better
ART	305	Color Photography I	Applies color transparencies and prints to photographic art. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; Must have completed the portfolio milestone (if required); ART 204 and ART 101 or ART 201 with a C or better
ART	308	Digital Photographic Images I	Scanning, manipulation, refinement, and compositing of photographic images on the computer. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; Completed portfolio milestone (if required); ART 204 and (ART 101 or ART 201) with C or better
ART	311	Drawing III	Emphasizes composition, exploration of drawing media. 6 hours a week. Requires acceptance into the appropriate professional program or instructor approval. Contact your academic advisor in the School of Art for more information.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be Fine Arts student in professional program AND completed ART211 with a C or greater or be currently enrolled.
ART	311	Drawing III	Emphasizes composition, exploration of drawing media. 6 hours a week. Requires acceptance into the appropriate professional program or instructor approval. Contact your academic advisor in the School of Art for more information.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 211 with C or better
ART	314	Life Drawing II	Drawing from the model with greater reference to structural, graphic, and compositional concerns. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be Fine Arts student AND completed ART214 with a C or greater or be currently enrolled
ART	314	Life Drawing II	Drawing from the model with greater reference to structural, graphic, and compositional concerns. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student or completion of portfolio milestone; ART 214 with C or better
ART	323	Painting II	Development of competency in skills and expression. Assigned problems involve light, space, color, form, and content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student with portfolio; ART 223 with C or better
ART	325	Figure Painting	The human figure clothed and nude as the subject for painting in selected media.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART 314 and ART 323 with a grade of D or better
ART	327	Watercolor II	Explorations of personal expression in watercolor. Continued development of watercolor skills using traditional and experimental materials and techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	327	Watercolor II	Explorations of personal expression in watercolor. Continued development of watercolor skills using traditional and experimental materials and techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 227 with C or better
ART	331	Sculpture II	Continuation of ART 231 with an emphasis on metal fabrication as an expressive sculptural process. Techniques in welding, cutting and bending of metals and their aesthetics. 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student with portfolio completed; Pre- or Co-requisite: ARA 110 (with C or better if completed)
ART	332	Sculpture III	Explores diverse media with a focus on mold-making processes. Development of the sculpture portfolio. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART231 AND ART331 AND be an ART student
ART	333	Foundry Casting Methods	Fine art and techniques of metal casting: mold making, foundry safety, finishing techniques, application of patinas, and history of casting. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART231, ART331 and ART332 or be currently enrolled in ART332 and must be an Art student
ART	345	Visualization and Prototyping I	Studio/seminar introduces concepts of computer visualization, modeling, and rapid prototyping in an interdisciplinary manner.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Digital Art OR Intermedia student
ART	346	3-D Computer Imaging and Animation	3-D modeling and animation. Emphasizes concepts and fine arts applications. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.	CS	Prerequisites: Must be an ART student
ART	348	Animation Motion Studies	Principles and applications of 3-D animation for fine arts. Emphasizes animation techniques for expressive effects. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART346 or be currently enrolled in ART346 AND be an ART student

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ART	351	Intaglio I	Introduces concepts and techniques of intaglio processes, including non-acid and acid techniques such as drypoint, line etch, aquatint, photo etching; introduces multiple plate printing ala poupee wiping, chine colle, and basic color. Idea-generating exercises include visual signifiers of identity, democratic multiple, time and space, the disembodied gaze, and reconsidering beauty. Studio 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): ART 253 with C or better
ART	352	Lithography I	Monochromatic and color planographic printmaking utilizing stone and aluminum plate processes. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 with C or better
ART	354	Screen Printing I	Introduces paper, direct, and photographic stencil techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART253 AND be an ART student
ART	355	Printmaking as Photography	Introduces photographic principles and skills for photomechanical printmaking processes, including photosilkscreen, photolitho, and photoetching. 6 hours a week. Fee.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 with C or better
ART	360	Ceramic Throwing	Design analysis and production of functional pottery. Emphasis on throwing techniques, surface enrichment, and glaze application. 6 hours a week. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 261 with C or better
ART	363	Ceramic Clay-Glaze		N	LEC	N	CNV	Herberger Inst Design & Arts	School of Art	3.		
ART	364	Ceramic Handbuilding I	Search for form using handbuilding techniques. Kiln firing and related problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 with C or better
ART	365	Ceramic Handbuilding II	Continuation of ART 364 with an additional focus on large-scale works, surface treatments, and glaze decoration with related kiln firing applications. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 and ART 364 with C or better
ART	372	Metalworking II	Metal fabrication techniques including surface embellishment. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 with C or better
ART	373	Metalworking III	Compression, die, and stretch forming as applied to hollow form construction. Hot and cold forging techniques as applied to smithing. 6 hours a week. fee	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 with C or better
ART	374	Wood II	Individual and directed problems in wood related to the production of unique functional art objects. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 274 with C or better
ART	376	Woven Structures I	Explores weaver- and loom-controlled structures with an emphasis on formal issues, historic precedence, and contemporary investigations. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 276 with C or better
ART	377	Surface Design	Application of dyes and pigments on cloth exploring techniques, formal issues, and content. Cyanotype, monoprinting, painting on silk, resists, stenciling. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 276 with C or better
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Prerequisites: Must be an ART student
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	401	Nonsilver Photography	Recognition of the inherent characteristics of nonsilver processes and their use in communicating ideas. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART 304 with a grade of D or better
ART	403	Senior Photographic Projects	Technical and philosophical refinement of personal aesthetic with various photographic media. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 204 and (ART 101 or ART 201) with C or better
ART	404	Portraiture Photography	Photographing people. Critical discussions and slide lectures on issues in portraiture. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 204 and (ART 101 or ART 201) with C or better
ART	406	Photo Techniques	Camera and darkroom techniques with emphasis on creative control of the black and white print. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student and you must have a C or greater in ART204 AND ART101 or ART201
ART	407	View Camera	View camera and darkroom techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student and you must have a C or greater in ART204 AND ART101 or ART201
ART	408	Digital Photographic Images II	Develops personal aesthetic in digital photography. May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART 308 with a grade of D or better
ART	409	Photographic Exhibition	Care of photographic prints, print presentation, and exhibition. Practical experience in gallery operations. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	410	Landscape Photography	Photographing landscapes. Critical discussion and presentations on issues in landscape photography. May be repeated for credit. 6 hours a week.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	411	Drawing IV	Visual and intellectual concepts through problem solving and independent study. Emphasis on the individual creative statement. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: must have completed ART 211 with a C or greater and be enrolled in one of a list of Art plans/majors and have completed ART 311 with a C or greater or be currently enrolled
ART	411	Drawing IV	Visual and intellectual concepts through problem solving and independent study. Emphasis on the individual creative statement. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 211 and ART 311 with C or better
ART	414	Life Drawing III	Various media and techniques on an advanced level. The human figure as an expressive vehicle in various contexts. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ART 314
ART	414	Life Drawing III	Various media and techniques on an advanced level. The human figure as an expressive vehicle in various contexts. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ART 314
ART	415	Art Anatomy	Study of human anatomical structures as applied to the practice of figure-oriented art. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	4.		Prerequisites: Art student; ART 214 with C or better
ART	423	Painting III	May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 223 and ART 323 with C or better

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ART	425	Advanced Figure Painting	The human figure clothed and nude as the subject for painting in selected media. May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 223, ART 323 and ART 314 with C or better
ART	427	Advanced Watermedia	Continuation of ART 327. Advanced techniques, concepts, and methods with watercolor and other water-based media on paper. 6 hours a week. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	427	Advanced Watermedia	Continuation of ART 327. Advanced techniques, concepts, and methods with watercolor and other water-based media on paper. 6 hours a week. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be Fine Arts student in professional program; must have completed ART227 with a C or greater; completed ART327 with a C or greater or be currently enrolled
ART	431	Special Problems in Sculpture	Development of a personal approach to sculpture. Emphasis on form, individual problems, and related color technology. Professional practices and presentation. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231, ART 331 and 332 with C or better
ART	432	Neon Sculpture	Techniques for creating neon in an art context. Glass tube bending and fabrication. Construction of artworks utilizing light-generating gasses. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	435	Foundry Research Methods	Research in foundry techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	436	Architectural Sculpture	Sculptural concepts as related to architecture and other man-made environments. Scale drawing, models, and relief sculpture. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231, ART 331 and ART 332 with C or better
ART	437	Film Animation	Production of short 16mm films that feature articulated sculptural objects, models, dolls, puppets, and graphics through the use of single-frame filming techniques. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	438	Experimental Systems in Sculpture	Simple electrical and mechanical systems that can be utilized in the context of studio art and installations. Requires active production of studio artworks. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	439	Intermedia Studio	Exploring visual effects by combining traditional and nontraditional methods, techniques, and concepts. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must be an ART student
ART	440	New Media Concepts	Continued experiments with new media and interdisciplinary concerns in art. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Corequisite(s): ART 441
ART	441	Video Art	Utilizing video and audio equipment essential to the production of broadcast quality video art. 2 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1.		Pre-requisite: Art portfolio completed; Co-requisite ART 440
ART	442	Folk/Outsider Art	Explores ideas, attitudes, and art of contemporary self-taught, visionary, and outsider artists. Research and studio practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must be an ART student
ART	443	Intermedia Performance	Experimental, conceptual, and interdisciplinary studio art with emphasis on performance and new media practices. May be repeated once for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Art student
ART	449	Computer Animation and Video	Integrates 3-D fine arts animation with video and compositing. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 346 and ART 348 with C or better
ART	450	Computer Animation and Audio	Integrates audio with 3-D animation for fine arts applications. Includes compositing and effects. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 346, ART 348 and ART 449 with C or better
ART	451	Advanced Intaglio	Gives students the opportunity to further develop their skills with intaglio printmaking techniques. Primary areas of research include image development, multiple plate and color printing. Additional techniques include lift grounds, spit bite aquatint, white ground, and viscosity printing. Develops sharper critical responses, both aesthetically and conceptually, to their own work, as well as the work of other artists. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART 351 with C or better or currently enrolled
ART	452	Advanced Lithography	Continuation of ART 352. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student or Completed the portfolio milestone; ART 253 and ART 352 with C or better
ART	454	Advanced Screen Printing	Continuation of ART 354. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 and ART 354 with C or better
ART	455	Advanced Photo Processes for Printmaking	Continued study of photomechanical techniques and applications to printmaking or photographic processes. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student or Completed the portfolio milestone; ART 253 and ART 355 with C or better
ART	456	Fine Printing and Bookmaking I	Letterpress printing and typography as fine art. Study of history, alphabets, mechanics of hand typesetting, presswork, and various forms of printed matter. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART253
ART	457	Fine Printing and Bookmaking II	Continuation of ART 456. Bookbinding, book design and printing, advanced typography, theory, and presswork. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 and ART 456 with C or better
ART	458	Papermaking	History, theory, demonstrations, sheet forming, collage treatments, and 3-D approaches. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART253
ART	459	Monoprinting	Nonmultiple printed image using a variety of technical approaches. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART student or Completed the portfolio milestone; ART 253 with C or better
ART	460	Ceramic Clay	Research into various clay body formulations, local natural materials, slip glazes, and engobes. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Art student AND you must have a C or greater in ART261 AND ART360 AND ART364(or be currently enrolled in ART360 & ART364) AND
ART	463	Ceramic Glaze	Glaze calculation and formulation using various glaze colors and surfaces. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 261 and ART460 with C or better

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ART	466	Special Problems in Ceramics	Emphasis on personal expression within structure of seminars, critiques, and studio work. Professional methods of presentation/documentation of work. 6 hours a week. May be repeated for credit. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 and ART 364 with C or better
ART	470	Computer Animation Portfolio	Production of videotape and CD 3-D animation portfolios for fine arts and industry integrating animation, video, and audio. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.	CS	Prerequisites: You must be an ART student AND you must have a C or greater in ART346 AND ART348 AND ART449(or be currently enrolled in ART348& ART449) AND
ART	472	Metalworking IV	Forging, forming, and surface metalworking techniques with a focus on personal statements and craftsmanship. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 and ART 372 with C or better
ART	473	Metalworking: Special Problems	Special problems in metalworking related to techniques and individual directions. 6 hours a week. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 and ART 373 with C or better
ART	474	Advanced Wood	Extended experience and advanced techniques in the use of wood to create functional works of art. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 274 and ART 374 with C or better
ART	476	Woven Structures II	Emphasizes personal expressions and continues technical exploration in woven structures. May be repeated for credit. 6 hours a week. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 276 and ART 376 with C or better
ART	477	Printed Textiles	Techniques for screen printing on fabric exploring pattern as a compositional element. Various stencil methods including photographic processes. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 276 and ART 377 with C or better
ART	478	Advanced Surface Design	Emphasis on personal expression with advanced problems in stitch resist, arashi shibori, transfers, indigo, vat and disperse dyes, and pigments. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART276 AND ART377 AND ART447
ART	479	3-D Fibers	Explores traditional and nontraditional 3-D fiber techniques and media. Discussion, research, and critiques augment technical demonstrations. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisite: Art student
ART	492	Honors Directed Study		N	STO	N	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ART	493	Honors Thesis		N	STO	N	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Prerequisites: You must be an Honors student
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Prerequisites: Must be an ART student
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisite: Art student
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		
ART	530	Digital Compositing	Fine arts digital compositing of computer animation, video, and video editing of composites with audio. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	540	Digital Motion Studies	Fine arts digital motion studies using computer animation and video. Studio. Fee. Prerequisite: ART 346 or instructor approval. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	551	Advanced Intaglio	Gives students the opportunity to further develop their skills with intaglio printmaking techniques. Primary areas of research include image development, multiple plate and color printing. Additional techniques include lift grounds, spit bite aquatint, white ground, and viscosity printing. Develops sharper critical responses, both aesthetically and conceptually, to their own work, as well as the work of other artists. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Your total Earned Hours must be greater than or equal to 108 AND Academic Level must be Senior or Post Bac Undergrad OR you must be a Non Degree Grad or in any Grad program
ART	582	Art Research	Independent study research using classroom facilities and supplies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ART	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

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ART	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ART	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	621	Studio Problems	Advanced study. 6 hours a week each section. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ART	682	MFA Exhibition Research	MFA exhibition practicum using classroom facilities and supplies. Can be used in place of ART 680.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	1-6		
ART	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ART	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AS	150	Animal Husbandry		Y	LEC	Y	CNV	Ira A. Fulton Engineering	W. P. Carey School of Business	3.		
ASB	100	Introduction to Global Health	Current global health crises, challenges; tools for describing health and disease; ecological, cultural, social, historical, political-economic factors; comparative health systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
ASB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	200	Food and Culture	Uses the case of food to explore how culture shapes human well-being, including the impact of political-economic systems on what we have and chose to eat.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & C	Pre-requisites: Students who have credit for SSH 200, may not enroll in ASB 200. Must have ENG 101, 105, 107, or ENG 111.

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ASB	202	Ethnic Relations/U.S.	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H & C	
ASB	210	Sex, Marriage, and Evolution	Examines the sexual nature and behavior of humans from both a biological and an anthropological point of view.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G	
ASB	222	Buried Cities and Lost Tribes	Archaeology through its most important discoveries: human origins, Pompeii, King Tut, the Holy Land, Southwest Indians, and methods of field archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	223	Buried Civilizations of the Americas	Archaeology through examination of several ancient civilizations of Meso-, South, and North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	230	Beginning Culture Theory	Bridges ASB 102 and upper-division courses; introduces cultural theory and fosters independent thinking, critical analysis, communication, and adaptability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	231	Arch Field Methods	Excavation of archaeological sites and recording and interpretation of data. Includes local field experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	
ASB	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G	
ASB	252	Anthropology of Sports	Cross-cultural examination of symbolic and social dimensions of sports past and present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
ASB	301	Global History of Health	Examines disease and health transitions in broadest context of human history, from primate ancestors to hunter-gatherers, to transcontinental contact, colonialism, industrialization, urbanization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit in SSH 301, you may not enroll in ASB 301
ASB	302	Ethnographic Field Study in Mexico	Fieldwork study of cultural adaptation, Mexican culture, United States-Mexican cultural conflict, ethnographic research methods, and local culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	
ASB	310	Precolonial Africa	Surveys social, economic, political, cultural, and economic institutions and civilizations of Africa before European colonialism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	311	Principles of Social Anthropology	Comparative analysis of domestic groups and economic and political organizations in primitive and peasant societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	314	Comparative Religion	Origins, elements, forms, and symbolism of religion; a comparative survey of religious beliefs and ceremonies; the place of religion in the total culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	319	The North American Indian	Archaeology, ethnology, and linguistic relationship of the Indians of North America. Does not include Middle America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	320	Indians of Arizona	Traditional cultures and the development and nature of contemporary political, economic, and educational conditions among Arizona Indians.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	321	Indians of the Southwest	Cultures of the contemporary Indians of the southwestern United States and their historic antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & H & C	
ASB	322	Peoples of Mesoamerica	Indigenous, mestizo, and national cultures, rural and urban peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	324	Peoples of the Pacific	Peoples and cultures of Oceania focusing particularly on societies of Melanesia, Micronesia, and Polynesia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	325	Peoples of Southeast Asia	Cultural-ecological perspective on the peoples of mainland and insular Southeast Asia. Subsistence modes, social organization, and the impact of modernization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	326	Human Impacts on Ancient Environments	World survey of successful and unsuccessful ancient societies and their impacts on the environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	
ASB	327	Action Anthropology	Explores contemporary issues and problem solving in Cuna, Micronesia, Mayan, and U.S. Latino communities, through applied anthropology and community initiatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	330	Principles of Archaeology	Methods and theories for reconstructing and explaining the lifeways of prehistoric peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: ASB 222 or ASB 223, with a grade of D or better
ASB	335	Prehistory /Southwest	Anthropological understandings of major cultural processes and events in the prehistory of the American Southwest using evidence from archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H & C	
ASB	337	Pre-Hispanic Civilization of Middle America	Preconquest cultures and civilizations of Mexico. The Aztecs, Mayas, and their predecessors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	338	Archaeology of North America	Origin, spread, and development of the prehistoric Indians of North America up to the historic tribes. Does not include the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites: ASB 222 or ASB 223, with a grade of D or better

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ASB	344	Technology and Society	Development of technology in relation to society, work, science, the environment, public health, and cultural values related to social change.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	350	Anthropology and Art	Art forms of people in relationship to their social and cultural setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	351	Psychological Anthropology	Approaches to the interrelations between the personality system and the sociocultural environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	(HU or SB) & G	
ASB	355	Shamanism, Healing, and Consciousness	World views, practices, and roles of shamans and traditional and contemporary healers; explanatory biopsychological models of consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	HU or SB	
ASB	361	Pleistocene Archaeology	Biosocial evolution in the Pleistocene, emphasizing technological achievements and the relationship between technology and environment in western Europe, sub-Saharan Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	H	Pre-requisites: ASB 222 or ASB 223, with a grade of D or better
ASB	362	The Neolithic Revolution and its Consequences	Surveys models for the appearance of food production in the Old World, and its consequences for emergent social complexity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	H	Pre-requisites: ASB 222 or ASB 223, with a grade of D or better
ASB	366	African Archaeology: Precolonial Urban Culture	Overview of African civilization from the last 10,000 years up to 1850 via archaeological, documentary, and oral data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G & H	
ASB	368	Prehistoric and Historic Hunter-Gatherers	Studies known hunting and gathering societies with the goal of developing approaches to understanding past hunting and gathering societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASB 222 or ASB 223, with a grade of D or better
ASB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	400	Cultural Factors in International Business	Anthropological perspectives on international business relations; applied principles of cross-cultural communication and management; regional approaches to culture and business.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	402	Visual Anthropology	Explores visual anthropology as a method for social documentation, and as a way to interpret cultural ways of seeing. Brings together anthropology, fine art, and art history students to exchange ideas about how we create, interpret, and communicate visual meanings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	410	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	Pre-requisites: ASB 100 (or SSH 100) or ASB 102 with D or better
ASB	412	History of Anthropology	Historical treatment of the development of the culture concept and its expression in the chief theoretical trends in anthropology between 1860 and 1950.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L or SB	Pre-requisites: ASB 102 with a D or better
ASB	416	Economic Anthropology	Economic behavior and the economy in preindustrial societies; description and classification of exchange systems; relations among production, exchange systems, and other societal subsystems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L or SB	
ASB	417	Political Anthropology	Comparative examination of the forms and processes of political organization and activity in primitive, peasant, and complex societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	
ASB	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	430	Social Simulation	Introduces computer simulation and agent-based modeling to study social systems. Credit is allowed for only ASB 430 or CPI 430.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	CS	
ASB	443	Cross-Cultural Studies in Global Health	Direct investigations of society, ecology, and health in international settings.	N	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-6	SB & G	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit for SSH 403, you may not enroll in ASB 443
ASB	452	Community Partnerships for Global Health	Supervised community-based activities relevant to a global perspective on contemporary U.S. health. Addresses community-identified issues using appropriate methodologies.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9	SB	Pre-requisites:SSH 400 or ASB 440 with a grade of D or better, or currently enrolled. If you have credit for SSH 402, you may not sign up for ASB 452
ASB	455	Senior Seminar in Global Health	Students create health solutions, integrating theoretical, methodological, ethical, and experiential learning related to the global health major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	462	Medical Anthropology: Culture and Health	Role of culture in health, illness, and curing; health status, provider relations, and indigenous healing practices in United States ethnic groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	C	
ASB	463	Political Ecology of the Border	Using a political ecology approach, focuses on the creation of border communities of Southwest North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	464	The Ethnography of Mexican Border Rural Settings	Focuses on the internal characteristics of a selected Mexican rural border towns and villages; analyzes the dynamics of development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	466	Peoples and Cultures of Africa	Surveys African peoples and their cultures, external contact, and changes. Meets non-Western requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G & H	
ASB	471	Introduction to Museums	History, philosophy, and current status of museums. Explores collecting, preservation, exhibition, education, and research activities in different types of museums. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	Pre-requisites: ASB 102; ASM 104

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ASB	480	Principles of Linguistics	Descriptive and historical linguistics. Surveys theories of human language, emphasizing synchronic linguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	481	Language and Culture	Applies linguistic theories and findings to nonlinguistic aspects of culture; language change; psycholinguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: ASB 102 with a D or better
ASB	483	Sociolinguistics and the Ethnography of Communication	Relationships between linguistic and social categories; functional analysis of language use, maintenance, and diversity; interaction between verbal and nonverbal communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	485	U.S.-Mexico Border in Comparative Perspective	Explores the multicultural and social dimensions of communities along the U.S.-Mexico border, emphasizing social organization, migration, culture, and frontier ideology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	489	Doing Research in Anthropology	Research process learned through critical evaluation of literature, hands-on analysis and interpretation of data, and scientific writing Rotating topics. May be repeated for credit.	N	LAB	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Must be an Honors student
ASB	493	Honors Thesis	Honors Thesis	N	RSC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6	L	Pre-requisites: Must be an Honors student
ASB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		Pre-requisites: Must be an Honors student
ASB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
ASB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	DIS	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
ASB	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	501	Applied Medical Anthropology	Overview of anthropology's applications in medicine and its adaptations to U.S. ethnic populations. Requires research project in medical setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	502	Health of Ethnic Minorities	Prevalence of illness, risk factors, health ecology, and medical and indigenous treatments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	503	Advanced Medical Anthropology	Theory in medical anthropology and cross-cultural studies that illustrate particular theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	504	Ethnic Relations	Structural processes of intergroup relations, methods for investigating psychocultural dimensions of ethnicity with focus upon U.S. ethnic groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	506	Gender, Emotions, and Culture	Relationships among gender and emotion across cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	508	Colonial Rule and the African Experience	Impact of European colonial rule on the shaping of African consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	510	Health: Social and Biocultural Theories	Comparative and critical approaches to complexities of health, drawn from anthropology and related fields Focuses on theories that address how social and cultural factors shape human health.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	511	Ethics in Health Social Science Research	Ethics and social justice issues in community-based health research relevant to health social science, including informed consent, community involvement, control, advocacy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	512	Social Science Applications in Community Health	Supervised community-based activities relevant to improvement of health through application of social science theory.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9		
ASB	513	Research Design and Proposal Writing in Health Social Science	Research design, piloting, and proposal writing for social scientists conducting health research.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	525	Introduction to Material Culture	Considers how objects embody social relationships and therefore cultural meanings. Seminar explores theories that give insight into social processes such as exchange, consumption, and identity.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	529	Culture and Political Economy	Origin and spread of Western capitalism and its impact on non-Western societies. Utilizes ethnographic and historical case studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		

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ASB	530	Ecological Anthropology	Relations among the population dynamics, social organization, culture, and environment of human populations, with special emphasis on hunter-gatherers and extensive agriculturalists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	531	Anthropology of Development	Theories of development and the human and environmental consequences of development, with particular emphasis on rural Southeast Asia.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	532	Graduate Field Anthropology	Independent research on a specific anthropological problem to be selected by the student in consultation with the staff. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	2-8		
ASB	533	Sustainable Urban Dynamics.	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites:If fyou have received credit for SOS 532, you may not enroll in ASB 533
ASB	536	Ethnohistory of Mesoamerica	Indigenous societies of southern Mexico and Guatemala at Spanish contact and their postconquest transformation. Emphasis on the Aztec Empire.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	537	Topics in Mesoamerican Archaeology	Explores changing organization of pre-Columbian civilizations in Mesoamerica through interpretive issues, such as regional analysis, chiefdoms, urbanism, and exchange.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	540	Scholarly Inquiry in Anthropology	Basic issues and concepts in anthropology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	541	Theory in Sociocultural Anthropology	Basic issues and concepts in sociocultural anthropology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	542	Archaeology of Small-Scale Societies	Approaches to small-scale (i.e., hunter-gatherer and tribal) societies, archaeological method and theory, ethnography, models of human and cultural evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	543	Method and Theory of Archaeology II	Covers concepts of social complexity along with economy, demography, and social dynamics, followed by archaeological research design.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	544	Settlement Patterns	Spatial arrangement of residences, activity sites, and communities over landscape. Emphasizes natural and cultural factors influencing settlement patterns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	546	Pleistocene Prehistory	Development of society and culture in the Old World during the Pleistocene epoch, emphasizing technological change through time and the relationship of people to their environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	547	Issues in Old World Domestication Economies	Archaeological evidence for transitions in Old World subsistence economies from hunting and gathering to dependence on domesticated plants and animals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	549	Chiefdoms	Examines archaeological evidence of chiefdoms, distinguished by hereditary leadership and non-bureaucratized decision-making elite, to illustrate emergence of social complexity, inequality.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	550	Economic Archaeology	Prehistoric economies in hunter-gatherer, tribal, and complex societies. Covers subsistence strategies, craft production and specialization, and exchange.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	551	Prehistoric Diet	Critical review of techniques for recovering dietary information and theoretical models concerned with explaining diet and nutrition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	555	Complex Societies	Examines structural variations in hierarchically organized societies, along with origins, dynamics, and collapse.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	558	Mortuary Practices and Cultural Analysis	Critical overview of theory and methods of reconstructing lifeways of past peoples with ethnographic/archaeological data and a bioarchaeological perspective.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	559	Archaeology and the Ideational Realm	Postprocessual and other views concerning relevance of mental phenomena for understanding sociocultural change. Various approaches to inferring prehistoric meanings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	560	Archaeology of the Social Realm.	Applies social theory to archaeological study of societies of the past. Includes practice theory, hierarchy, space and place, material culture.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	563	Hunter-Gatherer Adaptations	Evolution of prehistoric hunter-gatherer societies in the Old and New Worlds from the most ancient times through protohistoric chiefdoms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	567	Southwestern Archaeology	Broad coverage of Southwestern cultural developments focusing on current debates and rigorous use of archaeological data in making cultural inferences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	568	Intrasite Research Strategies	Research issues within a single site context. Topics include quantitative spatial analysis, site definition, sampling, distributional analysis, and substantive interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		

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ASB	570	Immigration to the U.S.	Covers some of the major topics and issues in immigration studies with a focus on the United States. Uses both theoretical works dealing with the causes and consequences of international migration and ethnographic accounts of actual immigrant lives. Broadly interdisciplinary and incorporates perspectives from sociology, political science, economics, and other fields; emphasizes anthropological approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	571	Museum Principles	History, philosophy, and current status of museums. Explores collecting, preservation, exhibition, education, and research activities in different types of museums.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	572	Museum Collection Management	Principles and practices of acquisition, documentation, care, and use of museum collections; registration, cataloging, and preservation methods; legal and ethical issues. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	573	Museum Administration	Formal organization and management of museums, governance, personnel matters, fund raising and grantsmanship, legal and ethical issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	574	Exhibition Planning and Design	Exhibition philosophies and development; processes of planning, designing, staging, installing, evaluating, and disassembling temporary and long-term exhibits.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	575	Computers and Museums	Basics of museum computer application; hardware and software; fundamentals of database management; issues of research, collections management, and administration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	576	Museum Interpretation	Processes of planning, implementing, documenting, and evaluating educational programs in museums for varied audience--children, adults, and special interest groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	577	Principles of Conservation	Preservation of museum objects: nature of materials, environmental controls, and causes of degradation; recognizing problems, damage, and solutions; proper care of objects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	579	Critical Issues in Museum Studies	Current debates of museum practice from an anthropological perspective. Addresses issues of collection, presentation, authenticity, and authority.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		

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ASB	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASB	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(HU or SB) & G	
ASB	311-W	Principles of Social Anthropology	Comparative analysis of domestic groups and economic and political organizations in primitive and peasant societies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G & H	
ASB	319-W	Indigenous Peoples of North America	Ethnology of the range of Native North American Indian cultural history. Comparative analysis of historical and contemporary issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
ASB	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.

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ASB	340	Migration and Culture	Examines migration and culture embedded in a transnational field of social, economic, and political processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	346	Marriage and Family Diversity	Social, economic, and cultural factors that shape family diversity in relation to generational and gender dynamics within the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	350-W	Anthropology and Art	Art forms of people in relationship to their social and cultural setting.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(HU or SB) & G	
ASB	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
ASB	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
ASB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
ASB	440	Women in the Global Factory	Examines the impact of Third World women's incorporation into the new global division of labor in the late 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	441	Sexuality and Culture	Uses a global, comparative approach to examine the cultural and historical construction of sexualities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	442	Urban Anthropology	Issues in understanding urban culture and social space from interdisciplinary anthropological perspective. May involve fieldwork. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
ASB	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	447	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	493	Honors Thesis	Honors Thesis	N	RSC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
ASB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
ASB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
ASB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
ASB	202	Ethnic Relations/U.S.	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
ASB	222	Buried Cities and Lost Tribes	Archaeology through its most important discoveries: human origins, Pompeii, King Tut, the Holy Land, Southwest Indians, and methods of field archaeology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
ASB	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
ASB	321	Indians of the Southwest	Cultures of the contemporary Indians of the southwestern United States and their historic antecedents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H & C	
ASB	335	Prehistory /Southwest	Anthropological understandings of major cultural processes and events in the prehistory of the American Southwest using evidence from archaeology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	(HU or SB) & G	
ASC	301	Contextual Uses of Algebra in Technology	Uses algebra to solve real-world technological problems using currently available computer software.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-requisites: Polytechnic BAS student
ASC	302	Contextual Uses of Geometry in Technology	Uses geometrical concepts to solve real-world technological problems using currently available computer software.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ASC	303	Contextual Uses of Trigonometry in Technology	Topics for close examination in selected dramatic and/or nondramatic works. May be repeated for credit when topics vary.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ASC	315	Numeracy in Technology	Contextual uses of mathematics in applied sciences. Emphasizes using mathematical methodologies to solve technology-related problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	
ASC	325	Physical Sciences in Technology	Physical systems and their interrelationships on technology systems. Real-world applications of physical systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
ASC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ASC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ASC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ASE	549	Stat Applicatns Engr		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Arizona State University	3.		
ASE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		Pre-requisites: Must be a non degree undergraduate student with less than or equal to 25 total earned hours
ASE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
ASE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
ASE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6	L	Pre-requisites: Must be an Honors student
ASE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		
ASE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
ASE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
ASE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASM	104	Bones, Stones, and Human Evolution	Physical anthropology and archaeology. Evidence and processes of human evolution and of culture change. Primates. Fossil hominids and their tools. Race, variation, and heredity. Environment and human biology. Prehistoric culture and society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SB or SG	
ASM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ASM	246	Human Origins	History of discoveries and changing interpretations of human evolution. Earliest ancestors to emergence of modern humans. Humanity's place in nature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	275	Forensic Anthropology	Discusses the role of the forensic anthropologist in medico-legal investigations involving skeletonized human remains. Includes forensic recovery techniques, identification of decedents through skeletal and dental analysis, and reconstructing the crime scene through analysis of trauma patterns. Covers the legal aspects of forensic practice and considers historical case studies and the contributions forensic anthropologists make to mass disaster investigations and human rights abuses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
ASM	301	Peopling of the World	Reviews all evidence for human dispersal during the last 100,000 years, origins of language, cultures, races, and beginnings of modern humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites:ASM 104 with a grade of D or better
ASM	332	Life and Death in Ancient Egypt	Reveals ancient Egyptian life through recent research in archaeology and physical anthropology on cemeteries, tombs, and the dead themselves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: ASB 222
ASM	338	Anthropological Field Session	Anthropological field techniques, analysis of data, and preparation of field reports. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	2-8		
ASM	341	Human Osteology	Osteology, human paleontology, and osteometry. Description and analysis of archaeological and contemporary human populations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASM 104
ASM	342	Human Biological Variation	Evolutionary interpretations of biological variation in living human populations, with emphasis on anthropological genetics and adaptation. Nutrition and disease and their relation to genetics and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	
ASM	343	Primatology	Evolution and adaptations of nonhuman primates, emphasizing social behavior. Includes material from fossil evidence and field and lab studies in behavior and biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104 with a D or better
ASM	344	Fossil Hominids	The fossil evidence for human evolution, emphasizing the concepts and methods for reconstructing the past.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	H	Pre-requisites:ASM 104 with a grade of D or better
ASM	345	Disease and Human Evolution	Interaction of people and pathogens from prehistoric times to the present, with emphasis on disease as an agent of genetic selection.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104, or BIO 100, or BIO 187, or BIO 188, with a D or better
ASM	348	Social Issues in Human Genetics	Moral and social implications of developments in genetic science, particularly as they affect reproduction, medicine, and evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASM	365	Laboratory Methods in Archaeology	Techniques of artifact analysis. Basic archaeological research techniques; methods of report writing. May be repeated for credit for total of 8 hours.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASM 104 with a D or better

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ASM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	401	Health and Human Biology	Health and biology in contexts of human evolutionary history, biological and cultural variation, lab-based health status assessments, core concepts of human variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASB 100 (or SSH 100) and ASM 104 with a D or better
ASM	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: Students who have credit for SSH 414, or SOS 414, may not enroll in ASM 414; Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
ASM	424	Dynamic Modeling in Social and Ecological Systems	Introduces the development and use of dynamic mathematical models to study social and ecological phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better; Students who have credit in SOS 424 or BIO 424, may not enroll in ASM 424
ASM	435	Archaeological Pollen Analysis	Theory, methodology, and practice of pollen analytic techniques. Compares uses in botany, geology, and archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	446	Principles of Human Genetics	Molecular and cellular analysis of the human genome.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	Pre-requisites:Completed BIO 340 or ASM 301 with a C or better; If you have credit in ASM 446, you may not enroll in BIO 446
ASM	448	Geoarchaeology	Geologic context relevant to archaeological research. Topics include sediments, deposition environments, soils, anthropogenic and biogenic deposits, and quaternary chronology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASB 222 (or 223), or GLG 101 (or 103), or GPH 111, with a grade of D or better
ASM	450	Bioarchaeology	Surveys archaeological and physical anthropological methods and theories for evaluating skeletal and burial remains to reconstruct biocultural adaptation and lifeways.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: ASM 104
ASM	452	Dental Anthropology	Human and primate dental morphology, growth, evolution, and genetics. Within- and between-group variation. Dental pathology and behavioral-cultural-dietary factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	Pre-requisites: ASM 104 with a D or better
ASM	454	Comparative Primate Anatomy	Functional anatomy of the cranial, dental, and locomotor apparatus of primates, including humans, emphasizing the relation of morphology to behavior and environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ASM	455	Primate Behavior Laboratory	Instruction and practice in methods of observation and analysis of primate behavior. Discusses the relationship between class work on captive animals and field techniques for studying free-ranging groups.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	Pre-requisites:ASM 343 with a grade of D or better
ASM	456	Infectious Disease and Human Evolution	Study of infectious disease and humanity, using evidence from anthropology, history, medicine, and ancient skeletons.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 345 with D or better
ASM	459	Forensic Anthropology	Applies anthropology, primarily human osteology, to legal questions, including individual identification, crime scenes, forensic reports, police work, and court testimony.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	460	Human Growth and Development: An Evolutionary Perspective	How growth and development influences human variation; stages of human life; evolution through the fossil record; genetic, environmental, and biocultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104 with C or better; ASM 341, ASM 342, ASM 344, ASM 345 or ASM 348
ASM	465	Quantification and Analysis for Anthropologists	Statistical and quantitative strategies for envisioning and exploring archaeological, physical anthropological, bioarchaeological, and socialcultural data. Univariate and bivariate methods. A basic understanding of algebra is necessary to be successful in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	CS	
ASM	472	Archaeological Ceramics	Analysis and identification of pottery wares, types, and varieties. Systems for ceramic classification and cultural interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Must be an Honors student
ASM	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6	L	Pre-requisites: Must be an Honors student
ASM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		Pre-requisites: Must be an Honors student
ASM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
ASM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		

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ASM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	525	Primate Paleobiology	Seminar-based survey of primate evolution, focusing on comparative biology of the extant primates and the fossil record through the Miocene.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	530	Paleoanthropology	Seminar-based in-depth study of the fossil record of human evolution and its geological, environmental, and phylogenetic contexts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	543	Primateology	Advanced study of nonhuman primate behavioral adaptations, emphasizing comparative sociality, incorporating data on behavior and biology from field and captivity.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	546	Principles of Human Genetics	Examines human molecular genetics from an evolutionary perspective, particularly analysis, current debates, the Human Genome Project, disease, ethics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	548	Geoarchaeology	Geologic context relevant to archaeological research. Topics include sediments, deposition environments, soils, anthropogenic and biogenic deposits, and quaternary chronology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	555	Advanced Human Osteology	Lab and field techniques in dealing with the human skeleton. Emphasizes preparation, identification, radiography, sectioning, microscopy, and data processing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	559	Forensic Anthropology	Applies anthropology, primarily human osteology, to legal questions, including individual identification, crime scenes, forensic reports, police work, and court testimony.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	560	Human Growth and Development: An Evolutionary Perspective	How growth and development influences human variation; stages of human life; evolution through the fossil record; genetic, environmental, and biocultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	565	Quantitative Archaeology	Formal methods of structuring, codifying, and analyzing data for archaeological problems. Designing research to yield data amenable to productive analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	566	Advanced Topics in Quantitative Archaeology	Archaeological issues associated with quantitative analysis, e.g., Bayesian and Monte Carlo approaches, simulation, diversity. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 565 with a D or better. Graduate student only
ASM	568	GIS and Spatial Technologies in Anthropological Research	In-depth survey of spatial technologies in anthropological research, including GIS, spatial modeling, remote sensing, and image analysis and classification.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	573	Lithic Analysis	Analysis and interpretation of chipped stone artifacts. Focus on both techniques and underlying concepts and their application to real collections.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	579	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	611	Paleopathology	Explores patterns of disease manifested in the human skeleton and differential diagnosis of infectious, metabolic, neoplastic, congenital, and other conditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); ASM 555
ASM	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AST	111	Introduction to Solar Systems Astronomy	History, properties of light, instruments, study of solar system and nearby stars. For nonscience majors. Optional lab (AST 113). Both AST 111 and AST 113 or AST 114 must be taken to secure SQ general studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	112	Introduction to Stars, Galaxies, and Cosmology	Structure and evolution of stars, star clusters, galaxies, cosmology. For nonscience majors. Optional lab (AST 114). Both AST 112 and AST 113 or AST 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	113	Astronomy Laboratory I	Astronomical observations and experiments designed to help the student become familiar with the sky, telescopes, and astronomical measurements. Both AST 111 and 113 or AST 113 and 321 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	Pre/Co-requisite: AST 111 or AST 321
AST	114	Astronomy Laboratory II	Similar to AST 113, but material chosen to supplement AST 112 and 322. Fee. Both AST 112 and 114 or AST 114 and 322 must be taken to secure SQ General Studies credit	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	
AST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
AST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
AST	321	Introduction to Planetary and Stellar Astrophysics	Physical laws; celestial mechanics; properties of planets, the sun, and other stars; formation and evolution of stars and planetary systems. Both AST 113 and 321 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	322	Introduction to Galactic and Extragalactic Astrophysics	Evolved stars, introduction to relativity, galaxies and interstellar matter, structure and dynamics of galaxies, cosmology. Both AST 114 and 322 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	421	Astrophysics I	Selected astrophysical topics, including stellar evolution, star formation, interstellar medium, galactic structure, extragalactic astronomy, high-energy astrophysics, and cosmology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	422	Astrophysics II	Same range of astrophysical topics as for AST 421 but emphasizes different specific topics in a given year.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	492	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		Pre-requisites: Must be an Honors student
AST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6	L	Pre-requisites: Must be an Honors student
AST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
AST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-7		
AST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
AST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	521	Stars and Interstellar Medium I	Radiative transfer, atomic and molecular properties, stellar atmospheres, line profiles, nonlocal thermodynamic equilibrium, interstellar gas and dust, star formation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	522	Stars and Interstellar Medium II	Stellar structure, radiative transport, boundary conditions, equations of state, nuclear reactions, opacity, nucleosynthesis, chemical evolution of the galaxy, stellar evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	523	Stars and Interstellar Medium III	Structure of the interstellar medium, gaseous nebulae, recombination theory, ionization fronts and shock waves, galactic magnetic fields, magnetohydrodynamics, molecular clouds.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	531	Galaxies and Cosmology I	Structure and evolution of the Milky Way, stellar properties, populations and associations/clusters, interstellar medium, dark matter.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	532-M	Galaxies and Cosmology II	Structure of galaxies and the nearby universe, Hubble sequence, kappa-space, stellar populations, active galaxies, galaxy environments.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AST	533	Galaxies and Cosmology III	Issues in modern cosmology, the distance scale, cosmological parameters, cosmological tests, cosmic background radiation, early universe, galaxy formation and evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	591-M	Seminar		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
AST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
AST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
AST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
AST	111	Introduction to Solar Systems Astronomy	History, properties of light, instruments, study of solar system and nearby stars. For nonscience majors. Optional lab (AST 113). Both AST 111 and AST 113 or AST 114 must be taken to secure SQ general studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	
AST	112	Introduction to Stars, Galaxies, and Cosmology	Structure and evolution of stars, star clusters, galaxies, cosmology. For nonscience majors. Optional lab (AST 114). Both AST 112 and AST 113 or AST 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AST	113	Astronomy Laboratory I	Astronomical observations and experiments designed to help the student become familiar with the sky, telescopes, and astronomical measurements. Both AST 111 and 113 or AST 113 and 321 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre/Co-requisite: AST 111 or AST 321
AST	114	Astronomy Laboratory II	Similar to AST 113, but material chosen to supplement AST 112 and 322. Fee. Both AST 112 and 114 or AST 114 and 322 must be taken to secure SQ General Studies credit	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre- or Co-requisites: AST 112 or AST 322 (with or better if completed)
AST	301	Discovering the Sun and Its Planets	Comprehensive course in astronomy for non-science majors. Course will include lectures, written assignments, and hands-on work. Not open to students with credit in AST 111 (available at the Tempe campus) or its equivalent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
AST	302	Modern Astronomy	Comprehensive course in astronomy for non-science majors. Covers achievements and controversies of 20th century astronomy through lectures, written assignments, and hands-on work. Not open to students with credit in AST 112 (available at Tempe campus) or its equivalent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
AST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
AST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
AST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
AST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
ASU	101-HNR	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1.		Pre-requisite: Barrett Honors student
ASU	101-CPP	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	College of Public Programs	College of Public Programs	1.		Pre-requisite: College of Public Programs student
ASU	101-CTI	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	College of Tech & Innovation	Dean, College of Technology and Innovation	1.		Prerequisite(s): College of Technology and Innovation student
ASU	101-CS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		Pre-requisite: Cronkite School of Journalism and Mass Communication student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASU	101-COD	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		Pre-requisite: Herberger Institute of Design and the Arts student
ASU	101-HCA	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		Pre-requisites: Herberger Institute of Design and the Arts students only
ASU	101-FSE	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		Pre-requisite: Fulton School of Engineering student
ASU	101-LA	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1.		Pre-requisite: College of Liberal Arts & Sciences student
ASU	101-NCIAS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	New College of Interdisciplinary Arts and Sciences	1.		Pre-requisite: New College of Interdisciplinary Arts & Sciences student
ASU	101-NU	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Nursing & Healthcare Innovation students only
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		
ASU	101-SAAS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		Pre-requisite: School of Applied Arts & Sciences student
ASU	101-SOS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	1.		Pre-requisite: School of Sustainability student
ASU	101-ED	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: College of Teacher Education and Leadership undergraduate student
ASU	101-EI	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: College of Teacher Education and Leadership undergraduate student
ASU	101-TE	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Teacher Education and Leadership student
ASU	101-UC	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	University College	Dean, University College	1.		Pre-requisite: University College student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASU	101-WPC	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	1.		Pre-requisite: W.P.Carey student
ASU	101-MO	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		Pre-requisite: W.P.Carey student
ATC	230	Fundamentals of Air Traffic Management	Introduces the manuals, procedures, maps, charts, and regulations used by air traffic controllers in the National Airspace System (NAS).	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ATC	331	Tower Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in ATC towers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	332	TRACON Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in FAA TRACONs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	333	En Route Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in FAA ATC En Route Centers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	431	Tower Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:completed ATC 331 with a grade for D or better or be currently enrolled
ATC	432	TRACON Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ATC	433	En Route Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Completed ATC 333 with a grade of D or better, or currently enrolled
ATC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ATE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ATE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ATE	361	Building Structures I	Introduces load distribution on structures. Static analysis of determinant beams, trusses, arches, and rigid frames. Computer applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisite: ADE 321
ATE	362	Building Structures II	Strength of materials. Stresses in beams and columns. Thermal effects on structures. Analysis, design, and detailing of wood structural systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ATE	451	Building Systems I	Principles of solar radiation, heat and moisture transfer, and environmental control systems as form influences. Energy-conscious design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: ADE 421
ATE	452	Building Systems II	Architectural design implications of heating, ventilation, and air conditioning systems. Principles of lighting, daylighting, and acoustics, and their applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: ATE 451 with C or better; Co-requisite: ADE 422
ATE	462	Building Structures II	Strength of materials. Stresses in beams and columns. Thermal effects on structures. Analysis, design, and detailing of wood structural systems. Lecture, lab.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: ATE 361with a C or better; Co-requisites: ADE 322
ATE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ATE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		

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ATE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ATE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	521	Building Environmental Science	Scientific principles relating to comfort and environmental control. Heat and moisture transfer. Solar/natural energies for heating, cooling, and lighting.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	550	Passive Heating and Cooling	Theory, analysis, and application of passive and low-energy systems in order to maximize comfort and minimize energy consumption in buildings.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	553	Building Systems III	Design and integration of building systems, including mechanical, electrical, plumbing, security, communications, fire protection, and transportation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student; Co-requisite: ADE 521; ATE 563
ATE	556	Building Development	Comprehensive design development through the understanding and integration of building materials and systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: ADE 522 and APH 505
ATE	557	Construction Documents	Production of architectural working drawings; legal status, organization, layout, site survey plans, sections, elevations, details, schedules, and coordination.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	560	Building Energy Analysis	Computer simulation of building thermal behavior. Software review. Detailed study of selected simulation models using case study projects.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	562	Experimental Evaluation	Instrumentation, measurement and computational techniques for analysis of building components, and assessment of thermal and luminous performance. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	563	Building Structures III	Analysis, design, and detailing of steel buildings and frames. Lateral analysis of small rigid and braced frame systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student
ATE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	582	Environmental Control Systems	Heating, ventilation, and air-conditioning systems. Loads, psychrometrics, refrigeration cycle, air/water distribution, controls, energy performance standards, and utility rates.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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ATE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AVC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	301	Architectural Communication	Communication skills for architecture studios. Emphasis on graphics, drawing conventions, media, computer-aided design, design of presentations, and oral presentations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		
AVC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AVC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
AVC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AVC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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AVC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: CHM 231 with C or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with C or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-or Co-requisites: BCH 361 (with C or better if completed)
BCH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 231 with C or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with C or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-or Co-requisites: BCH 361 (with C or better if completed)
BCH	392	Introduction to Research Techniques	Instrumental methods and philosophy of research by actual participation in chemical research projects. May be repeated for total of 6 semester hours.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	461	General Biochemistry	Structure, chemistry, and metabolism of biomolecules and their role in the biochemical processes of living organisms. Credit is allowed for only BCH 461 or 361.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 234 or 334 with C or better; Co-requisites: CHM 341 or CHM 346
BCH	462	General Biochemistry	Continuation of BCH 461.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: BCH 461 with C or better
BCH	463	Biophysical Chemistry	Principles of physical chemistry as applied to biological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 341 or CHM 346 with C or better
BCH	464	Biophysical Chemistry Laboratory	Introduces physical methods in modern biochemistry.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		Pre-or Co-requisites: BCH 463 and BCH 467 (with a grade of C or better if completed)
BCH	465	Protein and Nucleic Acid Biochemistry	Structure and function of proteins and nucleic acids, including protein folding, enzymology, proteomics, DNA/RNA structure, replication, transcription, and genomics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: BCH 462 with a C or better
BCH	467	Analytical Biochemistry Laboratory	Quantitative analysis, separation and purification of biological molecules. Applies chemical and physical methods to the characterization of biological macromolecules.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	L	Pre/Co-requisite: BCH 462 with C or better if completed
BCH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
BCH	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BCH	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6	L	Pre-requisites: Must be an Honors student
BCH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-7		
BCH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	501	Current Topics in Biochemistry	May be repeated for credit.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
BCH	561	Advanced Topics in Biochemistry	Topics selected from emerging areas of biochemistry based primarily on current literature.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	564	Bionanotechnology	The use of biomolecules, bioelectronics, and biomedicine for applications in nanotechnology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	568	Molecular Mechanisms of Photosynthesis	Structure and function of photosynthetic complexes; mechanism of energy conversion in plants, bacteria, and model systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: CHM 231 with C or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with C or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.		Pre-or Co-requisites: BCH 361 (with C or better if completed)
BCS	101	Elementary Serbo-Croatian	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
BCS	102	Elementary Serbo-Croatian	See BCS 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 101 with a grade of D or better, or currently enrolled
BCS	201	Intermediate Serbo-Croatian	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 102 with a grade of D or better, or currently enrolled
BCS	202	Intermediate Serbo-Croatian	See BCS 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 202 with a grade of D or better or currently enrolled
BCS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
BCS	495	Serbo-Croatian for Heritage Speakers	Generates professional proficiency by developing communicative and written competency in standard literary Serbo-Croatian.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		

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BDE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
BDE	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Graduate College	Graduate College	1-12		
BDE	701	Fundamentals of Biological Design I	Training in the essentials of fields underlying interdisciplinary research in the biosciences and in the integration of multiple disciplines in use-inspired research. Modules concentrate on key concepts and current questions in the biological sciences, physical sciences, and engineering.	N	LEC	N	OPT	Graduate College	Graduate College	9.		
BDE	702	Fundamentals of Biological Design II	Emphasizes the integrative areas of computational bioinformatics, systems biology, and synthetic biology, and their application in biomedical research.	N	LEC	N	OPT	Graduate College	Graduate College	3.		
BDE	721	Integrative Research	Develops comprehensive solutions to societal problems by small interdisciplinary teams of students, including a proposal for research in an integrated science area. Covers issues of intellectual property, commercialization, societal impact and value, project management, product design, and historical examples of disruptive technological innovations.	N	LEC	N	OPT	Graduate College	Graduate College	3.		
BDE	722	Research Design	Writing and presentation of a research proposal in the form of a grant application, peer review sessions to provide feedback, examination of the grant review and funding process.	N	LEC	N	OPT	Graduate College	Graduate College	3.		
BDE	751	Teaching in Science	Guidance in teaching and exposition through assisting a faculty teaching mentor in the Biological Design core course and training in oral presentation skills, including instruction in how to effectively present posters and seminars and participation in outreach experiences in the community.	Y	LEC	Y	OPT	Graduate College	Graduate College	1.		
BDE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Graduate College	Graduate College	1-12		
BDE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
BDE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-15		
BDE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Graduate College	Graduate College	1-15		
BE	333	Issues in Teaching		Y	LEC	Y	CNV	Institute & Grad Sch Education	Dean, W.P. Carey School of Business	3.		
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
BIO	201	Human Anatomy and Physiology I	Studies the structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
BIO	202	Human Anatomy and Physiology II	Studies the structure and function of the human body. Topics include cardiovascular, respiratory, lymphatic/immune, endocrine, renal, digestive, and reproductive systems. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
BIO	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	340	General Genetics	Science of heredity and variation.	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		Pre-requisites:with a C or better:BIO 187 (or MBB 245, or both PLB 200 and PLB 201) and BIO 188(or MBB 247)

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BIO	351	Developmental Biology	Principles of developmental biology, including the development of major organ systems and their underlying molecular and cellular mechanisms. Illustrated mainly using vertebrate examples.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: BIO 187 and BIO 188 completed with a D or greater or currently enrolled
BIO	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	360	Animal Physiology	Principles and mechanisms of physiological regulation in animals, with a focus on humans.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	480	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	482	Advanced Methods of Teaching Biology	Design, delivery, and evaluation of student-centered, inquiry-based lessons for high school biology students. Learning cycle.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: BIO 480 with C or better
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	189	Life Sciences Career Paths	Overview of modern life sciences, including research trends, extracurricular opportunities, degree programs, and potential careers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
BIO	193	The Nature of Biological Science	Creative and critical thinking skills in biological research; nature of biological knowledge; role of experimentation, predictions, hypotheses, theories, values. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	201	Human Anatomy and Physiology I	Studies the structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SG	
BIO	202	Human Anatomy and Physiology II	Studies the structure and function of the human body. Topics include cardiovascular, respiratory, lymphatic/immune, endocrine, renal, digestive, and reproductive systems. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 201 with a grade of D or better
BIO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	300	Natural History of Arizona	Plant and animal communities of Arizona. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	301	Field Natural History	Organisms and their natural environment. Cannot be used for major credit in the biological sciences. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	302	Cancer and Heart Disease	Incidence and mortality statistics for cancer and heart disease; host and environmental risk factors; diagnosis, treatment and prevention strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisite: BIO 188 with a C or better
BIO	303	Radiation and Life	Benefits and risks of radiation exposure in society; medical applications, food irradiation, nuclear power, solar UV, population health effects. Cannot be counted toward a biology major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisite: BIO 188 with C or better
BIO	304	Radiation Medicine and Biology	Uses of radiation in medicine, including CT, diagnostic x rays, MRI, nuclear medicine, ultrasound; biological effects of radiation with emphasis on cancer.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 188 with a grade of C or better
BIO	310	Special Problems and Techniques	Qualified undergraduates may investigate a specific biological problem under the direction of a faculty member. May be repeated for a total of 6 semester hours.	N	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		
BIO	311	Biology and Society	Explores interactions between biological sciences and society, e.g., biomedical, environmental, ethical, historical, legal, philosophical, political, and social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: with a C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188. Students with credit for HPS 340, may not enroll in BIO 311
BIO	312	Bioethics	Critical examination of moral questions arising in biomedical contexts, particularly due to new technologies and scientific discoveries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	
BIO	314	Research Colloquium in Biology and Society I	Develops critical thinking abilities, research methods, and writing skills for research in the interactions between biological sciences and society. Both BIO 314 & 414 must be taken to secure L General Studies designation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: BS Biology and Society Concentration majors; a C or better in BIO 187 (or both PLB 200 and PLB 201) and BIO 188

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BIO	316	History of Biology: Conflicts and Controversies	Focuses on 19th and 20th centuries, considering biology as a discipline. Evolution, problems of heredity, development, and cell theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
BIO	318	History of Medicine	Scientific study of the human body, changing theories of disease, evolution of practical opinions on treatment, and the emerging institutionalization of medical practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
BIO	319	Environmental Science (Nonmajor)	Environmental and biological concepts used to understand ecological systems with specific references to problems caused by humans. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	G	
BIO	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:with a grade of C or better:BIO 187 (or both PBL 200 and PLB 201) and BIO 188
BIO	321	Introductory Ecology Laboratory	Lab and field observations and experiments to test current concepts and theories in ecology.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre/Co-requisites: BIO 320 with C or better if completed
BIO	322	Conservation Biology and Ecological Sustainability I	Species-level approaches to the protection, management, and restoration of biological resources from scientific and policy perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: A grade of C or better:BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	323	Conservation Biology and Ecological Sustainability II	Ecosystem-level approaches to the protection, management, and restoration of biota and ecosystem processes from local to global scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: A grade of C or better:BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	324	Environmental Ethics	Examines a full range of philosophical positions pertaining to our moral relationship to the natural world; anthropocentrism, individualism, biocentrism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	
BIO	325	Oceanography	Introduces marine geology, chemistry, and physical and biological oceanography. Methods of oceanic exploration, environmental and social aspects of oceans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: CHM 101 or CHM 113 with C or better; BIO 100, BIO 187 or GLG 101 with C or better; If you have credit in GLG 325, you may not enroll in BIO 325
BIO	331	Animal Behavior	Evolutionary, genetic, physiological, and ecological bases of animal behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and 188 with "C" or better
BIO	340	General Genetics	Science of heredity and variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites:with a C or better:BIO 187 (or MBB 245, or both PLB 200 and PLB 201) and BIO 188(or MBB 247)
BIO	341	Genetic Analysis	General genetics: science of heredity and variation using critical inquiry. Not open to students with credit in BIO 340.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	5.		Pre-requisites: C or better:BIO 187 (or MBB 245, or both PLB 200 and PLB 201) and BIO 188(or MBB 247); not open to students with credit in BIO 340
BIO	342	General Genetics Laboratory	Explores general principles of inheritance with special reference to Mendelian, molecular, and computational genetics via lab experiments.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites:BIO 340 or BIO 341 with a D grade or better, or be co-enrolled in either BIO 340 or BIO 341
BIO	343	Genetic Engineering and Society	Introduces genetic engineering, with emphasis on applications (transgenic plants and animals, cloning, vaccines, therapeutics, and diagnostics). Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: MBB 247 or BIO 340 with a C or better; Students who have credit for BIO 343, may not enroll in MBB 343
BIO	344	Origins, Evolution, and Creation	History of opposition to evolutionary thinking with special reference to American creationism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	345	Organic Evolution	Processes of adaptive change and speciation in sexual populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) and BIO 188 with C or better
BIO	346	The Darwinian Revolution	Origin, nature, and subsequent history of the ideas of Charles Darwin.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	351	Developmental Biology	Principles of developmental biology, including the development of major organ systems and their underlying molecular and cellular mechanisms. Illustrated mainly using vertebrate examples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:BIO 187 and BIO 188 completed with a D or greater or currently enrolled
BIO	352	Laboratory in Vertebrate Developmental Anatomy	Morphology of representative embryonic and adult vertebrates. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites:BIO 187 and BIO 188 with a C grade or better
BIO	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: C grade or better in: BIO 187 (or MBB 245 or both PLB 200 & PLB 201) and BIO 188 (or MBB 247)
BIO	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, or MAT 270 with C or better; Students with credit for MBB 355 or MAT 355 may not enroll in BIO 355
BIO	360	Animal Physiology	Principles and mechanisms of physiological regulation in animals, with a focus on humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:BIO 187 and BIO 188 with a C grade or better
BIO	361	Animal Physiology Laboratory	Experimental lab studies of physiological mechanisms in animals and model systems. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: BIO 360 (with C or better if completed)
BIO	370	Vertebrate Zoology	Characteristics, classification, evolution, and natural history of the major groups of vertebrate animals. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a grade of C or better
BIO	385	Comparative Invertebrate Zoology	Characteristics, life cycles, adaptations, and evolution of invertebrate animals. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	386	General Entomology	Form, activities, and classification of insects. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a grade of C or better
BIO	390	Medical/Dental Field Placement	Field placement for students exploring a career in a health profession. Requires classroom sessions and fieldwork.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	402	Service Learning	Provides academic enrichment and mentoring to economically disadvantaged children; related to course work in biology; requires weekly reflective reading and writing.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	
BIO	406	Computer Applications in Biology	Computer analysis techniques in biology emphasizing data entry, management and analysis, and graphic portrayal. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: C or better in:BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	410	Techniques in Wildlife Conservation Biology	Field and analytical techniques used to evaluate wildlife populations, their structure, viability, and environmental impacts. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 320, BIO 322, and BIO 323 with C or better

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BIO	411	Quantitative Conservation Biology	Principles of conservation science; demography and extinction risk; practical approaches to conserving small, declining, and exploited populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320, BIO 322 and BIO 323 with "C" or better
BIO	412	Conservation in Practice	Global biodiversity patterns, processes, and conservation; global environmental change; sustainable use of natural resources; emphasizing international approaches to conservation biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 322 and BIO 323 with C or better
BIO	414	Research Colloquium in Biology and Society II	Further develops critical thinking abilities, research methods, and writing skills for research in the interactions between biological sciences and society. Both BIO 314 & 414 must be taken to secure L General Studies designation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	Pre-requisites: BIO 314 with C or better
BIO	415	Biometry	Statistical methods applied to biological problems, design of experiments, estimation, significance, analysis of variance, regression, correlation, chi square, and bioassay; the use of computers. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	CS	Pre-requisites: Must have completed one of the following courses with a grade of C or better: MAT 210, 251, 265, or 270
BIO	416	Professional Values in Science	Considers issues related to values in science such as collaboration, finances, legal issues, media, mentoring, ownership of ideas, scientific integrity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: Grade of C or better in: BIO 187 (or both PLB 200 & PLB 201) and BIO 188. Students who have credit for HPS 410, may not enroll in BIO 416
BIO	417	Experimental Design	Fixed, random, mixed models; crossed and nested factorial designs; balanced and unbalanced data; completely randomized, blocked, repeated measure designs; ANCOVA.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 415 with C or better
BIO	421	Landscape Ecology	Discusses how landscape heterogeneity interacts with ecological processes, and implications for biodiversity conservation, resource management, and landscape and urban planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: You may not enroll in BIO 421 if you have credit for BIO 521; must have BIO 320 with a grade of C or better
BIO	423	Population and Community Ecology	Organization and dynamics of population and communities, emphasizing animals. Theoretical and empirical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with a C or better
BIO	424	Dynamic Modeling in Social and Ecological Systems	Introduces the development and use of dynamic mathematical models to study social and ecological phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better; Credit is allowed for only ASM, BIO or SOS 424
BIO	425	Animal Ecology	Physiological and behavioral adaptations of individual animals to both abiotic and biotic environments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with a grade of C or better
BIO	426	Limnology	Structure and function of aquatic ecosystems, with emphasis on freshwater lakes and streams. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: BIO 320 with C or better
BIO	427	Fire	A survey of fire on Earth--history, ecology, behavior, and management.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	Pre-requisites: A grade of C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	428	Biogeography	Environmental and historical processes determining distributional patterns of animals and plants, emphasizing terrestrial life.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 320 with C or better
BIO	431	Genes, Development, and Evolution	Contribution of genes, developmental processes, and evolution to pattern of phenotypic variation, including disease.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 187, and BIO 188 with a grade of C or better
BIO	435	Research Techniques in Animal Behavior	Experimental and field studies of animal behavior; description and quantification of animal behavior and interpretation of behavior within an evolutionary framework.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 331 with a grade of C or better
BIO	436	Sociobiology and Behavioral Ecology	Surveys animal and human social behavior examined from ecological and evolutionary perspectives using theoretical and empirical constructs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 331 with C or better
BIO	440	Functional Genomics	Covers emerging fields of genomics and proteomics. Discusses key technologies and their applications to the study of genomes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 340 with C or better; Credit only for MBB 440 or BIO 440
BIO	446	Principles of Human Genetics	Molecular and cellular analysis of the human genome.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: Completed BIO 340 or ASM 301 with a C or better; If you have credit in ASM 446, you may not enroll in BIO 446
BIO	450	Advanced Developmental Biology	Current concepts and experimental methods involving differentiation and biosynthetic activities of cells and organisms, with examples from microorganisms, plants, and animals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 351 with C or better
BIO	451	Cell Biotechnology Laboratory	Mammalian cell culture techniques, including mouse embryonic stem cells, the use of bioreactors, cell fractionation, and digital video imaging.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 353 with a C or better. Students who have credit for BME 451, may not enroll in BIO 451
BIO	453	Animal Histology	Microscopic study of animal tissues. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: with a C or better: BIO 187 and 188
BIO	455	Introduction to Comparative Genomics	Explores genomic sequences and hypotheses for their structure, evolutionary history, and underlying mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	456	Bioinformatics and Molecular Evolution	Fundamental biological motivation and methods used in bioinformatics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 345 and 355 (or MBB 355, or MAT 355) with C or better
BIO	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: C grade or better in BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	461	Comparative Animal Physiology	A comparative approach to understanding the function of animal physiological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 360 with C or better
BIO	462	Endocrine Physiology	Mechanisms of action of hormones; endocrine control of homeostasis, growth, stress responses, and reproduction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 360 with C or better
BIO	464	Photobiology	Principles underlying the effects of light on growth, development, and behavior of plants, animals, and microorganisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better; Students who have credit in PLB 440, may not enroll in BIO 464
BIO	465	Neurophysiology	Detailed treatment of cellular and organismal neurophysiology and nervous system function.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 360 with C or better

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BIO	466	Neurophysiology Laboratory	Intracellular and extracellular electrophysiological recording techniques, histological preparations, and dye-filling techniques.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: BIO 465 or BIO 467 (with C or better if completed)
BIO	467	Neurobiology	Introduces major areas of neurobiology, from fundamental cellular and molecular processes through systems neuroscience and neural bases of behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 360 with C or better
BIO	469	Computational Neuroscience: Case Studies in Neuroethology	Introduces the use of computational methods for understanding neural function at the cellular, circuit, and systems levels.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 360 with C or better
BIO	470	Systematic Zoology	Philosophy, theory, practice of interpreting animal diversity, including species concepts, speciation, nomenclature, and evolutionary and phylogenetic classification emphasizing phylogenetics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: C grade or better in BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	471	Ornithology	Biology of birds. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	472	Mammalogy	Classification, structure, habits, ecology, and distribution of mammals, emphasizing North American forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	473	Ichthyology	Systematics and biology of recent and extinct fishes. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	474	Herpetology	Interdisciplinary approach to the study of reptiles and amphibians. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	480	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: with a grade of C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	482	Advanced Methods of Teaching Biology	Design, delivery, and evaluation of student-centered, inquiry-based lessons for high school biology students. Learning cycle.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 480 with C or better
BIO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	490	Surgical Field Placement	Advanced field placement for students exploring a career in a health profession. Requires classroom sessions and fieldwork.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 390 with C or better
BIO	492	Honors Directed Study		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		
BIO	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
BIO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	495	Undergraduate Thesis	Guided research culminating in the preparation of an undergraduate thesis based on supervised research done in this and previous semesters.	N	THE	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
BIO	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
BIO	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
BIO	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	502	Transmission Electron Microscopy	Theory, use, and methods of preparing biological materials for transmission electron microscopy. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	505	Scanning Electron Microscopy	Theory, use, and methods of preparing biological materials for scanning electron microscopy. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	508	Scientific Data Presentation	Techniques necessary for presentation of scientific data used in journal publications, grant proposals, and visual presentations. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	515	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Credit is allowed for only BIO 515, GLG 547, PAF 547 or SOS 516
BIO	516	Foundations of Bioethics	Advanced introduction to the theoretical and normative foundations of the field of bioethics. May be repeated for credit.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	520	Biology of the Desert	Factors affecting plant and animal life in the desert regions and adaptations of the organisms to these factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	521	Landscape Ecology	Discusses how landscape heterogeneity interacts with ecological processes, and implications for biodiversity conservation, resource management, and landscape and urban planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		You may not enroll in BIO 521 if you have credit for BIO 421
BIO	522	Populations: Evolutionary Ecology	Principles of population biology and community ecology within an evolutionary framework.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	524	Ecosystems	Structure and function of terrestrial and aquatic ecosystems, with emphasis on productivity, energetics, biogeochemical cycling, and systems integration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	525	Microclimate Methods	Techniques to measure and quantify microclimate and mass transfer. Supporting principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	526	Quantitative Ecology	Sampling strategies, spatial pattern analysis, species diversity, classification, and applications of multivariate techniques to ecology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		

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BIO	529	Advanced Limnology	Recent literature, developments, methods, and limnological theory; field and lab application to some particular topic in limnology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	543	Molecular Genetics	Nature and function of the gene; emphasis on the molecular basis of inheritance and gene expression in prokaryotes and eukaryotes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	545	Populations: Evolutionary Genetics	Mathematical models in the description and analysis of the genetics of populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	546	Principles of Human Genetics	Examines human molecular genetics from an evolutionary perspective, particularly analysis, current debates, the Human Genome Project, disease, ethics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	547	Techniques in Evolutionary Genetics	Practical experience in modern techniques for the study of evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	550	Advanced Cell Biology	Applies contemporary electron microscopic and biochemical/molecular techniques for studying eukaryotic cell functions. Mechanisms of intracellular protein trafficking.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	551	Biomembranes	Structure and function of biological membranes, emphasizing synthesis, fluidity, exocytosis, endocytosis, and cell responses to hormones and neurotransmitters.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	552	Developmental Genetics	Genetic approaches to the analysis of development during the life cycle of eukaryotic organisms, and the role of genes in the unfolding of the differentiated phenotype.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	561	Comparative Animal Physiology	A comparative approach to understanding the function of animal physiological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	563	Environmental Physiology	Physiological responses and adaptations of animals to various aspects of the physical environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	564	Cellular Physiology and Signaling	Emphasizes the molecular basis for cell structure, function and intercellular signaling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		

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BIO	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
BIO	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	Pre-requisites: BIO 187 with of C or greater or be currently enrolled
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	201	Human Anatomy and Physiology I	Studies the structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	202	Human Anatomy and Physiology II	Studies the structure and function of the human body. Topics include cardiovascular, respiratory, lymphatic/immune, endocrine, renal, digestive, and reproductive systems. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		
BIO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	301	Foundations of Interdisciplinary Studies	Introduces concepts and methods of interdisciplinary study by critically examining anticipated 21st-century workplace and civic trends.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; Activation of BIS eligibility student group by a BIS advisor
BIS	301	Foundations of Interdisciplinary Studies	Introduces concepts and methods of interdisciplinary study by critically examining anticipated 21st-century workplace and civic trends.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; Activation of BIS eligibility student group by a BIS advisor
BIS	302	Interdisciplinary Inquiry	Explores interdisciplinarity and integration as applied to various approaches of human inquiry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; BIS 301 with a grade of C or better
BIS	302	Interdisciplinary Inquiry	Explores interdisciplinarity and integration as applied to various approaches of human inquiry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; BIS 301 with a grade of C or better
BIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	401	Applied Interdisciplinary Studies	Applies interdisciplinary problem-solving skills in internships, service-learning, or research; may involve individual or group projects combining both concentrations.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	401	Applied Interdisciplinary Studies	Applies interdisciplinary problem-solving skills in internships, service-learning, or research; may involve individual or group projects combining both concentrations.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	402	Senior Seminar	Capstone course helps integrate classroom and experiential learning. Students choose among course topics that address their interests.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	402	Senior Seminar	Capstone course helps integrate classroom and experiential learning. Students choose among course topics that address their interests.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
BIS	493	Honors Thesis		N	THE	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
BIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		

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BIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	514	Bilingual/Multicult-Spec Educ	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	515	Instructional Methods for Bilingual Students	Introduces general dual language teaching approaches. Focuses on the effective teaching of limited English proficient populations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	521	Primary/Elementary Communication Arts in Bilingual Education	Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis)	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	524	Secondary Sheltered ESL Content Teaching	Teaching and assessing ESL adolescents in the content areas with an emphasis on integrating language acquisition principles with content learning.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	526	SEI for Elementary Schools	Prepares elementary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		
BLE	527	SEI for Middle and Secondary Schools	Prepares middle and secondary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		
BLE	528	Social Studies for Bilingual/ESL Teachers	Provides language and instructional methodologies and assessment strategies relevant to bilingual/multicultural students in social studies content delivered in Spanish and English.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	529	Language Assessment and Evaluation of ESL/BLE Students	Assessment and evaluation of linguistic minorities; test theory, score interpretation; culturally responsive assessment; assessment of language and school achievement.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		
BLE	533	Literacy in Secondary BLE/ESL Settings	Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	537	Language Structure Aquisition	Introduces linguistics and language acquisition. Grammatical theory; language use in educational contexts; first, second, and simultaneous language acquisition.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Credit is allowed for only BLE 537 or LIN 510
BLE	541	Nature of Bilingualism/Second-Language Acquisition	Bilingual and second-language acquisition, with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	543	Bilingual Education Models	Bilingual education programs in other countries; analysis of political, social, economic, and educational implications; practice in planning bilingual education curricula. See also offerings under MCE, SED, SPE, and SPF.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	565	Literature for Latina and Latino Children and Adolescents	Selects, analyzes, and utilizes literature for Latino/a and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Educlnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

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BLE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
BLE	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis)	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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BLE	522-W	Literacy/Biliteracy Development	Examines approaches to first- and second-language reading and writing for bilingual/second-language learners from a whole language perspective (Spanish-English emphasis).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	527	SEI for Middle and Secondary Schools	Prepares middle and secondary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	541	Nature of Bilingualism/Second-Language Acquisition	Bilingual and second-language acquisition, with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	578	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
BLE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
BLE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
BLE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
BLE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BLE	220	Foundations of Structured English Immersion	Examines current educational practices and historical legal issues. Prepares teacher candidates with a provisional Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	220	Foundations of Structured English Immersion	Examines current educational practices and historical legal issues. Prepares teacher candidates with a provisional Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	312	ESL, Diversity, and Culture in Education	Examines social, historical, philosophical, and legal issues affecting racially, linguistically, culturally, and exceptionally diverse students in U.S. schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Co-requisites: Block 1 students, TEL 311, TEL 313, TEL 314, TEL 315 and TEL 396; Block 1B, TEL 315 and TEL 396; Block 2 ECT students, ECT 321, ECT 322, ECT 323, ECT 324 and ECT 397 OR Professional Development School students as appropriate
BLE	312	ESL, Diversity, and Culture in Education	Examines social, historical, philosophical, and legal issues affecting racially, linguistically, culturally, and exceptionally diverse students in U.S. schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
BLE	321	ESL Methods for Diverse Language Classrooms	Strategies and materials for second-language learning, including research on language acquisition/learning, practical applications of ESL methodologies, phonics.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood, ECT 411, ECT 412, ECT 413, ECT 414, ECT 496 OR Elementary Ed/ESL or Elementary Ed/BLE, BLE 322, BLE 324, EDP 323 and EED 397 OR Elem Ed, RDG 322, EDP 323, EED 324 and EED 397 OR PDS (Professional Development School)

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BLE	322	Second-Language Literacy 1 in Elementary Schools	Instructional/assessment strategies, including systematic, research-based phonics, vocabulary, comprehension, spelling, writing, phonemic writing in Spanish/English.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: BLE 321, BLE 324, EDP 323 and EED 397 or PDS (Professional Development School) student as appropriate
BLE	324	Social Studies for Diverse Language Classrooms	Social studies education standards, curriculum, and instructional strategies for English language learners.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: BLE 321, BLE 322, EDP 323 and EED 397 or PDS (Professional Development School) student as appropriate
BLE	335	Language Diversity in Classrooms	Issues in sociolinguistics and language variation in schools with a focus on classroom interaction, instruction, curriculum, assessment, and language policy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	335	Language Diversity in Classrooms	Issues in sociolinguistics and language variation in schools with a focus on classroom interaction, instruction, curriculum, assessment, and language policy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	396	Field Experience I	Applies course content in a bilingual/ESL school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
BLE	400	Principles of Language Minority Education	Overview of philosophical and theoretical foundations of bilingual education and ESL models of instruction. Other topics include significant legislative and judicial measures.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	407	SEI for Secondary Students	Examines foundations, assessment, English language learner proficiency standards, and strategies (including SEI) for the 7-12 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	408	SEI for Linguistically Diverse Learners	Examines foundations, assessment, English language learner proficiency standards, and strategies (including SEI) for the K-8 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	409	Methods in Language-Sensitive Content Teaching	Methods course for bilingual and ESL preservice students. Examines the role of language and culture in teaching, program types, and general strategies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Early Childhood Education student; GPA >=2.5
BLE	409	Methods in Language-Sensitive Content Teaching	Methods course for bilingual and ESL preservice students. Examines the role of language and culture in teaching, program types, and general strategies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	410	Lang Arts/Lit/Lang-Navajo/Eng	Provides foundational concepts for language and literacy development in bilingual (Navajo/English) K-8 settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		
BLE	413	Second-Language Literacy 2 in Elementary Schools	Literacy and language arts instruction; assessment of reading and writing; transition literacy skills, particularly critical reading of content.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 414, EED 411, EED 412, EED 496 OR PDS (Professional Development School) student
BLE	414	Reading Methods, Management, and Assessment in BLE/ESL Settings	Teaching and assessing reading with emphasis on integrated curriculum and literature-based instruction for BLE/ESL learners. Strategies for decoding (phonics), vocabulary, comprehension, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	414-W	Bilingual/ESL Curriculum and Organization	ESL curriculum content and organization, including program model effectiveness, language assessment and language usage, special needs and parent involvement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, EED 411, EED 412, EED 496 OR PDS (Professional Development School) student as appropriate
BLE	420	Science Methods, Management, and Assessment in BLE/ESL Settings	Methods, management strategies, and assessment procedures for teaching science to BLE/ESL students in elementary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	433	Language Arts Methods, Management, and Assessment in Elementary BLE/ESL Settings	Social nature of oral and written, first- and second-language acquisition and congruent teaching, management, assessment practices in BLE/ESL settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student with a GPA of at least 2.50; Must have completed BLE 408 (or BLE 409), BLE 420, MCE 447 and BLE 480 with a grade of C or greater or be currently enrolled; Co-requisites: BLE 414, 481, 496 and SPE 416
BLE	455	Social Studies Methods, Management, and Assessment in Elementary BLE/ESL Settings	Examines methods, classroom management strategies, and assessment techniques for social studies instruction in elementary BLE/ESL classes.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	470	Student Teaching Seminar	Concurrent course with the student teaching experience that provides support, content, and critical evaluation opportunities directly related to teaching practices.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
BLE	478	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
BLE	478-W	Student Teaching in Diverse Language Classrooms	Student teaching in diverse language classrooms. Focuses on use of English language learning and bilingual strategies; integrates all previous course work. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Co-requisites: BLE 479 OR PDS (Professional Development School) student
BLE	479	Capstone Seminar in Bilingual/ESL Education	Reflective, experience-based integration of theory and practice; professional development for bilingual/ESL teachers.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: BLE 478 OR PDS (Professional Development School) student
BLE	480	Mathematics Methods, Management, and Assessment in Elementary BLE/ESL Settings	Teaching, management, and assessment of mathematics in K-8 BLE/ESL settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	481	Reading Practicum	Applies concepts from BLE 414. Supervised school-based experiences in teaching reading to BLE/ESL students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student with a GPA of at least 2.50; Must have completed BLE 408, BLE409, BLE420, BLE480 and MCE447 with a grade of C or better or be currently enrolled; Co-requisites: BLE414, BLE433, BLE496 and SPE416

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BLE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
BLE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
BLE	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	496	Field Experience	Applies course content in a bilingual/ESL school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Initial Teacher Certification Program Admission
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BLE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BME	100	Introduction to Bioengineering	Introduces profession of bioengineering: bioengineering design process, teaming, computer models in bioengineering, communications skills, career planning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	2.		Pre-requisites: Bioengineering and Pre-Med Engineering student; Pre/Co-requisite: ENG 101, 105, or 107 with C or better
BME	111	Engineering Perspectives on Biological Systems	Biological concepts for the emerging engineer. Introduces biological and earth systems engineering, materials, structures, fluid mechanics, bioelectricity, and the dynamic, nonlinear nature of nature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisite: Engineering student
BME	112	Engineering Perspectives on Biological Systems Laboratory	Introduces biological concepts for the emerging engineer in a lab setting: biological and earth systems engineering, materials, structures, fluid mechanics, bioelectricity, and the dynamic, nonlinear nature of nature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		Pre-requisite: Engineering student
BME	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	200	Conservation Principles in Bioengineering	Applies bioengineering analysis and problem solving of mass, energy, and charge balances to medical and biological systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: CHM 114 or CHM 116 completed with C or better; PHY 131/132 with a C or better; BIO 188(or BME 111/112) with a C or better; Co-requisite:MAT 275
BME	202	Global Awareness within Biomedical Engineering Design	Introduces ethical, legal, social, economic, and technical issues arising from the design and implementation of bioengineering technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.	L or HU	Pre-requisites: Engineering students OR have a minimum cumulative GPA of 2.50; ENG 102, 105 or 108 completed with a grade of C or greater or be currently enrolled; ECN 111 or ECN 112 AND either ECE 100, 106 or 194 completed with a grade of D or greater
BME	235	Physiology for Engineers	Physiology of the nervous, muscular, cardiovascular, endocrine, renal, and respiratory systems. Emphasizes use of quantitative methods in understanding physiological systems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: BIO 188 or BME 111 and BME 112 with C or better, CHM 114 or CHM 116 with C or better. Pre or Co-requisite: PHY 131 and PHY 132.
BME	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BME	300	Bioengineering Product Design	The fundamentals of financial and organizational structure of business and how it influences bioengineering analysis, design, and decision making; biomedical ethics and device and drug regulation; and fundamentals of business and technical management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE Junior, Senior or Post-Bac; BME 100 with C or better; ENG 102, 105 or 108 with C or better
BME	318	Biomaterials	Material properties of natural and artificial biomaterials. Tissue and blood biocompatibility. Uses of materials to replace body parts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE student; BME 235 with a C or better
BME	331	Bioengineering Transport Phenomena	Transport phenomena with emphasis on momentum, energy, and mass transport in living systems, medical devices, and other therapeutic/diagnostic applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 212 (or ECE 214), MAT 274 (or MAT 275) and CHM 341 with D or better; BME 200 with C or better
BME	350	Signals and Systems for Bioengineers	Applies principles of calculus and ordinary differential equations to analysis and computer processing of biosignals and linear modeling of biosystems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Engineering BSE/BS student; EEE 202 with C or better; MAT 274 or MAT 275 with C or better; Pre/Co-requisite: MAT 343
BME	370	Microcomputer Applications in Bioengineering	Uses microcomputers for real-time data collection, analysis, and control of experiments involving actual and simulated physiological systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: BS/BSE Engineering students only; BME 235, BME 350 with a C or better or currently enrolled
BME	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	411	Biomedical Engineering I	Reviews diagnostic and prosthetic methods using engineering methodology. Introduces transport, metabolic, and autoregulatory processes in the human body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BSE/BS students; Minimum GPA of 2.50; BME 334 with C or better
BME	412	Biomedical Engineering II	Reviews electrophysiology and nerve pacing applications. Introduces biomechanics and joint/limb replacement technology, cardiovascular and pulmonary fluid mechanics, and the application of mathematical modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BSE/BS students; Minimum cumulative GPA of 2.50
BME	413	Biomedical Instrumentation	Principles of medical instrumentation. Studies of medical diagnostic instruments and techniques for the measurement of physiological variables in living systems. Both BME 413 and BME 423 need to be taken together to secure L General Studies credit.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.	L	Pre-requisites: Engineering BS or BSE student; BME 370, BME 235 with C or better
BME	415	Biomedical Transport Processes	Principles of momentum, heat, and mass transport with applications to medical and biological systems and medical device design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.0; MAT 274 with a D or better or currently enrolled; PHY 116 or PHY 131 with a D or better or currently enrolled in PHY 131 OR Graduate Engineering student
BME	416	Biomechanics	Mechanical properties of bone, muscle, and soft tissue. Static and dynamic analysis of human movement tasks such as locomotion.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE student; BME 318 and MAE 212 with C or better
BME	417	Biomedical Engineering Capstone Design I	Technical, regulatory, economic, legal, social, and ethical aspects of medical device systems engineering design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.	L	Pre-requisite: BME 318; BME 331; BME 370; IEE 380; BME 300 with C or better; Pre/Co-requisite: BME 413
BME	419	Biocontrol Systems	Applies linear and nonlinear control systems techniques to analysis of neuromusculoskeletal, cardiovascular, thermal, and mass transfer systems of the body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS or BSE student; BME 350 and BME 370 with C or better
BME	423	Biomedical Instrumentation Laboratory	Lab experience with problems, concepts, and techniques of biomedical instrumentation in static and dynamic environments. Both BME 413 and BME 423 need to be taken together to secure L General Studies credit. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.	L	Pre-requisites: BS/BSE Engineering, pre-requisite or co-requisite: BME 413
BME	434	Applications of Bioengineering Transport Phenomena	Develops mathematical models of transport phenomena in physiological systems, medical devices, and pharmacokinetic analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS or BSE student; BME 331 with C or better
BME	451	Cell Biotechnology Laboratory	Mammalian cell culture techniques, including mouse embryonic stem cells, the use of bioreactors, cell fractionation, and digital video imaging.	N	LEL	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: BIO 353 with a C or better. Students who have credit for BME 451, may not enroll in BIO 451
BME	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	490	Biomedical Engineering Capstone Design II	Individual projects in medical systems or medical device design and development. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Engineering BS or BSE student; BME 417 with C or better
BME	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6		
BME	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6	L	Pre-requisites: Must be an Honors student
BME	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	496	Professional Seminar	Professional and ethical aspects with a discussion of responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-7		Pre-requisite: Bioengineering or Pre-Med Engineering BS or BSE student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BME	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	511	Biomedical Engineering I	Diagnostic and prosthetic methods using engineering methodology. Transport, metabolic, and autoregulatory processes in the body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	512	Biomedical Engineering II	Electrophysiology and nerve pacing applications. Introduces biomechanics and joint/limb replacement, technology, cardiovascular and pulmonary fluid mechanics, and mathematical modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	513	Biomedical Instrumentation	Principles of medical instrumentation. Studies of medical diagnostic instruments and techniques for the measurement of physiologic variables in living systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	514	Advanced Biomedical Instrumentation	Principles of applied biophysical measurements using bioelectric and radiological approach.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	515	Biomedical Transport Processes	Principles of momentum, heat, and mass transport with applications to medical and biological systems and medical device design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	516	Topics in Biomechanics	Mechanical properties of bone, muscle, and soft tissue. Static and dynamic analysis of human movement tasks, including in-depth project.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	518	Introduction to Biomaterials	Topics include structure property relationships for synthetic and natural biomaterials, biocompatibility, and uses of materials to replace body parts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	519	Topics in Biocontrol Systems	Linear and nonlinear control systems analysis of neuromusculoskeletal, cardiovascular, thermal, and mass transfer systems of the body, including in-depth project.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	520	Bioelectric Phenomena	Study of the origin, propagation, and interactions of bioelectricity in living things; volume conductor problem, mathematical analysis of bioelectric interactions, and uses in medical diagnostics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	521	Neuromuscular Control Systems	Overview of sensorimotor brain structures. Application of nonlinear, adaptive, optimal, and supervisory control theory to eye-head-hand coordination and locomotion.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	522	Biosensor Design and Application	Theory and principles of biosensor design and application in medicine and biology. Principles of measurements with biosensors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	523	Physiological Instrumentation Lab	Lab experience with problems, concepts, and techniques of biomedical instrumentation in static and dynamic environments.	N	LAB	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		Pre-requisites: Graduate Engineering students only
BME	524	Fundamentals of Applied Neural Control	Fundamental concepts of electrical stimulation and recording in the nervous system with the goal of functional control restoration.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	525	Surgical Techniques	Principles of surgical techniques, standard operative procedures, federal regulations, guidelines, and state-of-the-art methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	2.		Pre-requisites: Graduate Engineering students only
BME	532	Prosthetic and Rehabilitation Engineering	Analysis and critical assessment of design and control strategies for state-of-the-art medical devices used in rehabilitation engineering.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	533	Transport Processes I	Unified treatment of momentum, heat, and mass transfer from molecular theory, and continuum points of view. Continuum equations of microscopic and macroscopic systems and multicomponent and multiphase systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	534	Transport Processes II	Continuation of BME 533 or CHE 533, emphasizing mass transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	543	Thermodynamics of Chemical Systems	Classical and statistical thermodynamics of nonideal physicochemical systems and processes; prediction of optimum operating conditions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	544	Chemical Reactor Engineering	Reaction rates, thermodynamics, and transport principles applied to the design and operation of chemical reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	551	Movement Biomechanics	Mechanics applied to the analysis and modeling of physiological movements. Computational modeling of muscles, tendons, joints, and the skeletal system with application to sports and rehabilitation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	566	Medical Imaging Instrumentation	Design and analysis of imaging systems and nuclear devices for medical diagnosis, therapy, and research. Lab experiments using diagnostic radiology, fluoroscopy, ultrasound, and CAT scanning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	568	Medical Imaging	CT, SPECT, PET, and MRI. 3-D in vivo measurements. Instrument design, physiological modeling, clinical protocols, reconstruction algorithms, and quantitation issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BME	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		Pre-requisites: Graduate Bioengineering students only
BME	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-15		
BME	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-15		
BMI	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		
BMI	501	Introduction to Biomedical Informatics	Overview of the field of biomedical informatics for use of computers and information in healthcare and the biomedical sciences.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	502	Foundations of Biomedical Informatics Methods I	First semester of a two-semester course surveying the methods and theories underlying the field of biomedical informatics.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	505	Foundations of Biomedical Informatics Methods II	Second semester of a two-semester course surveying the methods and theories underlying the field of biomedical informatics.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: BMI 502 with a C or better; admission to a graduate program in the School of Computing and Informatics
BMI	511	Decision Support and Evidence-Based Practice	Biomedical decision making and the tools and techniques for decision support, including artificial intelligence and machine learning techniques.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		
BMI	515	Advanced Biostatistical Methods	Understanding biomedical data; how to use statistical methods and software to correctly analyze biomedical data.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	516	Advanced Biomedical Data Analysis	Acquisition, conversion and organization of biological data into relevant diagnostic, therapeutic, and research information using information extraction and data mining.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: BMI 501 with C or better, and admission to any SCI graduate program

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BMI	520	Modeling Gene Regulatory Networks	Computational and mathematical modeling used to approximate gene regulatory networks as well as signaling pathways and inference of model parameters.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: BMI 505 and BMI 516 with C or better, and admission to any SCI graduate program
BMI	540	Problem Solving in Biomedical Informatics	Theory and practice of software engineering principles as they apply to large- and medium-scale clinical systems from bench to bedside.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisite: BMI 501 with C or better, and admission to any SCI graduate program
BMI	541	Cognition and Decision Making in Healthcare	Conceptual and methodological issues in cognitive science and medical informatics, including design and use of technology in medical settings.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	555	Medical Information Management	Database theory and information management systems with applications to biomedical domain, including use of databases in the Web context.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: CSE 412 with D or better, and admission to any SCI graduate program
BMI	560	Teaching in Biomedical Informatics	Student serves as a teaching assistant with a faculty member who is teaching either a required or elective course in the Biomedical Informatics curriculum. Such courses will generally be BMI courses but with the approval of the student's faculty program advisor may include a course that is an approved elective in the BMI program but is offered in another department within the university. The experience provides a significant teaching role, either lecturing or moderating small group sessions or laboratories. Grading class homework assignments and designing/grading examinations will also typically be part of the experience. Assisting other students outside of class and being available during office hours will also generally be part of the student teacher's role. A student may also receive 1 hour of credit for participating substantively in the design of a new course, working closely with a faculty member. Generally in such circumstances the student should then serve as course teaching assistant when it is offered for the first time (separate enrollment in this course).	N	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1.		Pre-requisite: Biomedical Informatics PhD student
BMI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		Pre-requisite: BMI Graduate student
BMI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Biomedical Informatics Program	1-12		
BMI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	GNA	Graduate College	Biomedical Informatics Program	1-12		Pre-requisite: Biomedical Informatics Masters student
BMI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		Pre-requisites: Admission to any SCI graduate program
BMI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Graduate College	Biomedical Informatics Program	1-12		
BMI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Graduate College	Biomedical Informatics Program	1.		
BMI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1-4		Pre-requisites: Admission to any SCI graduate program
BMI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Biomedical Informatics Program	1-12		Pre-requisite: Biomedical Informatics Masters student
BMI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		
BMI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	OPT	Graduate College	Biomedical Informatics Program	1-15		
BMI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Graduate College	Biomedical Informatics Program	1-15		
BMI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BMI	101	Introduction to Bioinformatics	Introduces existing and future applications of biomedical informatics. Overview of history and present state of the field. Introduces topics in translational bioinformatics, such as sequence alignment, the Human Genome Project, gene expression analysis, genome-wide association studies, next-generation sequencing.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	102	Introduction to Public Health/Imaging Informatics	Introduces existing and future applications of biomedical informatics. Overview of history and present state of the field. Second course in a three-semester series focusing on biomedical informatics applications in public health, including population studies and outbreak detection, and medical imaging, including telemedicine.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		Pre-requisite: BMI 101 with B or better
BMI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	Biomedical Informatics Program	1-4		
BMI	201	Introduction to Clinical Informatics	Introduces existing and future applications of biomedical informatics. Overview of history and present state of the field. Provides an introduction to biomedical informatics techniques and applications used in clinical environments. Includes searching and organizing free text information, decision analysis techniques and clinical decision support systems, and clinical applications including physician order entry used in electronic medical records. Also covers challenges in clinical informatics, including sociotechnical and cognitive issues in implementation and use.	N	LEC	N	GRD	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	211	Modeling Biomedical Decisions	First semester of a three-semester course sequence surveying the methods and theories underlying the field of biomedical informatics. Explores models of medical decision making, including classical decision theory, Bayesian, and cognitive models. Also includes a component discussing evaluation methods in biomedical informatics.	N	PRA	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	221	Knowledge Representation for Biomedical Informatics	Introduces topics in knowledge representation and modeling, including frame-based systems, logic-based systems, rule-based systems, inference, and reasoning. Overview of history and present state of the field.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	301	Clinical Environments	Designed for medical informatics students who have no significant clinical experience in the U.S. Introduces medical terminology and exposes students to the clinical environments in which health care providers create, manage, and use clinical information. Students attend lectures and spend a significant portion of time examining and reporting on different clinical settings throughout the semester.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	311	Modeling Biomedical Knowledge	Introduces concepts of artificial intelligence and knowledge modeling using medical informatics examples. Historical foundations and motivations of AI in medical applications; problem solving, reasoning, knowledge management, and planning as applied to medical informatics problems.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	312	Modeling Biomedical Data	Third semester of a three-semester course surveying the methods and theories underlying the field of biomedical informatics. Explores methods of use in the design and maintenance of biomedical databases, machine learning techniques, information retrieval in biomedicine and other methods specific to bioinformatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	330	Topics in Translational Bioinformatics	Provides an introduction to bioinformatics methods and applications used in the field of translational medicine research. Topics include bioinformatics data acquisition and management, including microarrays, database modeling and integration; analysis methodologies, including statistics and data mining; and applications.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	332	Team Dynamics for Healthcare IT Projects	Teaches the fundamentals of leadership, management, and team dynamics in a project-focused software engineering environment, and with a focus on informatics and healthcare applications. Teaches students about team and group dynamics, recognizing dysfunctional teams, and helping to fostering productive group and leadership skills.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	461	Advanced Topics in Biomedical Informatics I	Covers current trends and cutting-edge research areas of clinical, public health, and consumer health informatics. Particular emphasis on research that is of relevance to patients, and the healthy public, covering such topics as outbreak detection and the personal health record. Also covers research on the use of technology in medical education, and the ways in which clinical decision support systems are applied in contemporary medical practice.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BMI	462	Advanced Topics In Biomedical Informatics II	Covers current trends and cutting-edge research areas of bioinformatics, imaging informatics, and translational science. Emphasizes informatics approaches to the novel data sources that are supplied by the next generation of methods for affordable gene sequencing, and initiatives underway to accelerate the integration of novel research findings into everyday clinical practice. Includes a series on modeling and simulation, current approaches to computer-aided diagnosis of medical images, ways in which technology can support the discovery of new knowledge, and the application of telemedicine to remotely facilitate clinical care.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	465	Introduction to Comparative Genomics	Explores genomic sequences and hypotheses for their structure, evolutionary history, and underlying mechanisms.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	466	Bioinformatics and Molecular Evolution	Fundamental biological motivation and methods used in bioinformatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		Pre-requisites: BIO 345 and 355 (or MBB 355, or MAT 355) with C or better
BMI	482	Capstone I	First course in capstone sequence for biomedical informatics majors emphasizing the development of technical skills and effective team work within the context of a research project in biomedical informatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	483	Capstone II	Second course in capstone sequence for biomedical informatics majors emphasizing the development of technical skills and effective team work within the context of an applied project in biomedical informatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		Pre-requisite: BMI 482 with C or better
BMI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	Biomedical Informatics Program	1-4		
BUA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	300	Career Management	Provides professional program business administration students with information on ASU business-related courses, business careers, interviewing, job hunting, and résumé skills.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	1.		
BUA	330	Organizational Leadership	Strategies, skills, and techniques that promote successful leadership within organizations. Practice leadership skills and self-discovery in preparation for leadership positions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	380	Small Business Leadership	Develops leadership skills needed to form, lead, and operate a small business. Emphasizes creating a vision, research, and problem solving.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	381	Small Business Accounting and Finance	Accounting and finance skills needed by small business owners to acquire, allocate, and track monetary resources and evaluate performance.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	382	Small Business Sales and Market Development	Building and maintaining customers, developing a market identity and a niche, and the importance of sales.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	383	Small Business Working Relationships	Addresses communication and the people in a business--clients, employees, suppliers, competitors, governments, family, and self development.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	384	Small Business Operations and Planning	Planning and executing plans--the what, when, where, how, and who from product/service/project idea to pay back or completion.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-Requisites: Cannot be Agriculture Business Administration BS student; Must have a minimum of 47 total earned hours; Must have a minimum cumulative GPA of 2.0; Must have completed BUA 380 with a grade of D or better or co-enrolled
BUA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	440	Strategic Management	Strategic formulation and administration of the total organization, including integrative analysis and strategic plan; interrelationship of business functional areas.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	441	Entrepreneurship and Feasibility	Assessment of the opportunities, risks, and challenges associated with business start-up and continued operation.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey Business BS student or West Global Mgt student with Prof status; 75 minimum earned hours
BUA	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-6	L	Pre-requisites: Must be an Honors student
BUA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-7		
BUA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-12		
BUE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
BUE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		

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BUE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	502	Organization and Management of Cooperative Programs	Work-study programs for business occupations in high schools and community colleges.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre Requisites: Must be Post-Bach UG, non-degree Grad or Degree Grad
BUE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BUE	480	Teaching Business Subjects	Organization and presentation of appropriate content for business subjects in the secondary school.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BUE	481	Technology in Business and Vocational Education	Emerging curricula and instructional technology in business and vocational education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BUE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
BUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
BUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
BUS	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
BUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-7		
BUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
BUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	0.5-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	0.5-12		
BUS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
BUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
BUS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
CBS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
CBS	520	Modeling and Computational Biology	Key mathematical and computational techniques for bioinformatics. Numerical and visualization software; scripting, database management.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		
CBS	521	Applications and Complex Problem Solving in Computational Biology	Continuation of CBS 520. Key mathematical concepts. Team solution of bioinformatics applications, project writing, and presentation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		
CBS	530	Introduction to Structural and Molecular Biology	Structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		

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CBS	540	Functional Genomics	Functional relevance of genomic sequences; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
CBS	572	Data Mining	Advanced data mining techniques: classification, clustering, association, preprocessing; performance evaluation; information assurance, Web mining, security and privacy issues, and other applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
CBS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
CBS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
CCS	300	Chicana and Chicano Culture and Society	Intensive analysis of how Mexican American writers, artists, film makers, entertainers, and academicians have interpreted aspects of the Chicana and Chicano experience.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
CCS	446	Teaching Chicana and Chicano Studies in the Schools	Approaches/techniques for infusion of Chicana and Chicano Studies content into elementary and secondary curriculum; designed for teachers who work with Chicana and Chicano students.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
CDE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Freshman Standing; Maximum 25 hours
CDE	232	Human Development	Lifespan development from conception through adulthood, with emphasis on family influences. Recognition of individuality within the universal pattern of development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
CDE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	337	Early Childhood Intervention	Explores how child development theory affects practice with children and families, emphasizing development of young children and early intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	338	Child Development Practicum	Supervised practicum in the Child Development Lab preparing students for work in child care centers and agencies serving young children and families. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	2-4		
CDE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	430	Infant/Toddler Development in the Family	Examines the development of infants/toddlers, the socialization processes of families, and the interactions of these processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
CDE	437	Infant Family Assessment and Observation	Examines strategies for implementing developmental assessments and observations of young children and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
CDE	444	Risk and Variation in Child Development	Impact that constitutional and environmental risk factors have on young children and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
CDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
CDE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CDE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
CDE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	531	Theoretical Issues in Child Development	Major developmental theories, related research, and their application to family interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	533	Research Issues in Child Development	In-depth exploration and critique of research focusing on child development in a family setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	534	Risk and Resilience in Children and Adolescents	Integrates child development, family theory, and research to understand risk and resilience in children and adolescents.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: CDE 531; FAS 500
CDE	570	Child Development for Infant Family Practice	Examines development during infancy and early childhood with an emphasis on social and emotional development, mental health, and early parent-child relationships.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	571	Infant Mental Health for Infant Family Practice	Surveys the biological and environmental risk factors that jeopardize the mental health of infants and young children; overview of prevention and intervention strategies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	572	Assessment of Infants, Toddlers, and Families for Infant Family Practice	Developmentally appropriate assessment of mental disorders and developmental disabilities in infants, toddlers, and preschool children and parent-child relationships.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	573	Cultural Competence for Infant Family Practice	Examines cultural issues impacting parent-child relationships and child rearing and the effectiveness of infant mental health and early intervention services on families of various ethnic and cultural backgrounds.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	574	Observation and Reflection for Infant-Family Practice	Strategies for observing infant behavior and parent-child relationships and skills for reflective, relationship-based intervention.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	575	Advanced Observation and Reflection for Infant-Family Practice	Advanced strategies for observing infant behavior and parent-child relationships and skills for reflective relationship-based intervention.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	576	Applied Research Methods for Infant Family Practice	Survey and critical examination of child development, parent-child relationships, family relationships, and early intervention research and the application to IFP.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
CDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		

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CDE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	634	Prevention and Child Development	Advanced training in research and theory-based approaches to developing and evaluating prevention programs for children at risk.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Prerequisite: CDE 534
CDE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
CDE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	THE	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
CDE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
CDE	232	Human Development	Lifespan development from conception through adulthood, with emphasis on family influences. Recognition of individuality within the universal pattern of development.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
CED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
CED	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	250	Career Development	Covers models of the individual, the world of work, and decision making with emphasis on individual application.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	L	
CED	294	Special Topic	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	L	Pre-requisites: Must be an Honors student
CED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-7		
CED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
CED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	512	Introduction to Helping Relationships	Introduces the skills used in the helping professions and examines the settings in which they occur.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CED	522	Theories of Counseling and Psychotherapy	Presents major theories of psychological intervention as well as underlying personality theory upon which they are based.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	523	Psychological Tests	Standardized tests in the study of the individual, with emphasis on test score interpretation in counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

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CED	525	Introduction to Program Evaluation	Introduces the major approaches and methods of designing and conducting program evaluations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: COE 501
CED	527	Community Counseling	Community focus with emphasis on outreach, prevention, psychoeducation, consulting, and advocacy from a systematic multicultural perspective.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	528	School Counseling	Introduces counseling within multicultural settings. Emphasizes counseling, consultation, and coordination skills needed for schools' comprehensive developmental guidance programs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	529	Lifespan Human Development	Issues and models of human development as it occurs across the lifespan.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CED	534	Occupations and Careers	The world of work, career development, education, and training for occupational entry and mobility.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	545	Analysis of the Individual	Theory and methods commonly used in studying the individual. Observational methods, diagnostic interviews, structured, and semi-structured methods for assessing personality.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	567	Group Dynamics and Counseling	Group process factors, theory, and diversity issues determining effective interaction in small groups. Emphasis placed on lectures, self awareness, and experiential components.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	577	Counseling Prepracticum	Focus on racial, social, and cultural factors in the development of helping relationships through integration of cognitive and affective self-awareness with counseling skills.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling Psychology MC or PhD student
CED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	655	Student Development Programs in Higher Education	Emerging conceptual models of student development. Overview of student personnel and student affairs programs in community colleges, four-year colleges, and universities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: must be a graduate student (non-degree or degree seeking)
CED	672	Marriage and Family Counseling	Introduces marriage and family counseling theories. Emphasizes a systems-communication model utilizing cocounseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student

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CED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	111	Exploration of Education	Education as an instrument in the development of the individual and society, and its significance as an American institution.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
CEE	100	Introduction to Civil and Environmental Engineering	Introduces basics of civil and environmental engineering design, team work, ethics, communication and management skills, modeling, problem solving, computer applications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	2.		Pre-requisites: Civil Engineering students only
CEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		
CEE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	210	Engineering Mechanics I: Statics	Force systems, resultants, equilibrium, distributed forces, area moments, fluid statics, internal forces, friction, and stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 100 with C or better; MAT 266 (or MAT 271) with C or better; PHY 121 with C or better; PHY 122 with C or better
CEE	212	Engineering Mechanics II: Dynamics	Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 210 and MAT 275 (or MAT 274) completed with C or better
CEE	213	Introduction to Deformable Solids	Strain-displacement and stress-strain-temperature relations. Stresses and deformations due to axial, shear, torsional and bending moments. Buckling, stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 210 (or CEE 211) with C or better; MAT 274 (or MAT 275) with C or better
CEE	281	Surveying	Theory and fieldwork in construction and land surveys. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	300	Engineering Business Practice	Engineering economic principles, cost/benefit analysis, project financing and delivery, management of engineering design, business practices, ethical and professional responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	L	Pre-requisites: BSE Civil Engineering student; CEE 213 with C or better
CEE	312	Engrg Materials		N	LEC	N	CNV	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	2.		

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CEE	321	Structural Analysis and Design	Statically determinate and indeterminate structures (trusses, beams, and frames) by classical and matrix methods. Introduces structural design. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 212 (or CEE 211) with C or better; CEE 213 with C or better; Pre- or Co-requisite: CEE 384 or MAE 384 (with C or better if completed)
CEE	341	Fluid Mechanics for Civil Engineers	Fundamental principles and methods of fluid mechanics forming the analytical basis for water resources engineering. Conduit and open channel flow. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 212 (or CEE 211) and CEE 213 with C or better; Pre- or Co-requisite: CEE 384 or MAE 384 (C or better if completed)
CEE	351	Geotechnical Engineering	Index properties and engineering characteristics of soils. Compaction, permeability and seepage, compressibility and settlement, and shear strength. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering student; CEE 213 with C or better
CEE	353	Civil Engineering Materials	Structure and behavior of civil engineering materials, including steel, aggregate, concrete, masonry, asphalt, wood, composites. Atomic structure and engineering applications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: BSE Civil Engineering student; CEE 213 with C or better
CEE	361	Introduction to Environmental Engineering	Concepts of air and water pollution; environmental regulation, risk assessment, chemistry, water quality modeling, water and wastewater treatment systems designs. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 213 with a C or better; CHM 114 or CHM 116 with a D or better; Pre- or Co-requisite: IEE 380 with D or better if completed
CEE	372	Transportation Engineering	Fundamental background of highway and traffic engineering in the areas of planning, design, and operations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: Civil Engineering BSE student; CEE 213 with C or better; Pre/Co-requisite: IEE 380
CEE	384	Numerical Methods for Engineers	Numerical methods and computational tools for selected problems in engineering. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	CS	Pre-requisites: Engineering BSE students; MAT 274 or MAT 275 & MAT 267 or MAT 272 (grade of C or better); MAT 267 or MAT 272 may be taken as a co-requisite. Credit for only CEE 384 or MAE 384
CEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	400	Earth Systems Engineering and Management	Introduces earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	(L or HU) & H	Pre-requisites: Civil and Environmental Engineering BS or BSE student; CEE 300 with C or better OR Non-CEE Juniors or Seniors
CEE	412	Pavement Analysis and Design	Design of flexible and rigid pavements for highways and airports. Surface, base, and subgrade courses. Cost analysis and pavement selection. Credit is allowed for only CEE 412 or 511.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; completed CEE 351 and CEE 353 with a grade of C or greater
CEE	420	Steel Structures	Behavior of structural components and systems. Design of steel members and connections. Load and resistance factor design methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better
CEE	421	Concrete Structures	Behavior of concrete structures and the design of reinforced and prestressed concrete members, including footings. Partial design of concrete building system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better
CEE	423	Structural Design	Analysis and design of reinforced concrete steel, masonry, and timber structures. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 421 with C or better; Pre/Co-requisite: CEE 420 (with C or better if completed)
CEE	432	Developing Software for Engineering Applications	Matrix and computer applications to structural engineering and structural mechanics. Stiffness and flexibility methods, finite elements, and differences.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 with a grade of C or greater
CEE	440	Engineering Hydrology	Descriptive hydrology; hydrologic cycle, models, and systems. Rain-runoff models. Hydrologic design. Concepts, properties, and basic equations of groundwater flow.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 341 with a grade of C or greater
CEE	441	Water Resources Engineering	Applies the principles of hydraulics and hydrology to the engineering of water resources projects; design and operation of water resources systems; water quality.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 341 with C or better
CEE	452	Foundations	Applies soil mechanics to foundation and retaining wall systems, including bearing capacity, settlement, and lateral earth pressure.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 351 with C or better
CEE	462	Unit Operations in Environmental Engineering	Design and operation of unit processes for water and wastewater treatment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 361 with C or better
CEE	466	Urban Water System Design	Capacity; planning and design of water supply; domestic and storm drainage; and solid waste systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 341 and 361 with C or better
CEE	467	Environmental Microbiology	Overview of the microbiology of natural and human-impacted environment, microbial detection methodologies, waterborne disease outbreaks, risk assessment, and regulations. Credit is allowed for only CEE 467 or 567. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 361 or MIC 220 with a grade of C or greater
CEE	469	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 361 or CHE 334 with a C or greater
CEE	474	Transportation Systems Planning	Transportation systems modeling procedures, travel characteristics analysis, traffic predictions, transportation systems management, and transit planning methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 372 and 384 with C or better
CEE	475	Highway Geometric Design	Design of visible elements of roadway, design controls, at-grade intersections, freeways, and interchanges. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 372 with a grade of C or greater
CEE	481	Civil Engineering Project Management	Civil engineering project management and administration, planning and scheduling, cost estimating and bidding strategies, financial management, quality control and safety, and computer applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better; CEE 351 with C or better; CEE 372 with C or better

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CEE	483	Highway Materials, Construction, and Quality	Properties of highway materials, including aggregates, asphalt concrete, and portland cement concrete; construction practice; material delivery, placement, and compaction; quality control. Credit is allowed for only CEE 483 or 583.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 351 and CEE 372 and CEE 353 with a grade of C or greater
CEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	486	Integrated Civil Engineering Design	Requires completion of a civil engineering design in a simulated practicing engineering environment. Limited to undergraduates in their final semester.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	L	Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 and CEE 341 and CEE 351 and CEE 361 and CEE 372 with a grade of D or greater or be currently enrolled
CEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-6		Pre-requisites: Honors students only
CEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-6	L	Pre-requisites: Engineering Honors students only
CEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-7		
CEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		
CEE	511	Pavement Analysis and Design	Design of flexible and rigid pavements for highways and airports. Surface, base, and subgrade courses. Cost analysis and pavement selection. Credit is allowed for only CEE 511 or 412.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Graduate Civil Engineering students only
CEE	512	Pavement Performance and Management	Pavement management systems, including data collection, evaluation, optimization, economic analysis, and computer applications for highway and airport design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Graduate Civil Engineering student
CEE	513	Pavement Evaluation, Maintenance, and Rehabilitation	Provides the necessary information for pavement engineers to evaluate, identify, and select reliable and cost-effective rehabilitation alternatives for existing Hot Mix Asphalt (HMA) and Portland Cement Concrete (PCC) pavements.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Must be a graduate student in Engineering
CEE	514	Bituminous Materials and Mixture	Types of bituminous materials used in pavement mixtures. Chemical composition, physical properties, desirable aggregate characteristics, optimum asphalt contents, superpave asphalt binder, mixture design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Graduate Civil Engineering student
CEE	515	Properties of Concrete	Materials science of concrete. Cement chemistry, mechanisms of hydration, interrelationships among micro- and macro-properties of cement-based materials. Mechanical properties, failure theories, fracture mechanics of concrete materials. Cement-based composite materials and the durability aspects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	516	Sustainable Energy and Material Use	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	521	Stress Analysis	Introduces tensors: kinematics, stress analysis, and constitutive assumptions leading to elastic and plastic behavior. Strain energy and energy methods; applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	522	Experimental Stress Analysis	Specification and analysis of stress and strain at a point, stress-strain relationships. Mechanical, optical, and electrical strain gages and circuits, digital data acquisition and analysis, closed loop mechanical testing, fracture mechanics, optical methods and photoelasticity, and introduction to nondestructive testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	524	Advanced Steel Structures	Strength properties of steel and their effects on structural behavior. Elastic design of steel structures. Plastic analysis and design of beams, frames, and bents. Plastic deflections. Plastic design requirements. Multistory buildings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	526	Finite Elements for Engineers	Direct stiffness, method of weighted residuals, weak formulation, and variational techniques in the solution of engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		Pre-requisite: Engineering CEE Graduate student
CEE	527	Advanced Concrete Structures	Ultimate strength design. Combined shear and torsion. Serviceability. Plastic analysis. Special systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student

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CEE	530	Prestressed Concrete	Materials and methods of prestressing. Analysis and design for flexure, shear, and torsion. Prestress losses due to friction, creep, shrinkage, and anchorage set. Statically indeterminate structures. Design of flat slabs, bridges, and composite beams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	532	Developing Software for Engineering Applications	Fundamentals of engineering software development and object-oriented programming. Programming in C++. Development of matrix toolbox. Introduces finite element method. Computer graphics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Engineering CEE Graduate Students Only
CEE	533	Structural Optimization	Linear and nonlinear programming. Problem formulation. Design sensitivity analysis. FEM-based optimal design of structural and mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	536	Structural Dynamics	Free vibration and forced response of discrete and continuous systems, exact and approximate methods of solution, response spectra, computational techniques, special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	537	Topics in Structural Engineering	Advanced topics, including nonlinear structural analysis, experimental stress analysis, advanced finite elements, plasticity and viscoelasticity, composites, and damage mechanics.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		Pre-requisites: Engineering CEE Graduate Students Only
CEE	540	Groundwater Hydrology	Physical properties of aquifers, well pumping, subsurface flow modeling, unsaturated flow, numerical methods, land subsidence, and groundwater pollution.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	541	Surface Water Hydrology	Hydrologic cycle and mechanisms, including precipitation, evaporation, and transpiration; hydrograph analysis; flood routing; statistical methods in hydrology and hydrologic design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	543	Water Resources Systems	Theory and application of quantitative planning methodologies for the design and operation of water resources systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	544	Water Policy and Management	Covers water policy and management focused on Arizona. Useful to anyone looking for a general background on water issues in Arizona or considering a career in water resources and environmental engineering, planning, or public policy. Divided into three major sections: the history of water resources development and hydrology of Arizona; water management in Arizona; and an examination of current issues and controversies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		You may not enroll in CEE 544 if you have credit in SOS 551
CEE	546	Free Surface Hydraulics	Derivation of 1-D equations used in open channel flow analysis; computations for uniform and nonuniform flows, unsteady flow, and flood routing. Mathematical and physical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	547	Principles of River Engineering	Uses of rivers, study of watershed, and channel processes. Sediment sources, yield, and control; hydrologic analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	548	Sedimentation Engineering	Introduces the transportation of granular sedimentary materials by moving fluids. Degradation, aggregation, and local scour in alluvial channels. Mathematical and physical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	550	Soil Behavior	Physicochemical aspects of soil behavior, stabilization of soils, and engineering properties of soils.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	551	Advanced Geotechnical Testing	Odometer, triaxial (static and cyclic) back pressure saturated and unsaturated samples, pore pressure measurements, closed-loop computer-controlled testing, in-situ testing, and sampling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	553	Advanced Soil Mechanics	Applies theories of elasticity and plasticity to soils, theories of consolidation, failure theories, and response to static and dynamic loading.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	554	Shear Strength and Slope Stability	Shear strength of saturated and unsaturated soils strength-deformation relationships, time-dependent strength parameters, effects of sampling, and advanced slope stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	555	Advanced Foundations	Deep foundations, braced excavations, anchored bulkheads, reinforced earth, and underpinning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	556	Seepage and Earth Dams	Transient and steady-state fluid flow through soil, confined and unconfined flow, pore water pressures, and application to earth dams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	557	Geoenvironmental Engineering	Environmental site assessment, solid waste management, waste containment system design, soil and groundwater remediation, soil erosion control, brownfields development.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	559	Earthquake Engineering	Characteristics of earthquake motions, selection of design earthquakes, site response analyses, seismic slope stability, and liquefaction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	560	Soil and Groundwater Remediation	Presents techniques for remediation of contaminated soils and groundwaters with basic engineering principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	561	Physical-Chemical Treatment of Water and Waste	Theory and design of physical and chemical processes for the treatment of water and wastewaters.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3-4		Pre-requisite: Engineering CEE Graduate student
CEE	562	Environmental Biochemistry and Waste Treatment	Theory and design of biological waste treatment systems. Pollution and environmental assimilation of wastes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3-4		Pre-requisite: Engineering CEE Graduate student

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CEE	563	Environmental Chemistry Laboratory	Analyzes water, domestic and industrial wastes, lab procedures for pollution evaluation, and the control of water and waste treatment processes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	564	Contaminant Fate and Transport	Fate and transport processes with emphasis on governing equations and parameters relevant to the migration of chemicals in the environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	566	Industrial/Hazardous Waste Treatment	Emphasizes treatment of local industrial/hazardous waste problems, including solvent recovery and metals.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	567	Environmental Microbiology	Overview of the microbiology of natural and human-impacted environment, microbial detection methodologies, waterborne disease outbreaks, risk assessment, and regulations. Credit is allowed for only CEE 567 or 467.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	568	Unit Processing in Environmental Engineering	Design and operation of unit processes for water and wastewater treatment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	569	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CEE 569 or 469.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	573	Transportation Operations	Driver, vehicle, and roadway characteristics; traffic control devices; traffic engineering studies; and transportation system management measures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	574	Highway Capacity	Highway capacity for all functional classes of highways. Traffic signalization, including traffic studies, warrants, cycle length, timing, phasing, and coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	576	Highway Geometric Design	Design of visible elements of roadway, design controls, at-grade intersections, freeways, and interchanges.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Engineering CEE Graduate student
CEE	581	Advanced Earth Systems Engineering and Management	Advanced introduction to earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	582	Industrial Ecology and Design for Sustainability	The conceptual, ethical, and practical challenges in the design, manufacture, and life cycle performance of products; environmental evaluation via materials flow analysis and life cycle assessment; global economic, environmental, cultural, and social aspects of competitive and functional product development and manufacture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student
CEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Engineering CEE Graduate student
CEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student
CEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1.		Pre-requisite: Civil Engineering MS or MSE student
CEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		Pre-requisite: Engineering CEE Graduate student
CEE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student

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CEE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering PhD student
CEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-15		Pre-requisite: Civil Engineering PhD student
CEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1.		Pre-requisite: Civil Engineering PhD student
CEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-15		Pre-requisite: Civil Engineering PhD student
CFA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-7		
CFA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-3		
CFA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CHE	100	Introduction to Chemical Engineering	Introduces design in chemical engineering, teaming, chemical engineering profession, computer models, communication skills, quality and customer satisfaction. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	2.		Pre-requisite: Ira A. Fulton School of Engineering and University College student
CHE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		

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CHE	211	Introduction to Chemical Processing	Applies chemical engineering analysis and problem solving to chemical processes material and energy balance methods and skills.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: CHM 116 with C or better; MAT 266 or MAT 271 with C or better
CHE	231	Introduction to Transport Phenomena I: Fluids	Transport phenomena, with emphasis on fluid systems. Credit is allowed for only CHE 231 or 501.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: CHE 211 with C or better; MAT 266 or MAT 271 with a C or better
CHE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-6		Pre-requisites: Honors students only
CHE	334	Introduction to Transport Phenomena II: Heat and Mass Transfer	Applies heat and mass transport principles. Design of heat exchangers and continuous contactors. Credit is allowed for only CHE 334 or 502.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 231 or 331 with C or better
CHE	342	Introduction to Applied Chemical Thermodynamics	Applies conservation and accounting principles with nonideal property estimation techniques. Credit is allowed for only CHE 342 or 504.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 211 or CHE 311 with C or better; Pre or Co-requisite: MAT 267 or MAT 272 (with C or better if completed)
CHE	352	Transport Laboratories	Introduces engineering lab equipment, data collection, and analysis; strengthens ability to generate written reports and oral presentations; reinforces teamwork skills; strengthens and extends the understanding of earlier technical contents in the curriculum. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	L	Pre-requisites: BS/BSE Engineering students
CHE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	432	Principles of Chemical Engineering Design	Multicomponent distillation, engineering economics, equipment sizing and costs, plant operation economics, and simulation and optimization techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student; CHE 334 and CHE 342 with a C or better OR Graduate Engineering student
CHE	433	Modern Separations	Design of modern separation equipment in chemical engineering other than fractionation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student; CHE 334 and CHE 342 with C or better
CHE	442	Introduction to Chemical Reactor Design	Applies kinetics to chemical reactor design. Credit is allowed for only CHE 442 or 505.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE students; CHE 334 and CHE 342 with a C or better OR Graduate Engineering students
CHE	451	Chemical Engineering Laboratory	Operation, control, and design of experimental and industrial process equipment; independent research projects. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 334 with C or better; CHE 342 with C or better; MAE 384 (or ECE 384) with C or better OR Graduate Engineering students
CHE	458	Semiconductor Material Processing	Introduces the processing and characterization of electronic materials for semiconductor applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE student; CHE 334 and CHE 342 with C or better OR Graduate Engineering student
CHE	461	Process Dynamic Control	Process dynamics, instrumentation, and feedback applied to automatic process control. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	CS	Pre-requisites: Engineering BS or BSE student; MAT 274 or MAT 275 with C or better; MAE 384 or CEE 384 with a C or better OR Graduate Engineering student
CHE	462	Process Design	Applies economic principles to optimize equipment selection and design; development and design of process systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	L	Pre-requisites: Engineering BS or BSE student; CHE 432, CHE 442 and CHE 433 with C or better OR Graduate Engineering student
CHE	469	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CHE 469 or 569.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	474	Chemical Engineering Design for the Environment	Conflict of processing materials and preserving the natural resources. Teaches students to understand and value the environment and attempt to control our impact.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; Must have completed CHE 334 and CHE 342 with a grade of C or better
CHE	475	Biochemical Engineering	Applies chemical engineering methods, mass transfer, thermodynamics, and transport phenomena to industrial biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisite: Engineering BSE student
CHE	476	Bioreaction Engineering	Principles of analysis and design of reactors for processing with cells and other biologically active materials; applies reaction engineering in biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student OR Graduate Engineering student
CHE	477	Bioseparation Processes	Principles of separation of biologically active chemicals; the application, scale-up, and design of separation processes in biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with a minimum GPA of 3.00 OR Graduate Engineering student
CHE	478	Industrial Water Quality Engineering	Chemical treatment processing, quality criteria and control, system design, and water pollutants.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; Must have completed CHE 231 or CHE 331 with a grade of C or greater; Seniors only
CHE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	490	Chemical Engineering Projects	Individual projects in chemical engineering operations and design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-5		Pre-requisite: Engineering BSE student
CHE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-6		Pre-requisites: Honors students only
CHE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-6	L	Pre-requisites: Honors students only
CHE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	496	Professional Seminar	Professional and ethical aspects with a discussion of responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		

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CHE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-7		Pre-requisites: Engineering BS or BSE student OR Graduate Engineering student
CHE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	501	Introduction to Transport Phenomena I: Fluids	Transport phenomena, with emphasis on fluid systems. Credit is allowed for only CHE 501 or 231.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	502	Introduction to Transport Phenomena II: Heat and Mass Transfer	Applies heat and mass transport principles. Design of heat exchangers and continuous contactors. Credit is allowed for only CHE 502 or 334.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	504	Introduction to Applied Chemical Thermodynamics	Applies conservation and accounting principles with nonideal property estimation techniques. Credit is allowed for only CHE 504 or 342.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	505	Introduction to Chemical Reactor Design	Applies kinetics to chemical reactor design. Credit is allowed for only CHE 505 or 442.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in MSE 518, EEE 518, or MSE 475 you may not enroll in CHE 518
CHE	527	Advanced Applied Mathematical Analysis in Chemical Engineering	Formulation and solution of complex mathematical relationships resulting from the description of physical problems in mass, energy, and momentum transfer and chemical kinetics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	533	Transport Processes I	Unified treatment of momentum, heat, and mass transfer from molecular theory, and continuum points of view. Continuum equations of microscopic and macroscopic systems and multicomponent and multiphase systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Graduate Engineering student
CHE	534	Transport Processes II	Continuation of BME 533 or CHE 533, emphasizing mass transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	536	Convective Mass Transfer	Turbulent flow for multicomponent systems, including chemical reactions with applications in separations and air pollution.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	543	Thermodynamics of Chemical Systems	Classical and statistical thermodynamics of nonideal physicochemical systems and processes; prediction of optimum operating conditions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Graduate Engineering student
CHE	544	Chemical Reactor Engineering	Reaction rates, thermodynamics, and transport principles applied to the design and operation of chemical reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	552	Industrial Water Quality Engineering	Water pollutants, quality criteria and control, chemical treatment processing, and system design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	553	Air Quality Control	Air pollutant origins, effects, and control. Physical and chemical processes, including dispersion, combustion, sampling, control equipment design, and special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	561	Advanced Process Control	Dynamic process representation, linear optimal control, optimal state reconstruction, and parameter and state estimation techniques for continuous and discrete time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	569	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CHE 569 or 469.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		

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CHE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		Pre-requisite: Graduate Engineering student
CHE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-15		
CHE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Chemical Engineering Program	1-15		
CHI	101	First-Year Chinese I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills. Standard dialect. 5 class hours. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
CHI	102	First-Year Chinese II	See CHI 101. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:Must have completed CHI 101 with a grade of D or better or be currently enrolled
CHI	120	Introduction to Chinese Culture	Introduces geographical, historical, literary, and intellectual premises of Chinese culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
CHI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	201	Second-Year Chinese I	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills. 5 class hours. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:Must have completed CHI 102 with a grade of D or better or currently enrolled
CHI	202	Second-Year Chinese II	See CHI 201. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:Must have completed CHI 201 with a grade of D or better or currently enrolled
CHI	205	Chinese Calligraphy	Introduces styles and techniques of Chinese writing. Requires no knowledge of Chinese or Japanese.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	301	Third-Year Chinese I	Expansion of proficiency in listening comprehension, speaking, reading, and writing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:CHI 202 with a grade of C or better or currently enrolled
CHI	302	Third-Year Chinese II	Continuation of CHI 301.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:CHI 301 with a grade of C or better or currently enrolled
CHI	307	Introduction to Literary Chinese I	Reading in various genres of pre-20th century literature (wen-yen), with analysis of the structure of the classical writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:CHI 302, or JPN 202, or KOR 202 with a grade of C or better or currently enrolled
CHI	308	Introduction to Literary Chinese II	Continuation of CHI 307.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:CHI 307 with a grade of C or better, or currently enrolled
CHI	309	Chinese Conversation	Aural/oral drills using contemporary stories, articles, and essays. For students with lower-level proficiency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites:Must have completed CHI 202 with a grade of D or better or currently enrolled
CHI	310	Chinese Conversation	See CHI 309.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites:CHI 202 with a grade of D or better or currently enrolled

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CHI	311	Chinese Conversation	Intensive aural/oral practice in modern Chinese. For students who have lived in China or a Chinese-speaking environment.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		
CHI	312	Chinese Conversation	See CHI 311.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites:CHI 202 with a grade of D or better or currently enrolled
CHI	321	Chinese Literature	Masterworks of the tradition from the 7th century BCE through the 13th century. Readings, lectures, and examinations are in English.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	
CHI	322	Chinese Literature	Masterpieces from the later tradition and its transition to modern times. Readings, lectures, and examinations are in English.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
CHI	345	Chinese Film and Civilization	Screening and discussion of recent films from China, Taiwan, and Hong Kong in the context of modern Chinese civilization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	380	The Chinese Language	Introduces the Chinese languages from linguistic perspectives. Topics include the linguistic structure and characteristics (phonetics, phonology, morphology and syntax) of the Chinese language; linguistic history and dialects of Chinese; and its relationship with culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	401	Fourth-Year Chinese I	Focuses on solidifying and improving students' knowledge of modern Mandarin. Emphasizes learning strategies to increase reading and listening comprehension, as well as further strengthening oral fluency and written skills. Surveys a wide variety of original text and media materials, in both full-form and simplified characters. Conducted in Chinese.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 with C or better
CHI	402	Fourth-Year Chinese II	Continuation of CHI 401.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 401 with C or better
CHI	407	Chinese for Professional Purposes I	Part of the Chinese Flagship program; course has a three-fold objective: (1) to improve language proficiency in all four language skills; (2) to support other Flagship courses by introducing specific vocabulary, literary genres, key reference materials; and (3) to develop the use of explicit language learning strategies that support professional-level literacy.	N	DIS	N	OP4	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 402 with a C or better
CHI	408	Chinese for Professional Purposes II	Part of the Chinese Flagship Program. Improves language proficiency in all four language skills; supports other Flagship courses by introducing specific vocabulary, literary genres, key reference materials; develops the use of explicit language learning strategies that supports professional level literacy. All course work in Mandarin Chinese.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 407 with C or better
CHI	430	Readings in Chinese Religions	Readings in Chinese religious texts, including Buddhism, Daoism, local religious cults, and others. May be repeated once for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 308 (CHI 414) with C or better
CHI	450	Classical Prose	Readings in classical prose forms, including guwen, sanwen, pianwen, fu, and incidental writings. Course content varies with instructor.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 308 with a grade of C or better
CHI	461	Classical Vernacular Performance Literature	Readings in performance literature in colloquial Chinese. Bianwen, zhugongdiao, baojuan, zaju, chuanqi drama.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 and CHI 307 with a grade of C or better
CHI	462	Readings in Traditional Xiaoshuo	Readings in the shorter and longer fiction of the late imperial period written in classical vernacular language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302, and CHI 308
CHI	470	Modern Chinese Literature and Culture	Readings in modern Chinese literary texts, including prose, fiction, and poetry. Course content changes with instructor.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 with a grade of C or better
CHI	482	History of the Chinese Language	Introduces the history of the Chinese language. Graduate/advanced undergraduate-level introductory course on the historical changes of the sounds, writing system, grammar, and other aspects of the Chinese language. Topics include the historical phonology of Chinese, development of graphs (Hanzi), some topics of syntactic changes in texts, morphology, lexicography, cultural implication of language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 and CHI 308
CHI	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
CHI	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
CHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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CHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
CHI	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	514	Advanced Classical Chinese	Close readings in selected premodern texts, with focus on special grammatical features, and increased vocabulary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	520	Teaching of Chinese as a Second Language	Theory and practice of teaching Chinese, including presentation, interaction, and evaluation, with consideration given to cultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	535	Advanced Readings	Readings in primary and secondary sources in history, art, religious studies, economics, or other fields.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	543	Chinese Language and Linguistics	Analysis and discussion, within the framework of linguistic theory, of selected problems in Chinese phonetics, morphology, and syntax.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	585	Problems of Translation	Theories and practice of translation: strategies for handling a variety of Chinese texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	684	Internship		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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CHI	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
CHI	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
CHI	101	First-Year Chinese I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills. Standard dialect. 5 class hours. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	5.		
CHI	102	First-Year Chinese II	See CHI 101. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	5.		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre/Co-requisites: CHM 231 with C or better
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		

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CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-requisites: CHM 237 with D or better; Co-requisites: CHM 234
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	
CHM	107	Chemistry and Society	General chemical principles and concepts presented in context of social and technological issues, e.g., energy, pollution, global warming, and others. This is a lecture course which may be combined with the laboratory CHM 108 for those interested in lab course credit. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Credit earned for CHM 101 and any combination of CHM 107 and 108 cannot be used simultaneously. General Studies: SQ (if taken with CHM 108) & G	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	SQ & G	
CHM	108	Chemistry and Society Laboratory	Experiments in chemical principles presented in chemistry and society lectures (CHM 107). Students must complete both CHM 107 and CHM 108 to receive an SQ (General Studies).	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisite: CHM 101 with C or better or ASU UPT with score of 75 or better or ALEKS with score of 50 or better or Pre or Co-requisite: MAT 170, MAT 210, MAT 251, MAT 265 or MAT 270 (with C or better if completed). Credit for CHM 113 or CHM 117 only
CHM	114	General Chemistry for Engineers	Chemical principles with emphasis toward engineering. Students without high school chemistry or chemical engineering majors must enroll in the CHM 113, 116 sequence instead of CHM 114. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisite: CHM 101 with D or better or ASU UMPT with score of 75 or better or ALEKS with score of 50 or better or Pre or Co-requisite: MAT 170, MAT 210, MAT 251, MAT 265 or MAT 270 (with D or better if completed)
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	
CHM	117	General Chemistry for Majors I	Atomic and molecular structure, properties and physical states of matter, chemical analysis, bonding, stoichiometry. Credit is allowed for only CHM 117 or 113. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisite: CHM 101 with C or better or 75 on ASU UMPT or 50 on ALEKS or pre-/corequisite of MAT 170 (or MAT 210, 251, 265, 270); LACHMBS, LACHMEBS, LACHMBA, LABCHBS, LABCHMBS, LABCHBA majors only. Credit for CHM 113 or CHM 117 only
CHM	118	General Chemistry for Majors II	Atomic and molecular structure, properties and physical states of matter, chemical analysis, bonding, stoichiometry. Credit is allowed for only CHM 118 or 115 or 116. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisites: CHM 117 with C or better. LACHMBS, LACHMEBS, LACHMBA, LABCHBS, LABCHMBS, LABCHBA majors only
CHM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
CHM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	SQ	
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 115, CHM 116 or CHM 118 with D or better
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 233 or CHM 333 with a C or better
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	SQ	Pre/Co-requisites: CHM 231 with C or better
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre- or Co-requisites: CHM 233 (C or better if completed)
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: CHM 237 with D or better; Co-requisites: CHM 234
CHM	240	Introduction to Physical Chemistry	Introduces mathematical/computational methods in chemical kinetics, thermodynamics, quantum chemistry. Mathematical-based computer lab. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	CS	Pre-requisites: MAT 272 or MAT 267 with C or better
CHM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		Pre-requisites: Must be an Honors student
CHM	302	Environmental Chemistry	Explores major environmental issues, problems, and solutions from analytical and chemistry perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		

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CHM	303	Environmental Chemistry Laboratory	Lab in environmental chemistry to complement CHM 302. First-hand experience with sampling methods, analytical techniques, and environmental lab methods. Both CHM 303 and CHM 348 must be taken to secure L General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.	L	Pre-requisites: CHM 302 with D or better, or co-enrolled in CHM 302
CHM	325	Analytical Chemistry	Principles and methods of chemical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	326	Analytical Chemistry Laboratory	Experiments in chemical analysis. Fee.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	327	Instrumental Analysis	Principles of instrumental methods in chemical analysis. Electroanalytical and optical techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 325 and CHM 326 with C or better; Pre/Co-requisite: CHM 346 with C or better if completed
CHM	328	Instrumental Analysis Laboratory	Experiments in chemical analysis by electroanalytical and optical techniques. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		Pre-requisites: CHM 327 with a D or better, or be co-enrolled in CHM 327
CHM	332	General Organic Chemistry	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	333	Organic Chemistry for Majors I	Structures, reaction mechanisms and kinetics, and systematic syntheses of organic compounds. Credit is allowed for only CHM 333 or 231 or 233.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: Must be a Biochemistry or Chemistry student
CHM	334	Organic Chemistry for Majors II	Continuation of CHM 333. Credit is allowed for only CHM 334 or 234.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 333 with a C or better; Co-requisites: CHM 338
CHM	336	General Organic Chemistry Laboratory	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	337	Organic Chemistry Laboratory for Majors I	Emphasizes mechanisms, kinetics, and products of organic reactions. Credit is allowed for only CHM 337 or 237. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Must be a Biochemistry or Chemistry student; and be co-enrolled in CHM 333
CHM	338	Organic Chemistry Laboratory for Majors II	Continuation of CHM 337. Credit is allowed for only CHM 338 or 238. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Biochemistry or Chemistry student; CHM 337 with C or better; Co-requisites: CHM 334
CHM	341	Elementary Physical Chemistry	Thermodynamics, equilibrium, states of matter, solutions, and chemical kinetics. For students in premedical, biological, and educational curricula.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 114, 116 or 118 with C or better; CHM 231, 233 or 333 with C or better; MAT 210, 251, 265 or 270 with C or better; PHY 101, 112 or 131 with C or better.
CHM	343	Physical Chemistry Laboratory	Physical chemistry experiments. Credit is allowed for only CHM 343 or both CHM 348 and 349. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Must be co-enrolled in CHM 341
CHM	345	Physical Chemistry I	Introduces quantum chemistry with application to electronic structure and dynamics of atoms and molecules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Prerequisites: CHM 240 with C or better or both MAT 272 and 274 with C or better
CHM	346	Physical Chemistry II	Introduces equilibrium and statistical thermodynamics. Laws of thermodynamics, equations of state, multicomponent chemical and phase equilibria, and electrochemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 345 with C or better
CHM	348	Physical Chemistry Laboratory I	Lab experiments in spectroscopy and computational chemistry. fee. To secure L General Studies credit the following must be taken: CHM 303 & CHM 348 or CHM 348 & CHM 349 & CHM 452.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	L	Pre/Co-requisite: CHM 345 with a C or better if completed
CHM	349	Physical Chemistry Laboratory II	Lab experiments in thermodynamics, electrochemistry, and computational chemistry. CHM 348, CHM 349 and CHM 452 must be taken to secure L General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	L	Pre/Co-requisites: CHM 346 with C or better if completed
CHM	392	Introduction to Research Techniques	Instrumental methods and philosophy of research by actual participation in chemical research projects. May be repeated for a total of 6 semester hours.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
CHM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	424	Separation Science	Basic theory and practical aspects of gas, liquid, ion-exchange, and gel-permeation chromatographies, and other important industrial and research techniques. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	433	Advanced Organic Chemistry I	Reaction mechanisms, reaction kinetics, linear free energy relationships, transition state theory, and Woodward-Hoffmann rules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	434	Advanced Organic Chemistry II	Continuation of CHM 433.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 433 or CHM 531 with C or better
CHM	435	Medicinal Chemistry	Principles of medicinal and pharmaceutical chemistry. Drug design, synthesis, and mechanism of action.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: BCH 361 (or BCH 461), BIO 353 and CHM 234 (or CHM 334) with a C or better; You may not enroll in CHM 435 if you have credit for CHM 535
CHM	452	Inorganic Chemistry Laboratory	Preparation and characterization of typical inorganic substances, emphasizing methods and techniques. CHM 348, CHM 349 and CHM 452 must be taken to secure L General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-2	L	Pre-requisites: CHM 453 with a D or better, or be co-enrolled in CHM 453
CHM	453	Inorganic Chemistry	Principles and applications of inorganic chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 341 or CHM 346 with C or better
CHM	460	Biological Chemistry	Structure and function of macromolecules and their involvement in the processing of energy and information by living cells.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 234 (or 334) with C or better; CHM 346 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	471	Solid-State Chemistry	Crystal chemistry, thermodynamics and electrochemistry of solids, nonstoichiometric compounds, diffusion and solid-state reactions, crystal growth, and selected topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	480	Methods of Teaching Chemistry	Organization and presentation of appropriate content of chemistry; preparation of reagents, experiments, and demonstrations; organization of stock rooms and laboratories; experience in problem solving. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	481	Geochemistry	Origin and distribution of the chemical elements. Geochemical cycles operating in the Earth's atmosphere, hydrosphere, and lithosphere.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 341(or 346) or GLG 321 with C or better
CHM	483	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	485	Meteorites and Cosmochemistry	Chemistry of meteorites and their relationship to the origin of the Earth, solar system, and universe.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		Pre-requisites: Must be an Honors student
CHM	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6	L	Pre-requisites: Must be an Honors student
CHM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		
CHM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-7		
CHM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
CHM	501	Current Topics in Chemistry	May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	521	Chemometrics	Overview of chemometric tools in analytical chemistry, including multivariate calibration, spectral deconvolution, and experimental design.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	523	Advanced Analytical Chemistry	Theoretical principles of analytical instrumentation and measurements.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	524	Separation Science	Addresses principles and applications for all areas of chemical separations. Emphasizes separations principles in microfluidics and its interface with nanotechnology and traditional electronic materials.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	525	Analytical Spectroscopy	Theoretical and practical considerations involving the use of optical instruments for chemical analyses.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.		
CHM	527	Electroanalytical Chemistry	Theoretical and practical considerations for modern electroanalytical chemistry, including voltammetry, potentiometry, and microelectrode analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.		Pre-requisites: CHM 346 with C or better. Credit is allowed for only CHM 527 or NAN 527
CHM	531	Advanced Organic Chemistry I	Reaction mechanisms, reaction kinetics, linear free energy relationships, transition state theory, molecular orbital theory, and Woodward-Hoffmann rules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	532	Advanced Organic Chemistry II	Organic mechanisms, thermodynamic and kinetic control, structure/activity relationships, isotope effects, multistep reactions, reactive intermediates, radical reactions, electron transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	535	Medicinal Chemistry	Principles of medicinal and pharmaceutical chemistry. Drug design, synthesis, and mechanism of action.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Students may not enroll in CHM 535 who have credit in CHM 435
CHM	537	Organic Reactions	Organic synthetic methodologies and important synthetic reactions emphasizing recently discovered reactions of preparative value. Protection/deprotection synthetic strategies; peptide synthesis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	541	Advanced Thermodynamics	Equilibrium thermodynamics. Chemical reactions, phase equilibria, and stability in multicomponent systems. Aqueous solutions and electrochemistry. Introduces statistical thermodynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Credit is allowed for only CHM 541 or MSE 524
CHM	543	Computational Chemistry	Provides basic concepts and practical experience in computational chemistry. Covers electronic structure methods and computer simulation techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	545	Quantum Chemistry	Wave and matrix formulation of quantum mechanics applied to the vibrational, rotational, and electronic states of polyatomic molecules. Hartree-Fock, electron correlation, and molecular orbital theory. Selection rules and introduction to group theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	546	Molecular Spectroscopy and Group Theory	Applies quantum mechanics to the general problem of the interaction of light with molecular systems. Angular momentum and group theory. Symmetry classifications. Overview of the formalism and experimental techniques in different resonant-based spectroscopies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	548	Chemical Kinetics and Dynamics	Experimental and theoretical aspects of time-dependent processes in chemistry. Topics include kinetics of chemical reactions, diffusion, and relaxation phenomena in ordered and disordered materials.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	549	Advanced Topics in Physical Chemistry	Various advanced and special topics in physical chemistry. Previous topics included: supercooled liquids and the glass transition, vibrational spectroscopy of solids, phase transitions and critical phenomena. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	552	Advanced Inorganic and Materials Synthesis Laboratory	Preparation and characterization of inorganic compounds and materials, emphasizing advanced methods and techniques of importance in inorganic and materials chemistry. Schlenk-line and glovebox manipulations, solvothermal syntheses, and gas-phase reactions.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		
CHM	553	Advanced Inorganic Chemistry	Principles of modern inorganic chemistry applied over the entire periodic system. Bonding theory, chemical reactivity, spectroscopic and magnetic properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	571	Structure, Bonding, and Symmetry in Materials	Principles of structural and materials chemistry, emphasizing crystal chemistry. Symmetry of periodic structures (space groups), factors determining bond lengths and coordination geometries, and the role of structure in determining physical properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	579	Topics in Inorganic and Materials Chemistry	May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	582	Topics in Geochemistry and Cosmochemistry	Topics of current interest for students in chemistry and other fields. Sampling of data and thought concerning phase equilibria, element distribution, meteorites, the Earth, and other planets. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		

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CHM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-15		
CHM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-15		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	Pre-requisites: CHM 113 or CHM 117 with C or better
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	325	Analytical Chemistry	Principles and methods of chemical analysis.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	326	Analytical Chemistry Laboratory	Experiments in chemical analysis. Fee.	N	REC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	327	Instrumental Analysis	Principles of instrumental methods in chemical analysis. Electroanalytical and optical techniques.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	328	Instrumental Analysis Laboratory	Experiments in chemical analysis by electroanalytical and optical techniques. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	2.		
CHM	332	General Organic Chemistry	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	336	General Organic Chemistry Laboratory	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
CHM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		

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CHM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	107	Chemistry and Society	General chemical principles and concepts presented in context of social and technological issues, e.g., energy, pollution, global warming, and others. This is a lecture course which may be combined with the laboratory CHM 108 for those interested in lab course credit. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Credit earned for CHM 101 and any combination of CHM 107 and 108 cannot be used simultaneously. General Studies: SQ (if taken with CHM 108) & G	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SQ & G	
CHM	108	Chemistry and Society Laboratory	Experiments in chemical principles presented in chemistry and society lectures (CHM 107). Students must complete both CHM 107 and CHM 108 to receive an SQ (General Studies).	N	LAB	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SQ	
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SQ	
CHM	480	Methods of Teaching Chemistry	Organization and presentation of appropriate content of chemistry; preparation of reagents, experiments, and demonstrations; organization of stock rooms and laboratories; experience in problem solving. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
CHP	500	Research Methods	Course on research methods in a specific discipline.	Y	DIS	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
CHP	501	Community Health Assessment and Analysis	Provides theory and practice in community assessment and analysis applicable to community health practice.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing (Comm Health Nursing) or Nursing (Comm Health Adv Prac) student; CHP 500 with B or better; Co-requisite: NUR 581
CHP	502	Community Health Program Planning and Evaluation	Utilizes planning and evaluation theory in planning programs to meet identified health needs of communities.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing (Comm Health Adv Prac) student; CHP 501 with B or better
CHP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
CIM	105	Introduction to the Concrete Industry	Overview of the history, career opportunities, job functions, and professional organizations in the concrete industry.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	2.		
CIM	106	Fundamentals of Concrete: Properties and Testing	Examines effects of concrete-making materials on the properties of fresh and hardened concrete. Concrete mixture proportioning calculations and analysis.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: CIM 105 with C or better; Co-requisite: STP 226
CIM	205	Concrete Construction Methods	Forming, shoring, placing and reinforcing operations. Transporting, placing, consolidating, finishing, jointing, and curing concrete for foundations and other structural members.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CIM 106 with C or better; CON 252
CIM	206	Application of Concrete in Construction	Detailed study of the many uses of concrete in the construction of buildings, pavements, and other facilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CIM 205 with C or better; CON 243 with C or better
CIM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CIM	305	Management of Concrete Products: Ordering and Delivering	Basic understanding of managing the order and delivery process common to all concrete products.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 206 with C or better; CON 221 with C or better
CIM	306	Management of Concrete Products: Production Facilities	Detailed study of the many uses of concrete in the construction of buildings, pavements, and other facilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 305 and CON 251 with C or better; CON 271
CIM	405	Concrete Problems: Diagnosis, Prevention, and Dispute	Diagnose and prevent problems related to concrete production, testing, construction, and performance.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 206 with C or better

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CIM	406	Concrete Industry Management Capstone	Intensive study of a problem appropriate to the major and the student's career interests. Lecture, student presentations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisites: Construction BS student; CIM 405 with C or better; COM 225
CIM	420	Senior Concrete Lab	Reintroduces fundamental lab procedures as well as advanced testing methods. Collect data, search for literature, analyze and report on conclusions.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Conctruction BS student; CIM 405 with C or better
CIM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CIS	105	Computer Applications and Information Technology	Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.	CS	
CIS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-3		
CIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		
CIS	220	Programming Concepts for Accountancy Majors	Introduces business computer programming. Uses programming languages such as Visual BASIC to teach proper programming style and practice. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		
CIS	235	Introduction to Information Systems	Survey course introducing the competitive and strategic uses of information systems, how information systems are transforming organizations and their management, and the issues, difficulties, and opportunities facing the technology professional and business manager today. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: must have completed CIS 105 or 200 or 220 with a C or greater or be currently enrolled; AND must have completed MAT 210 or 270 or 211 or 271 with a C or greater or be currently enrolled.
CIS	236	Honors Introduction to Information Systems	Introduces strategic leveraging of IS solutions and surveys different facets of IS in order to gain an understanding of how business problems are addressed and opportunities realized.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.	CS	Pre-requisites: Must be an Honors student
CIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Accountancy or Computer Information Systems BS or PRE student
CIS	300	Web Design and Development	Focuses on Web site development, including target audience, image presentation, page/content topic organization, site navigational functionality, implementation needs, and future needs. Web site design and development practice using business software products.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: Minimum 2.0 ASU cumulative GPA AND minimum 56 earned hours, OR be post-bacc undergraduate, or be non-degree seeking student or be graduate student.
CIS	335	Visual Paradigms for Information Systems Development	Uses visual programming languages such as Visual BASIC to implement data structures, file structures, and interfaces in business information systems. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: W. P. Carey ACC BS student having completed CIS 220 OR CIS BS student having completed CSE 100, AND ACC 241 AND ECN 221 with a grade of C or greater
CIS	340	Object-Oriented Modeling and Programming	Object-oriented modeling of business information systems. Abstract data types and object-oriented programming using a language such as C#. Fee.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: Must be W. P. Carey CIS BS student; AND must have completed ACC 241, CIS 235 or CIS 236, CSE 181 or 182, ECN 221 with a C or greater
CIS	360	Business Database Concepts	Database theory, design, and application, including the entity-relationship model; the relational, hierarchical, and network database models; and query languages. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: W. P. Carey Accountancy BS student, and CIS 105 or CIS 220, ACC 231 and ACC 241 with a grade of C or better; OR W. P. Carey Computer Information Systems BS student, and CIS 235 with a grade of C or better.
CIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Min 2.0 ASU cum GPA and min 56 earned hours, OR be post-bacc undergraduate, or be non-degree seeking student or be graduate student.
CIS	425	Electronic Commerce Strategy	Key business strategies and technology elements of contemporary electronic commerce. Covers Web design and interactions between Web pages and databases. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: W. P. Carey Accountancy BS or Computer Information Systems BS student; CIS 360 with C or better
CIS	430	Networks and Distributed Systems	Advanced topics such as communications protocols, distributed systems, network security and client-server systems; applications based on platforms such as.NET and networked UNIX. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: W. P. Carey Computer Information Systems student; ACC 330 or 444; CIS 340 or 410 with C or better; Pre/Co-requisite: CIS 360
CIS	440	Systems Design and Electronic Commerce	Systems design for organizational and electronic commerce systems; use of project management and systems analysis and design tools.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.	L	Pre-requisites: W.P. Carey Computer Information Systems BS student; CIS 360 and CIS 430 with C or better
CIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: W.P. Carey CIS BS student
CIS	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Information Systems	1-6		
CIS	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Information Systems	1-6	L	Pre-requisites: Must be an Honors student
CIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: W.P. Carey ACC BS or CIS BS student
CIS	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-6		
CIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-7		Pre-requisites: W.P. Carey CIS BS student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-3		Pre-requisites: W.P. Carey CIS BS student
CIS	502	Information Systems	Organizational, strategic, and technical issues of the management of information. Evaluation, design, and use information systems as competitive advantage.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: W.P.Carey MBA student
CIS	505	Object-Oriented Modeling and Programming	Object-oriented modeling of business information systems, abstract data types and object-oriented programming using a visual language.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey graduate students only
CIS	506	Business Database Systems	Hierarchical, network, relational, and other recent data models for database systems. Processing issues such as concurrency control, query optimization, and distributed processing.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	512	Intelligent Decision Systems and Knowledge Management	Definition, description, construction, and evaluation of computer-based decision systems.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	515	Management Information Systems	Systems theory concepts applied to the collection, retention, and dissemination of information for management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	520	Systems Design and Evaluation	Methodologies of systems analysis and design. Issues include project management, interface, organizational requirements, constraints, documentation, implementation, control, and performance evaluation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	530	Information Systems Development	Object-oriented and interprocess communication and control concepts for information systems; applications based on languages such as C++ and platforms such as networked UNIX.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	535	Distributed and Mixed-Media Information Systems	Modern communications protocols for wireless and mobile computing, overview of network and distributed database management systems, overview of storage and multimedia delivery issues, and shared virtual reality technologies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: Specific W.P. Carey Graduate student
CIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: Specific W.P. Carey Graduate student
CIS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		

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CIS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: W.P. Carey Info Systems PhD student
CIS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-15		
CIS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Information Systems	1-15		
CIS	105	Computer Applications and Information Technology	Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	CS	
CLS	100	Introduction to Clinical Laboratory Sciences	Introduces the field of clinical laboratory sciences. Required for Clinical Laboratory Sciences majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
CLS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
CLS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
CLS	310	Principles of Clinical Chemistry I	Theory and application of principles of clinical chemistry, with emphasis on lab techniques, pathophysiology, methods of analysis, and assessment of procedure. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
CLS	320	Principles of Clinical Microbiology I	Theory and application of principles of clinical microbiology with emphasis on isolation and identification of medically significant fungi and bacteria. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
CLS	330	Principles of Clinical Hematology I/Body Fluids	Theory and application of principles in hematology, with emphasis on techniques to evaluate blood dyscrasias and analyze body fluids.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
CLS	410	Principles of Clinical Chemistry II	Continuation of CLS 310 with emphasis on principles of advanced clinical chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
CLS	411	Advanced Applications of Clinical Chemistry	Clinical application of theory/techniques from CLS 310 and 410. Emphasizes operation of common lab instrumentation and clinical correlation. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	420	Principles of Clinical Microbiology II	Disease mechanisms and identification of medically significant parasites, Mycobacteria, Actinomycetes, Chlamydia, Rickettsia, Mycoplasma, and viruses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
CLS	421	Advanced Applications of Clinical Microbiology	Practical lab application of the principles of specimen collection, processing, detection, identification, and antimicrobial testing of medically significant bacteria, fungi, and parasites. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	430	Principles of Clinical Hematology II/Hemostasis	Theory and applications of principles in hematology with emphasis on etiology, pathophysiology, clinical manifestations, and treatment of blood dyscrasias/hemostatic defects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		

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CLS	431	Advanced Applications of Clinical Hematology	Practical lab application of methods/techniques used to evaluate and diagnose blood dyscrasias/hemostatic defects. Applied techniques in body fluid analysis. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	440	Principles of Clinical Immunology/Immunohematology	Theoretical and practical application of clinical immunology and immunohematology. Emphasizes serological techniques that aid disease diagnosis and blood donor selection.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	441	Advanced Applications of Clinical Immunology/Immunohematology	Practical lab application of the principles of serological methods used in diagnosing disease and selecting blood components for transfusion therapy. Minimum 135 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
CLS	450	Principles of Clinical Laboratory Administration	Principles of management, emphasizing the clinical lab. Basic management process, personnel supervision, identification, and allocation of resources. Both CLS 450 and 460 must be taken to secure L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	
CLS	460	Principles of Clinical Laboratory Education	Principles of learning, with application to the development of instructional objectives, strategies, and evaluation for teaching-learning situations in the lab. Both CLS 450 and 460 must be taken to secure L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	
CLS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
CMN	551	Democracy and Power in Organizations	Examines structural, historical, relational, and symbolic dimensions of organizational communication and discourses that foster or impede communication advocacy.	N	LEC	N	OPT	INACTIVECollege Human Services	INACTIVE Department of Communication Studies	3.		Pre-requisites: Communication Studies Master of Arts student; CMN 502 or COM 502 with C or better
CMN	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	124	Media and Culture	Introduces contemporary intercultural issues as expressed through various media in American society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	C	
CMN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
CMN	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites:Must have completed ENG 101, or ENG 105 with a grade of C or greater
CMN	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and purposeful organization of public communication. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Prerequisites:Must have completed ENG 101 or 105 with a grade of C or greater
CMN	230	Small Group Communication	Principles and processes of small group communication, attitudes and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
CMN	308	Empirical Research Methods in Communication	Examines social science approaches to the study of communication, including experimental, survey, descriptive, and other quantitative approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: ENG 101 or 105 completed with C or better; Cumulative GPA of 2.0 or greater; Students majoring in Communication on the Tempe campus should take COM 308
CMN	309	Rhetorical, Interpretive, and Critical Methods in Communication	Examines humanistic and qualitative approaches to communication. Introduces textual, interactional and ethnographic methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have GPA of 2.0 or greater
CMN	310	Relational Communication	Examines communication processes as they relate to relationship development, maintenance, and termination.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Must have a GPA of 2.0 or greater
CMN	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: must have a GPA of 2.0 or greater
CMN	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	C	Pre-requisites: Must have a GPA of 2.0 or greater
CMN	320	Communication and Consumerism	Critical evaluation of messages designed for public consumption. Perceiving, evaluating, and responding to political, social, and commercial communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: must have a GPA of 2.0 or greater
CMN	321	Rhetorical Theory and Research	Historical development of rhetorical theory and research in communication, from classical antiquity to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or HU	Pre-requisites: must have a GPA of 2.0 or greater;and completed ENG 101 or 105 with a C or greater
CMN	324	Rhetoric and Media Criticism	Critical examination of media arts, including cinema, television, and video. Applies rhetorical, textual, and interpretive methods of criticism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	325	Advanced Public Speaking	Social and pragmatic aspects of public speaking as a communicative system; strategies of rhetorical theory and the presentation of forms of public communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater
CMN	329	Persuasion	Variables that influence and modify attitudes and behaviors of message receivers, including analysis of theories, research, and current problems.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater

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CMN	353	Professional Communication	Introduces both verbal and written professional communication styles and technologies in preparation for communication-related internships and careers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	371	Cross-Cultural Communication Perspectives	Explores different cultures' approaches to theories of and practices in social interaction and public discourse.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater
CMN	382	Classroom Apprenticeship	Nongraded credit for students extending their experience with a content area by assisting with classroom supervision in other CMN courses. Maximum 3 semester hours each semester.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
CMN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisites: must have a GPA of 2.0 or greater
CMN	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: must have GPA of 2.0 or greater.
CMN	414	Crisis Communication	Role of communication in crisis development and intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater
CMN	416	Gender, Race, Colonialism, and Media	Explores how the mass media constructs gender and race and perpetuates colonial views of minorities and varied nationalities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	417	Communication and Aging	Critical study of changes in human communicative patterns through the later adult years, with attention on intergenerational relationships and self-concept functions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	421	Rhetoric of Social Issues	Critical rhetorical study of significant speakers and speeches on social issues of the past and present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU	Pre-requisites: must have a GPA of 2.0 AND have completed CMN 321 with a C or greater, or be currently enrolled in CMN 321
CMN	422	Advanced Argumentation	Advanced study of argumentation theories and research as applied to public forums including: political, business, and legal contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: Must be a Junior and have a GPA of 2.0 or greater, AND completed ENG 101 or 105 with a grade of C or greater
CMN	424	Television Studies and Criticism	Surveys critical and historical approaches to television as a medium; to television research; and to television's effects.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater or be currently enrolled.
CMN	429	Semiotics and Visual Communication	Semiotic analysis of mediated forms of communication, including film, television, and photography. Includes the political and aesthetic dimensions of images.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater or be currently enrolled.
CMN	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater
CMN	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	451	Employee Participation Processes in Organizations	Communication principles and practices associated with employee empowerment, team-based organizing, and similar employee involvement processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater AND be enrolled in CMN 308 OR 309 or completed CMN 308 or 309 with a grade of C or greater.
CMN	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	454	Rhetorical and Critical Approaches to Public Relations	An historical and contemporary account of how public relations messages build corporate identities and persuade audiences by shaping public values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater or be currently enrolled in CMN 309.
CMN	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate and image creation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	457	New Media	Explores how new communication and information technologies affect communication and culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater.
CMN	463	Cultural and Intercultural Communication Theory and Research	Survey and analysis of major theories and research dealing with communication within cultures and between people of different cultural backgrounds.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: CMN 308 or 309 (or COM 308 or COM 309) with C or better or currently enrolled
CMN	465	Intercultural Communication Workshop	Experientially based study of communication among members of different cultures designed to help students improve their intercultural communication skills.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
CMN	471	International Communication	Explores the political, economic, sociocultural, and communicative dimensions of mediated communication across borders and the processes of globalization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	Pre-requisites: Minimum 2.0 GPA; CMN 463 or COM 463 with C or better
CMN	475	Nonverbal Communication Theory and Research	Critical study of theories and research concerning nonlinguistic aspects of communication. Examines functions of nonverbal behaviors in various communication contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
CMN	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
CMN	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student

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CMN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
CMN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
CMN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
CMN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
CMN	502	Theory and Practice in Communication and Persuasion	Theoretical exploration of communicative and persuasive practices as applied in various contexts. Surveys classical, modern, and contemporary theories of persuasion.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	505	Methods in Applied Communication Research	Examines the intellectual, practical, and ethical dimensions of engaging in applied research. Emphasizes empirical and quantitative methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	506	Humanistic Inquiry and Field Research in Communication	Examines interpretive, critical, and rhetorical approaches to communication and advocacy, including hermeneutics, ethnography, and cultural studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	515	Ethical Issues in Communication Advocacy	Examines the ethical issues or concerns related to communication advocacy. Variable topics; examines research, theory, and/or practice.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	516	Mediation and Dispute Resolution	Examines advocacy's role in fair negotiation and effective and successful dispute resolution. Examines research, theory, and/or practice.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	520	Communication Campaigns	Explores public communication strategies aimed at advocating for general or specific audiences and/or for particular issues and causes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Communication Studies Master of Arts student; CMN 502 or COM 502 with C or better
CMN	522	Argumentation and Advocacy	Introduces various models of argumentation and their applications to various spheres of advocacy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	531	Communication and Social Change	Examines human communication and technologies of communication as agents of social change within groups, communities, organizations, and/or cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	532	Advocacy in Interpersonal Settings	Examines particular relational contexts in which advocacy plays a pronounced role (e.g., personal, family, and service provider relationships).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	550	Advocacy in Organizational Settings	Examines issues of upward influence, the expression of dissent, and grievance systems within organizational contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	557	Communication and Technology	Assesses technology's role in the social dynamics of human interaction. Emphasizes the impact of technology with regard to communication advocacy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	565	Globalization and Advocacy	Explores the forces leading to increased intergroup contact and their impact on social, economic, and political dynamics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	570	Communication and Advocacy in Social Context	Variable topics course exploring the intersection of communication and advocacy in specific contexts not addressed in other elective courses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
CMN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		Pre-requisite: Communication Studies Master of Arts student
CMN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	RSC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CMN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1.		Pre-requisite: Communication Studies Master of Arts student
CMN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisite: Communication Studies Master of Arts student
CMN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		Pre-requisite: Communication Studies Master of Arts student
COE	501	Introduction to Research and Evaluaton in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	502	Introduction to Data Analysis	Descriptive statistics, visual approaches, estimation, and inferential methods for univariate and bivariate educational research problems. Experience using statistical software.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	503	Introduction to Qualitative Research	Terminology, historical development, approaches (including ethnography, ethnomethodology, critical theory, grounded theory, and hermeneutics), and qualitative versus quantitative social sciences; methods of inquiry.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
COE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		
COE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		
COE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
COE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
COE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
COE	501	Introduction to Research and Evaluaton in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
COE	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	
COM	110	Elements of Interpersonal Communication	Demonstration and practice of communicative techniques in establishing and maintaining interpersonal relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a GPA of greater than or equal to 2.25
COM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisite: Maximum 24 earned hours
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a GPA of greater than or equal to 2.50
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: must have completed ENG101, ENG105, or ENG107 with a grade of C or greater
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	263	Elements of Intercultural Communication	Basic concepts, principles, and skills for improving communication among persons from different minority, racial, ethnic, and cultural backgrounds.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C & G	Pre-requisite: Minimum 2.25 GPA
COM	271	Voice Improvement	Intensive personal and group experience to improve normal vocal usage, including articulation and pronunciation.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	281	Communication Activities	Nongraded participation in forensics or interpretation cocurricular activities. Maximum 3 semester hours each semester.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		
COM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	298	Honors Directed Study		N	PRA	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		Pre-requisites: Must be an Honor student
COM	300	Communication in Interdisciplinary Studies	Examines and analyzes communication in the context of other academic disciplines. Open to BIS majors only.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: BIS student; Minimum Sophomore standing; Minimum 2.00 GPA; COM 100 and COM 225 with C or better or COM 259 with C or better
COM	301	Introductory Theories and Principles of Communication: Communication in Relationships, Organizations	Integrated introduction to the theories and principles of communication in public, interpersonal, and organizational contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3-9		
COM	308	Advanced Research Methods in Communication	Advanced communication research methods, including quantitative, qualitative, and critical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: Must have a GPA of 2.5 or greater; Must have completed COM 207 with a grade of C or greater; Must have completed a Math pre-requisite
COM	310	Relational Communication	Explores communication issues in the development of personal relationships. Current topics concerning communication in friendship, romantic, and work relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 with C or better
COM	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a GPA of 2.50 or greater; Must have completed COM 100 with a grade of C or greater
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	317	Nonverbal Communication	Study of communication using space, time, movement, facial expression, touch, appearance, smell, environment, objects, voice, and gender/cultural variables. Not open to students with credit in COM 294 ST: Beyond Words.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA of 2.50 or greater
COM	319	Persuasion and Social Influence	Variables that influence and modify attitudes and behaviors of message senders and receivers, including analysis of theories, research, and current problems.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a Cumulative GPA of 2.50 or greater; Communication students must have completed COM 207 with a grade of C or greater; Non-Communications students must have completed a specified statistics course with a grade of C or greater
COM	320	Communication and Consumerism	Critical evaluation of messages designed for public consumption. Perceiving, evaluating, and responding to political, social, and commercial communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.50 GPA

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	321	Rhetorical Theory and Research	Historical development of rhetorical theory and research in communication, from classical antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	(L or HU) & H	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 100 with a grade of C or greater
COM	323	Communication Approaches to Popular Culture	Critical analysis of popular culture within social and political contexts; emphasizes multicultural influences and representations in everyday life.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	C	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 100 with a grade of C or greater
COM	325	Advanced Public Speaking	Social and pragmatic aspects of public speaking as a communicative system; strategies of rhetorical theory and the presentation of forms of public communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 225 with a grade of C or greater
COM	326	Court Room Oratory	Increases knowledge and appreciation of the role of communication in the development of legal and public policies.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	341	Social Contexts for Performance	Adaptation and performance of literature for the community outside the university. Research into the practical uses of performed literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	344	Performance of Oral Traditions	Cultural beliefs and values studied through ethnographic research and performance of personal narratives, folklore, myths, legends, and other oral traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU & C	Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C & G	Pre-requisites: Minimum 2.50 GPA; COM 263 with C or better
COM	382	Classroom Apprenticeship	Nongraded credit for students extending their experience with a content area by assisting with classroom supervision in other COM courses (maximum 3 semester hours each semester).	N	PRA	N	YGB	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings. Open to BIS majors only.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU & C	Prerequisites : Interdisciplinary Studies or Business Communication student; Sophomore or higher; Minimum GPA of 2.00; COM 100 and COM 225 OR only COM 259 with a C or better
COM	404	Research Apprenticeship	Direct research experience on faculty projects. Student/faculty match based on interests.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	407	Advanced Critical Methods in Communication	Examines critical approaches relevant to communication, including textuality, social theory, cultural studies, and ethnography.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 308 with a grade of C or greater
COM	408	Quantitative Research Methods in Communication	Advanced designs, measurement techniques, and methods of data analysis of communication research.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA greater than or equal to 2.50; Must have completed COM 308 with a C or better
COM	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 207 with a grade of C or greater; Must have completed either COM 110 or 310 with a grade of C or greater
COM	414	Crisis Communication	Role of communication in crisis development and intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	421	Rhetoric of Social Issues	Critical rhetorical study of significant speakers and speeches on social issues of the past and present.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 207 with a grade of C or greater; Must have completed either COM 321 or 323 with a grade of C or greater
COM	426	Political Communication	Theories and criticism of political communication; including campaigns, mass persuasion, propaaganda, and speeches. Emphasis on rhetorical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.50 GPA
COM	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 230 with a grade of C or greater
COM	441	Performance Studies	Theory, practice, and criticism of texts in performance. Emphasizes the interaction among performer, text, audience, and context.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Minimum 2.50 GPA; COM 241 and COM 308 with C or better
COM	442	Identity, Performance, and Human Communication	Explores communication dimensions of self and others as performance. Examines topics that include gender, race, sexuality, age, and ethnicity through performance.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: COM 225 (or COM 241); Minimum 2.50 GPA
COM	445	Narrative Performance	Theory and practice of performing narrative texts (e.g., prose fiction, oral histories, diaries, essays, letters). Includes scripting, directing, and the rhetorical analysis of storytelling.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Minimum 2.50 GPA; COM 241 with C or better
COM	446	Performance of Literature Written by Women	Explores, through performance and critical writing, literature written by women.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	(L or HU) & C	Pre-requisite: Minimum 2.50 GPA
COM	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 308 with a grade of C or greater
COM	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 250 with a grade of C or greater
COM	463	Intercultural Communication Theory and Research	Survey and analysis of major theories and research dealing with communication between people of different cultural backgrounds, primarily in international settings.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & G	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 308 with a grade of C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	465	Intercultural Communication Workshop	Experientially based study of communication between members of different cultures designed to help students improve their intercultural communication skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	GNA	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisites: Communications students only and have completed 56 or more hours; Minimum cumulative GPA of 2.50; COM 225 and COM 308 with a C or better
COM	492	Honors Directed Study		Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		Pre-requisites: Must be an Honors student
COM	493	Honors Thesis		N	PRA	N	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6	L	Pre-requisites: Must be an Honors student
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		Pre-requisite: Minimum 2.50 GPA
COM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		
COM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-7		
COM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisites: Must have a minimum cumulative GPA of 2.50
COM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	501	Research Methods in Communication	Critical analysis of systems of inquiry in communication, focusing on the identification of variables and approaches to conducting research in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	504	Theories and Models in Communication	Theory construction, metatheoretical concerns, models, construct definition, and comparative analysis of current theories in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	508	Quantitative Research Methods in Communication	Empirical research designs, measurements, and statistical strategies and techniques in analyzing and evaluating experimental and descriptive research in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must be a Graduate Communications student
COM	509	Qualitative Research Methods in Communication	Qualitative research methods, including interviewing, field methods, and other nonquantitative techniques for analyzing communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must be a Graduate Communications student
COM	521	Rhetorical Criticism of Public Discourse	History and significance of rhetorical theory and criticism in the analysis of public discourse.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications Graduate student
COM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	PRA	Y	Z2	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	604	Theory Construction in Communication	Review and analysis of philosophical problems inherent in communicative research and of metatheories designed to deal with these problems.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	607	Contemporary Rhetorical Methods	Analysis of issues in the practice of rhetorical communication research, including criticism and scholarship.	N	SEM	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	608	Multivariate Statistical Analysis of Data in Communication	Statistical analysis of communication research data. Multivariate procedures used in communication research and methods of causal analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	609	Advanced Qualitative Research Methods in Communication	Analysis of issues in the practice of qualitative communication research, including data gathering, fieldwork issues, analysis strategies, and reporting results.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications PhD student
COM	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications Graduate student
COM	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisites: Communications PhD student; COM 600 or COM 608 with B or better; COM 601 or COM 700 with B or better
COM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-15		
COM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1.		
COM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	PRA	Y	Z2	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-15		
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	110	Elements of Interpersonal Communication	Demonstration and practice of communicative techniques in establishing and maintaining interpersonal relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a GPA of greater than or equal to 2.25
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of greater than or equal to 2.50
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of greater than or equal to 2.50
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: must have completed ENG101, ENG105, or ENG107 with a grade of C or greater
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: must have completed ENG101, ENG105, or ENG107 with a grade of C or greater
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	263	Elements of Intercultural Communication	Basic concepts, principles, and skills for improving communication among persons from different minority, racial, ethnic, and cultural backgrounds.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisite: Minimum 2.25 GPA
COM	300	Communication in Interdisciplinary Studies	Examines and analyzes communication in the context of other academic disciplines. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: BIS student; Minimum Sophomore standing; Minimum 2.00 GPA; COM 100 and COM 225 with C or better or COM 259 with C or better
COM	301	Introductory Theories and Principles of Communication: Communication in Relationships, Organizations	Integrated introduction to the theories and principles of communication in public, interpersonal, and organizational contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3-9		
COM	308	Advanced Research Methods in Communication	Advanced communication research methods, including quantitative, qualitative, and critical approaches.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have a GPA of 2.5 or greater; Must have completed COM 207 with a grade of C or greater; Must have completed a Math pre-requisite
COM	310	Relational Communication	Explores communication issues in the development of personal relationships. Current topics concerning communication in friendship, romantic, and work relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 with C or better
COM	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of 2.50 or greater; Must have completed COM 100 with a grade of C or greater
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	317	Nonverbal Communication	Study of communication using space, time, movement, facial expression, touch, appearance, smell, environment, objects, voice, and gender/cultural variables. Not open to students with credit in COM 294 ST: Beyond Words.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a cumulative GPA of 2.50 or greater
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisites: Minimum 2.50 GPA; COM 263 with C or better
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisites: Minimum 2.50 GPA; COM 263 with C or better

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COM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	Prerequisites : Interdisciplinary Studies or Business Communication student; Sophomore or higher; Minimum GPA of 2.00; COM 100 and COM 225 OR only COM 259 with a C or better
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	Prerequisites : Interdisciplinary Studies or Business Communication student; Sophomore or higher; Minimum GPA of 2.00; COM 100 and COM 225 OR only COM 259 with a C or better
COM	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 207 with a grade of C or greater; Must have completed either COM 110 or 310 with a grade of C or greater
COM	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 230 with a grade of C or greater
COM	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 308 with a grade of C or greater
COM	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 250 with a grade of C or greater
COM	492	Honors Directed Study		Y	PRA	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6		Pre-requisites: Must be an Honors student
COM	493	Honors Thesis		N	PRA	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		Pre-requisite: Minimum 2.50 GPA
CON	100	Introduction to Construction	Introduces construction industry sectors and professionals. Additional content includes developing personal competencies required of construction professionals.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	2.		
CON	101	Construction and Culture: a Built Environment	Analyzes the cultural context of construction, emphasizing its centrality in the evolution and expansion of built environments as expressions of ethical and historical value systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	HU & H & G	
CON	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-3		
CON	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	221	Applied Statics	Vectors, forces and moments, force systems, equilibrium, analysis of basic structures and structural components, friction, centroids, and moments of inertia.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: PHY 111 and PHY 113 and MAT 265 (or MAT 270) with C or better
CON	223	Strength of Materials	Analyzes strength and rigidity of structural members in resisting applied forces. Stress, strain, shear, moment, deflections, combined stresses, and connections.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: CON 221 with C or better
CON	241	Surveying	Theory and fieldwork in construction and land surveys.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: MAT 265 or MAT 270 with C or better
CON	243	Heavy Construction Equipment, Methods, and Materials	Emphasizes Horizontal construction. Fleet operations, maintenance programs, methods, and procedures to construct tunnels, roads, dams, and the excavation of buildings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	251	Microcomputer Applications for Construction	Applies the microcomputer as a problem-solving tool for the constructor. Uses spreadsheets, information management, and multimedia software. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: MAT 265 or MAT 270 with C or better
CON	252	Building Construction Methods, Materials, and Equipment	Emphasizes Vertical construction. Methods, materials, codes, and equipment used in building construction corresponding to the division of the CSI Master Format.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	271	Construction Safety	Safety procedures and equipment. OSHA requirements for construction. Biological aspects of construction safety.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CON 252 with D or better; CON 243 with C or better
CON	273	Electrical Construction Fundamentals and Project Management	Electrical construction, design, estimating, scheduling and project management. Electrical safety, blueprints and symbols, theory, sequence of installation. National Electrical Code (NEC).	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	296	Field Internship	Participation as interns on construction projects to observe and experience the daily activities. fee	N	PRA	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1.		Pre-requisites: Construction students only
CON	301	Megaprojects and Their Impacts on Society	World survey of construction megaprojects and their impacts on the environment, technology, local and global economies, and local culture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering BS/BSE students and must have completed COM 225 with a grade of D or better or be currently enrolled
CON	302	Construction Workforce Issues	Examines issues and forces that have shaped today's construction workforce, including relations among gender, racial, ethnic, and class groups.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering BS/BSE students and must have completed COM 225 with a grade of D or better or be currently enrolled
CON	310	Testing of Materials for Construction	Structural and behavioral characteristics, engineering properties, measurements, and application of construction materials. Not open to engineering students.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: Construction BS student; CON 221 with C or better; CON 223 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CON	341	Surveying	Theory and fieldwork in construction and land surveys. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	345	Mechanical Systems	Design parameters and equipment related to heating and cooling systems for mechanical construction. Biorelated aspects of mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: Construction BS student; PHY 111 (or PHY 121) with C or better; PHY 113 (or PHY 122) with C or better; CON 221 with C or better; CON 252
CON	377	Residential Construction Production Procedures	Process used in residential construction. How a house is built: design, permits, scheduling, codes, contracting, site management, mechanical/electrical.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS or Design BSD student; CON 221 with C or better; CON 252
CON	383	Construction Estimating	Analyzes construction drawings and specifications. Methods used in estimating process. Quantity surveying techniques for CSI divisions. Discusses ethical practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisites: Construction BS or Housing & Urban Development BSD students; CON 243 and CON 221 with a C or better; CON 252 with a D or better
CON	389	Construction Cost Accounting and Control	Nature of construction cost. Depreciation and tax theory and variable equipment costs. Cash flow theory, investment models, profitability, and analysis. Computer applications. Funding sources and arrangements. Builder's insurance.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	CS	Pre-requisites: Engineering and Design BS and BSD students; CON 221 with C or better; CON 251 with D or better
CON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		Pre-requisite: Engineering BS or BSE student
CON	424	Structural Design	Economic use of concrete, steel, and wood in building and engineered structures. Design of beams, columns, concrete formwork, and connections.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering Construction BS students; CON 223 with C or better; Pre or Co-requisites: CON 310 (with C or better if completed)
CON	446	Marketing for Construction	Provides key marketing practices to include strategic planning, marketing collateral, networking, business development, and interview preparation for project pursuits. Covers all aspects of service-based marketing topics and practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: COM 225; CON 221 with C or better
CON	450	Geotechnical Applications for Construction	Soil formation, engineering properties and use as building materials. Soil's influence on construction of built environment, including specifications and biological aspects. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS students only; Must have completed CON 310 with a grade of D or greater or be currently enrolled
CON	453	Construction Project Management I	Introduces building information modeling, including current computer programs and methodologies for advanced project deliveries.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 271, or CON 371; CON 383 with C or better; Co-requisite: CON 495
CON	455	Construction Project Management II	Advanced topics in administrative procedures, planning processes, and coordination required to successfully complete construction projects on time and budget.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 495 and CON 453 with C or better
CON	468	Mechanical and Electrical Estimating	Analysis and organization of performing a cost estimate for both mechanical and electrical construction projects. Computer usage.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 273; CON 345 and CON 383 with C or better
CON	471	Mechanical and Electrical Project Management	Specialty contracts and agreements, scheduling, material handling, labor unit analysis, and job costing for mechanical and electrical construction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Prerequisite: Construction BS student; CON 453 with C or better
CON	472	Development Feasibility Reports	Integrates economic location theory, development cost data, market research data, and financial analysis into a feasibility report.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	L	Pre-requisite: Construction BS or Design BSD student; REA 380
CON	477	Residential Construction Business Practices	Topics addressed include development, marketing, financing, legal issues, and sales.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering BS or Design BSD student; MKT 382 or MKT 395 with D or better OR CON 446 with C or better; CON 377 with C or better; CON 389 with C or better
CON	483	Advanced Building Estimating	Concepts of pricing and markup, development of historic costs, life cycle costing, change order and conceptual estimating.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 383 with C or better
CON	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		Pre-requisites: Construction BS students; Must have completed CON296 with D or better or currently enrolled
CON	486	Heavy Construction Estimating	Methods analysis and cost estimation for construction of highways, bridges, tunnels, dams, and other engineering works.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites:Construction BS Student; Must have a C or better in CON 383
CON	492	Honors Directed Study		N	RSC	N	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-6		
CON	493	Honors Thesis		N	RSC	N	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-6	L	Pre-requisites: Must be an Honors student
CON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	495	Construction Planning and Scheduling	Various network methods of project scheduling, such as AOA, AON Pert, bar-charting, line-of-balance, and VPM techniques. Microcomputers used for scheduling, resource allocation, and time/cost analysis. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	CS	Pre-requisites: Engineering and Design BS and BSD students only; Must have completed CON 383 and CON 389 with a grade of C or better
CON	496	Construction Contract Administration	Surveys administrative procedures of general and subcontractors. Studies documentation, claims, arbitration, litigation, bonding, insurance, and indemnification. Discusses ethical practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	L	Pre-requisites Engineering CON BS students; Must have completed COM 225 with a D or better, and CON 453 with a C or better
CON	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-7		
CON	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-3		

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CON	501	Construction Research Methods	Data collection methodologies, applied parametric and nonparametric statistics, data analysis techniques, technical writing, and data presentation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	533	Strategies of Estimating and Bidding	Explores advanced concepts of the estimating process, such as modeling and statistical analysis, to improve bid accuracies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering MS/MSE/PHD graduate students
CON	540	Construction Productivity	Productivity concepts. Data collection. Analysis of productivity data and factors affecting productivity. Means for improving production and study of productivity improvement programs.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction MS student; CON 495 with B or better
CON	543	Construction Equipment Engineering	Analyzes heavy construction equipment productivity using case studies. Applies engineering fundamentals to the planning, selection, and utilization of equipment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction MS students
CON	545	Construction Project Management	Theory and practice of construction project management. Roles of designer, owner, general contractor, and construction manager.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction MS student; CON 495 with B or better
CON	547	Strategic Planning	Business planning process of the construction enterprise. Differences between publicly held and closely held businesses and their exposure.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	551	Alternative Project Delivery Methods	Design/construction interaction; conceptual estimation and scheduling; the RFQ/RFP process; legal, insurance, risk allocation issues; procurement and selection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	554	Trenchless Construction Methods	Theory and practice of trenchless construction methods. Types of equipment, roles of site personnel, engineering design, contractual issues, and safety. Lecture, class projects, and site visits. Knowledge of heavy construction equipment, methods, and materials required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	561	International Construction	Investigation of the cultural, social, economic, political, and management issues related to construction in foreign countries and remote regions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering Graduate student
CON	563	Facility Management Fundamentals	Operations and maintenance, environmental issues, computerized management and maintenance systems, strategic planning, asset management, construction and design, and LEED/LEED-EB.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	565	Information Measurement Theory I	Simplistic, logical explanations of construction and other industries. State-of-the-art supply chain, profit maximizing, and efficient practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	567	Advanced Procurement Systems	Development of multicriteria decision procurement model for selecting the performing contractor.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	570	Cleanroom Construction I	Design issues for cleanroom facilities; the construction's viewpoint including planning, structures, mechanical, and tool installation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	571	Cleanroom Construction II	Construction issues for cleanroom facilities, including scheduling, cost estimating, project management, mechanical, safety certification, and tool hook-up.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: CON 570 with C or better
CON	575	Information Technology in Construction	Use of information technology in the construction enterprise for improved communications, process modeling, and decision making.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	589	Construction Company Financial Control	Financial accounting and cost control at the company level in construction companies. Accounting systems. Construction project profit calculations. Financial analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering MS, MSE or PHD student
CON	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		

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CON	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Del E. Webb Construction	1.		
CON	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		Pre-requisite: Engineering MS/MSE/PHD Students
CON	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	700	Research Methods	Course on research methods in a specific discipline.	N	RSC	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	SEM	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-15		
CON	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-15		
CPI	430	Social Simulation	Introduces computer simulation and agent-based modeling to study social systems. Credit is allowed for only CPI 430 or ASB 430.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	Pre-requisites: CPI 200 with C or better or currently enrolled
CPI	101	Introduction to Informatics	Concepts, tools, techniques, and applications of informatics. Includes overview of programming, data management, visualization, modeling, and social implications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	111	Game Development I	Introduces video game design, art theory, and concepts as they apply to video game development. Basic art principles used in game development. Covers the fundamental video game art principles of 2-D and 3-D composition, color theory, modeling, and lighting techniques. Demonstrates practical application of these art fundamentals in establishing style guides, concept art, storyboards, and in-game assets. Also includes game design, game production, asset production, and game programming. Hands-on experience by creating 2-D game prototypes belonging to different video game genres and evaluating the techniques.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	200	Mathematical Foundations of Informatics	Practical introduction to the mathematics necessary for studies in informatics. Topics include discrete math, analytic geometry, calculus, and linear algebra.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	MA	Pre-requisites: MAT 117, 170, 210, 260, 265 or 270 with a C or better OR the Unified Placement Test with a score of 75 or higher
CPI	211	Game Development II	Introduces multiplayer games, artificial intelligence, and tile-based worlds using Macromedia Flash. Uses ActionScript tool to automate, repeat, change, anticipate, and govern the action of games from a simple word game to a complicated multiplayer game like pool. Introduces gaming terminology and basic genres, enhancements such as fine-tuning graphics, creating optimal soundtracks, and using high score lists, as well as creating and modifying online chat files.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: Computer Gaming Certificate student or BIS student with Computer Gaming emphasis; CPI 111 with C or better
CPI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	310	Information and Data Management.	Entity-relationship modeling, relational database design, relational algebra, SQL, XML, object-oriented modeling, and data management	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites:CPI 200 with a grade of C or better or currently enrolled
CPI	311	Game Engine Development	State-of-the-art techniques for computer game design and programming with an emphasis on 3-D graphics and interaction. Focuses on a practical, example-driven approach to learning the unique art of 3-D game development. Topics include graphics game engines, textures, shader programming, artificial intelligence, physics, modeling, sound effects, and techniques for user interfaces.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 211 with a C or better

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CPI	321	Fundamentals of Game Art	Introduces art theory and concepts as they apply to video game development. Covers 2-D and 3-D composition, color theory, modeling, and lighting techniques. Demonstrates practical application of these art fundamentals in establishing style guides, concept art, storyboards, and in-game assets.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 211 with C or better
CPI	360	Decision Making and Problem Solving	Practical use of database systems, computer graphics, and modeling to inform decision making.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: CPI 200 with C or better
CPI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	400	Scientific Computing and Visualization	Introduces scientific computing and visualization, supported by data acquisition, geometric modeling, and computer graphics. Covers the necessary mathematical foundations, data structures, and algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Completed CPI 101, CPI 200, & CSE 110 with a grade of D or better
CPI	411	Graphics for Games	Examines real-time rendering of high-quality interactive graphics. Studies advances in graphics hardware and algorithms that make this possible. Examples of techniques and topics include nonphotorealistic rendering, occlusion culling, level of detail, terrain rendering, shadow generation, image-based rendering, and physical simulation. Helps students add graphics-related features to the game architecture developed in CPI 311.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 311 with a C or better
CPI	412	Cognitive Systems and Intelligent Agents	Advanced concepts and techniques of rule-based programming and agent architectures, incorporating ideas from artificial intelligence, cognitive psychology, and linguistics, along with their use in creating intelligent synthetic characters for interactive games and other virtual environments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 311 with a C or better
CPI	420	Technology and Society	Introduces cultural, ethical, and policy issues raised by the penetration of electronic information and communications systems into all aspects of contemporary society.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: CPI 101 with D or better or currently enrolled
CPI	421	3-D Modeling and Texturing	Provides working knowledge of 3-D modeling, texture mapping, and paint concepts for the creation of 3-D video games art assets. Students work on concepts such as 3-D lighting, high polygon mesh rendering, and various third-party software and how to integrate them into the asset production pipeline.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 321 with C or better
CPI	422	3-D Animation and Rigging for Video Games	3-D rigging, skinning, and 3-D animation techniques for video game development. Includes rotoscoping for character animation, animation loops, and integration of motion capture data, as well as prop animation. Covers operation of 3-D cameras and 3-D rendering.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 321 with C or better
CPI	441	Gaming Capstone	Industry-oriented course emphasizing the video game development process, technical skills, teamwork and communication among the students enrolled in the gaming certificate. Students partner with local industry involved in game development, visual art, and educational gaming and solve real-world problems by working in a team comprised of students from the three tracks available within the certificate.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 412, CPI 422 or DCI 451 with C or better
CPI	470	Application of Modeling and Visualization	Applies modeling, computing, and visualization techniques to real data; presents results in a meaningful visual environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1.		Pre-requisite: CPI 400
CPI	480	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-12		
CPI	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1.		
CPI	493	Honors Thesis		N	THE	N	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-6	L	Pre-requisites: Must be an Honors student
CPI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-3		
CPI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	101	Introduction to Informatics	Concepts, tools, techniques, and applications of informatics. Includes overview of programming, data management, visualization, modeling, and social implications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
CPI	200	Mathematical Foundations of Informatics	Practical introduction to the mathematics necessary for studies in informatics. Topics include discrete math, analytic geometry, calculus, and linear algebra.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 117, 170, 210, 260, 265 or 270 with a C or better OR the Unified Placement Test with a score of 75 or higher

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CPI	420	Technology and Society	Introduces cultural, ethical, and policy issues raised by the penetration of electronic information and communications systems into all aspects of contemporary society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: CPI 101 with D or better or currently enrolled
CPP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-12		
CPP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-12		
CPY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	613	Child Counseling	Applies counseling theory in working with children in clinics and elementary schools. Integrated practicum available with instructor approval.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	622	Group Counseling	Theories and methodologies used in group counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY622
CPY	623	Counseling At-Risk Youth	Examines the behaviors that place adolescents at risk for not achieving career goals and interventions to address these behaviors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CPY	634	Organizational Development and Planned Change	Organizational/individual dynamics, including theory, analysis, techniques, and consultation/intervention strategies used in organizational development.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Technology and Innovation or Fulton Engineering Graduate student
CPY	644	Psychology of Careers	Advanced career counseling, including theory, research, and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate; CED 577
CPY	645	Professional Issues and Ethics	Ethical, legal, and professional issues of concern to practitioners and researchers functioning in a variety of settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	650	Counseling Latinos	Survey course addressing mental health concerns and perspectives for individuals and families of Latino, Spanish-speaking origin.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: CED 522
CPY	651	Personality Assessment	Training in the use of major objective personality instruments to assess psychological symptoms; emphasizes MMPI-2 and MCMI-III.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: CED 523
CPY	667	Patterns of Behavior Disorders	Etiology and treatment of a variety of psychological problems, particularly those represented in DSM III-R.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY667
CPY	668	Grant Writing and Grant Makers: The Washington Context	Develops successful proposals for educational research projects. Students gain experience writing for federal agencies, reviewing, and being evaluated on grant proposals.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Credit is allowed for only CPY or HED 668
CPY	670	Individual Differences	Focuses on definitions and assessment of ways humans vary on psychological constructs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	671	Multicultural Counseling	Provides awareness of the influence of sociocultural variables on human development and explores implications for counseling minority populations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	672	Human Diversity: Social Psychological Perspectives	Implications for psychological practice of social, psychological, and biological factors in the development of behavioral differences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	674	Counseling Women	Explores women's development and its implications for counseling. Sexism in mental health, sex differences in diagnosis and psychopathology, and women's particular treatment needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	675	Health and Wellness Counseling	Theory, research, and practice in health and wellness counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY675
CPY	676	Social Bases of Behavior	In-depth examination of contemporary research and theory in selected areas of social psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	677	Advanced Counseling	Advanced topics in counseling theory, research, and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate; CED 577 with C or better
CPY	678	Supervision Theory	Models of therapist development and clinical supervision.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CPY	679	History and Systems of Psychology	Examines the development and differentiation of the discipline of psychology from its origins in philosophy to the present.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CPY	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	694	Substance Abuse: Therapy and Psychoeducation	Develops knowledge and skills for conducting psychotherapeutic and educational interventions to address substance use disorders and associated concerns.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	701	Science and Practice of Counseling Psychology	Directed experiences involving the integration of theory, research, and practice in counseling psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	702	Research Methods in Counseling Psychology	Applies experimental and/or quasi-experimental methods to theory construction and treatment evaluation in counseling psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: COE 502
CPY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CRD	610	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability. Considers issues at different scales, ranging from urban to rural, local to global, historical to contemporary. Critically examines the role of public, private, and nonprofit institutions in promoting quality of life.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
CRD	620	Community Research Methods	Introduces community research methods, with emphasis on methodological questions and techniques relevant to contemporary community-based research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
CRD	620	Community Research Methods	Introduces community research methods, with emphasis on methodological questions and techniques relevant to contemporary community-based research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
CRD	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
CRD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-15		

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CRD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-15		
CRJ	100	The Justice System	Overview of the justice system. Roles of law enforcement personnel, the courts, and correctional agencies. Philosophical and theoretical views in historical perspective.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	SB	
CRJ	230	The Police Function	Introduces policing in the United States covering the history of police, contemporary police work, and problems in policing.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	240	The Correctional Function	Introduces the structure and function of the corrections system from historical and contemporary perspectives.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	302	Research Methods	Focuses on developing and evaluating research designs, data collection, and the relationship between validity and reliability. Also stresses methods for conducting research.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Must have completed CRJ 100, or 301, JUS 100, or 105, or 305 with a grade of C or greater; or be currently enrolled in any one of these
CRJ	303	Statistical Analysis	Introduces the fundamentals and application of descriptive and inferential statistics, with emphasis in the administration of justice area.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	CS	Pre-requisites: MAT 114, 117, 119, 142, 170 or 210 with C or better; CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	304	Criminology	Provides a basic overview of the nature, the causes and consequences, and the theories of criminal behavior.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	305	Women, Crime, and Justice	Studies women as offenders, victims, and professionals in the criminal justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	C	Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	306	Race, Ethnicity, and Justice	Studies minority issues in the criminal justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	C	Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	312	Police and Culture	Covers broad concept of culture, theoretical approaches to police subculture, and major themes that characterize police culture (suspicion, danger, solidarity, and isolationism).	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better or currently enrolled; CRJ 230 (AJS 230) with C or better or currently enrolled
CRJ	314	Innovations in Policing	Examines current theories and research findings that guide police work, and the practical implications of evaluation within police departments.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better or currently enrolled; CRJ 230 (AJS 230) with C or better or currently enrolled
CRJ	315	Police Organization and Management	Provides a thorough understanding of the structure, processes, and behavior of police organizations.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better; CRJ 230 (AJS 230) with C or better
CRJ	320	The Adjudication Function	History and development of courts, trial by jury, and other dispute resolution mechanisms; selection and removal of judges and juries; organization, structure, and jurisdiction of courts; trial and nontrial processes of the judiciary.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: Must have completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or be currently enrolled, or co-enrolled in either of these courses
CRJ	340	Juvenile Justice	Critical examination of the history and development of the juvenile court and the juvenile justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre- or Co-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better if completed
CRJ	350	Law and Social Control	Resolution of social issues through the application of law as an agent of social control. Nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	SB	Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled, or co-enrolled in either of these courses
CRJ	360	Substantive Criminal Law	Criminal liability. Crimes against persons, property, and society. Governmental sanctions of individual conduct as formulated by legislatures and the courts.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre- or Co-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better if completed
CRJ	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	410	Procedural Criminal Law	The criminal process. Constitutional and legal problems associated with arrest, search and seizure, and due process of law.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled
CRJ	420	Imperatives of Proof	Problems and means of establishing identity and fact in relation to arrest, detention, adjudication, sentencing, and correctional case management.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater,
CRJ	441	Prevention of Crime and Delinquent Behavior	Theories of prevention, individual, group, and community approaches: intervention at appropriate stages; contemporary law enforcement, and corrections practices.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled.
CRJ	442	Community Relations in the Justice System	Focuses on developing an informed plan and policy for incorporating research findings about the surrounding community within various justice services and agencies. Topics include social stratification, minority groups, and victimology.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled
CRJ	443	Probation and Community Corrections	Examines the probation and parole functions as well as the numerous and diverse types of community corrections programs.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100, or 301, or CRJ 100, or 301, or JUS 100, or 105, or 305 with a C or greater or be currently enrolled in one; and completed AJS 240, or CRJ 240 with a C or greater or be currently enrolled in CRJ 240.
CRJ	461	Domestic Violence	Legal, historical, theoretical, and treatment aspects of domestic violence, including child abuse, woman battering, incest, and marital rape.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100, OR 301, or CRJ 100, OR 301, or JUS 100, or 105, or 305 with a C or greater, or be currently enrolled in one of these.
CRJ	463	Occupational Crime	Overview of major issues in business, professional, and official rule violations. Includes consumer fraud, securities violations, unethical professionalism, and political corruption.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better

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CRJ	464	Organized Crime	The nature of organized crime and its illegal activities, theories of containment, and efforts by justice agencies to counter its dominance in society.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled.
CRJ	470	Discretionary Justice	Use/abuse, key issues/manifestations of discretion in legal system and other societal institutions. Theoretical/empirical linkages between discretion and discrimination, based on race, ethnicity, and gender.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	L or SB	Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or enrolled in; and completed ENG 101or 105 with a C or greater
CRJ	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	485	Student Assessment	Students may attend a mid-semester information session on the assessment process. At the end of the semester, students take part in a standardized examination and self-administered survey. Y/E grade only. Students must register for this class their final semester.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	0.		
CRJ	492	Honors Directed Study		N	LEC	N	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-6		
CRJ	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-6	L	Pre-requisites: Must be an Honors student
CRJ	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-3		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled in one of these
CRJ	501	Seminar in Criminal Justice	Overview of the American criminal justice system, with emphasis on policy issues in police, courts, sentencing, corrections.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	502	Seminar in Criminology	Theory and research on the nature, causes, and prediction of criminal careers and events.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	503	Research Methods	Introduces data analysis; overview of research methods used in social science research, including experimental design, survey research, field research, and evaluation research.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	504	Statistical Tools for Criminology and Criminal Justice	Focuses on essential statistical analysis that can be used in criminal justice and related agencies.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	505	Theory and Practice in Criminal Justice	Capstone course for the MA in Criminal Justice; provides a synthesis of the criminal justice system.	N	RSC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	510	Criminal Justice Planning and Program Evaluation	Examines the application of alternative models of strategic planning to the criminal justice system. Covers methods of evaluating criminal justice policies and practices.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	511	Applied Data Analysis in Criminal Justice	Examines a variety of tools used in the analysis of criminal justice data, including GIS mapping.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	512	Seminar in Policing	Graduate-level review of policing and police organizations. Seminar examines research on police strategies and practices designed to address crime.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	513	Seminar in Courts and Sentencing	Overview of the nature, proposed principles, and theoretical doctrine of the courts and sentencing policies in criminal justice.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	514	Seminar in Corrections	Theory, research, and policy issues regarding community-based and institutional correction programs.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	515	Seminar in Women and Crime	Introduces students to issues regarding women and the criminal justice system, focusing on their roles as offenders, victims and professionals.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	516	Seminar in Criminal Justice Organization and Management	Graduate-level review of policing and police organizations. Seminar examines research on police strategies and practices designed to address crime.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	517	Seminar on Juvenile Delinquency and Juvenile Justice	Examines patterns and correlates of delinquency within the context of theories of delinquency. Reviews the response of the juvenile justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	518	Seminar on Race/Ethnicity, Crime, and Justice	Theoretical perspectives and research on the overrepresentation of racial minorities as victims, offenders, and defendants in the criminal justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	519	Seminar on Victimization	Examines theory and research concerning victimization and consequences for victims, society, and the justice system. Also examines effective responses to victims' post-crime needs.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	520	Seminar on Violent Crime	Examines patterns and correlates of violent crime, as well as prevention strategies and policy implications.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students

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CRJ	521	Seminar on the Nature of Crime	Examines patterns and correlates of crime at individual, situational, and aggregate levels. Topics include defining crime, offender typographies, and criminal careers.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	522	Seminar on Gangs and Crime	Theoretical perspectives and research on gangs and crime, and on the role of the community and the criminal justice system in causes and control.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	524	Seminar on Punishment and Society	Examines the fundamental philosophical principles of justice and punishment. Includes a comparative and historical perspective.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	525	Seminar on Life-Course Criminology	Provides an intensive examination of life-course explanations of crime, the life-course perspective and a theoretical orientation, and research methods used in life-course research.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	534	Program Evaluation in Criminal Justice	Covers methods of program evaluation, principles of research design, and evaluation tools and resources.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Criminology and Criminal Justice	1.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	601	Seminar on Criminological Theory	Examines historical and contemporary criminological theories.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	602	Seminar on Criminal Justice Policies and Practices	Analyzes responses to crime and the operation of criminal justice system, with emphasis on theory and research on effectiveness of policies and practices of the system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	603	Advanced Research Design	Exposes students to advanced topics in research design and methodology in preparation for writing the doctoral dissertation.	N	RSC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	604	Advanced Statistical Analysis	Use and application of advanced statistical techniques and multivariate analysis of data.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	605	Topics in Quantitative Methods	Explores advanced techniques of statistical analysis within the field of criminal justice.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	606	Advanced Topics in Theoretical Criminology	Focuses on criminological theory construction, historical and contemporary theoretical debates within criminology, theory testing, empirical support for theories, and theoretical integration.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		

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CRJ	607	Advanced Topics in Policing	Covers the major issues related to policing and police organizations in the United States. Principal focus on policing and police organizations in large cities, with a focus on police organizational structure, police culture, police organizational environment, police decision making and change in the police organization.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	608	Advanced Topics in Courts and Sentencing	Focuses on recent research on charging, plea bargaining, bail decision making, jury decision making and sentencing, as well as the impact of recent reforms directed at the criminal court system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	609	Advanced Topics in Corrections	Provides a critical examination of the theoretical framework underpinning current correctional policy (institutional and community based), as well as advanced, in-depth analyses of contemporary issues surrounding corrections.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	610	Advanced Topics in Juvenile Justice	Examines the meaning of the concept of juvenile delinquency as a separate entity in the criminal justice system. Considers the relationship between social attitudes and definitions of youthful law violation, and reviews studies on various forms of delinquency, such as drug offenses, sex delinquency, and status offenders. Also focuses on the internal workings of the juvenile justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	611	Advanced Topics in Crime and Victimization	Examines research on criminal offending and victimization, focusing on the correlates of offending and victimization, risk and protective factors, and policies designed to reduce the impact of crime on victims.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	612	Advanced Topics in Race, Gender, and the Criminal Justice System	Examines the interrelationships among race and ethnicity, gender, crime and the criminal justice system. Focuses on theoretical perspectives and empirical research on racial minorities and women as victims, offenders, and criminal justice professionals.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	613	Qualitative Methods	Provides students with an examination of the design, execution, and write-up of qualitative research. Discusses methods of data collection, including participant-observation, ethnography, and interviewing.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-15		
CRJ	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	College of Public Programs	School of Criminology and Criminal Justice	1-15		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	462	Gangs	Critical examination of the history and development of gangs, including criminal justice system responses to gangs and gang-related behaviors.	N	LEC	N	OPT	INACTIVE College Human Services	INACTIVE School of Criminology & Criminal Justice	3.		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled in one of these.
CSE	100	Principles of Programming with C++	Principles of problem solving using C++, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	101	Introduction to Computer Science and Engineering	Introduces topics in computer science and computer engineering; familiarization with CSE curriculum subdisciplines and topics. Design of computer software and systems, exploring and experimenting with systems, teamwork, professional opportunities, computer models and programming, communication. Fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	2.		
CSE	110	Principles of Programming with Java	Concepts of problem solving using Java, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	120	Digital Design Fundamentals	Number systems, conversion methods, binary and complement arithmetic, Boolean algebra, circuit minimization, ROMs, PLAs, flipflops, synchronous sequential circuits. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	180	Computer Literacy	Students gain fluency in integrating technology to efficiently and effectively solve problems using computational thinking.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	182	Applied Problem Solving with C#.Net	Introduces object oriented programming, problem solving, fundamental algorithms and techniques, computer systems concepts, and implementation of programs using Visual C#.Net platform.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	183	Success in Computer Science and Engineering Programs	Overview of the computer science and computer systems engineering fields as well as academic success tips for students.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	205	Object-Oriented Programming and Data Structures	Problem solving by programming with an object-oriented programming language. Introduces data structures. Overview of computer science topics. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	Pre-requisites: CSE 100 or 110 with C or better or currently enrolled
CSE	220	Programming for Computer Engineering	Introduces procedure programming languages (C/C++) and hardware descriptive language (VHDL). fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science & Engineer PRE or BSE; Must have received a C or greater in CSE 120 or EEE 120 AND CSE 205 or CSE 210

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CSE	230	Computer Organization and Assembly Language Programming	Register-level computer organization. Instruction set architecture. Assembly language. Processor organization and design. Memory organization. IO programming, Exception/interrupt handling. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: CSE 120 or EEE 120 with C or better; CSE 100, CSE 110 or CSE 200 with C or better OR Computer Science & Engr Graduate student; Credit for CSE 230 or CSE 330 only
CSE	240	Introduction to Programming Languages	Introduces the procedural (C/C++), applicative (LISP/Scheme), and declarative (Prolog) languages.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: CSE 205 with C or better
CSE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6		
CSE	301	Computing Ethics	Ethics for computing majors: history of computing, intellectual property, privacy, ethical frameworks, professional ethical responsibilities, and risks of computer-based systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		Pre-requisites: Computer Science & Engineering BS/BSE student; CSE 205 with C or better
CSE	310	Data Structures and Algorithms	Advanced data structures and algorithms, including stacks, queues, trees (B, B+, AVL), and graphs. Searching for graphs, hashing, external sorting.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engineering BSE, Computer Science BS, Computational Math Sciences BS or Biomedical Informatics BS student; CSE 205 with C or better; MAT 243 with C or better (CMS students may substitute MAT 300) or CSE Graduate students
CSE	320	Design and Synthesis of Digital Hardware	Design and synthesis of digital hardware with hardware description language, computer-aided design tools, and programmable devices. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 220 with C or better; CSE 230 or EEE 230 with C or better; Credit for CSE 320 or CSE 422 only
CSE	325	Embedded Microprocessor Systems	System-level programming and analysis of embedded microprocessors systems. Fundamental concepts of digital system design for embedded system applications. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 220 with C or better or currently enrolled; CSE 230 or EEE 230 with C or better or currently enrolled; Credit for CSE 325 or CSE 421 only
CSE	340	Principles of Programming Languages	Formal syntactic and semantic descriptions, compilation and implementation issues, and theoretical foundations for several programming paradigms. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 310 with C or better; CSE 230 or EEE 230 with C or better OR CSE Graduate students
CSE	355	Introduction to Theoretical Computer Science	Introduces formal language theory and automata, Turing machines, decidability/undecidability, recursive function theory, and complexity theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Syst Engr BSE or Computer Science BS student and have received a C or greater in CSE 310 OR CSE Graduate students
CSE	360	Introduction to Software Engineering	Software life cycle models; project management, team development environments and methodologies; software architectures; quality assurance and standards; legal, ethical issues. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student and have received a C or greater in CSE 220 or CSE 240 or currently enrolled OR CSE Graduate students
CSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	408	Multimedia Information Systems	Design, use, and applications of multimedia systems. Introduces acquisition, compression, storage, retrieval, and presentation of data from different media such as images, text, voice, and alphanumeric.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Systems Engineering BSE or Computer Science BS students CSE 310 with C or better
CSE	412	Database Management	Introduces DBMS concepts. Data models and languages. Relational database theory. Database security/integrity and concurrency. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: - Computer Systems Engr BSE or Computer Science BS student; CSE 310 with a C or better or currently enrolled
CSE	414	Advanced Database Concepts	Object-oriented data modeling, advanced relational features, JDBC and Web access to databases, XML and databases, object-oriented databases, and object-relational databases.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 412 with a C or better or currently enrolled
CSE	420	Computer Architecture I	Computer architecture. Performance versus cost tradeoffs. Instruction set design. Basic processor implementation and pipelining.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better or currently enrolled
CSE	423	Systems Capstone Project I	Development process: specification, design, implementation, evaluation, and testing with economic, social, and safety considerations. Technical communication and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3-4	L	Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 320, 325, 360 with a C or better; May not enroll if received a C or better in CSE 461 or 485
CSE	424	Systems Capstone Project II	Continuation of capstone project started in CSE 423. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science or Computer Systems Engr BS or BSE students; Must have received a C or greater or be currently enrolled in CSE 423
CSE	430	Operating Systems	Operating system structure and services, processor scheduling, concurrent processes, synchronization techniques, memory management, virtual memory, input/output, storage management, and file systems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better; CSE 310 with a C or better OR Graduate CSE student
CSE	432	Operating System Internals	IPC, exception and interrupt processing, memory and thread management, user-level device drivers, and OS servers in a modern microkernel-based OS. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Systems Engineering or Computer Science BS/BSE student; CSE 430 with C or better
CSE	434	Computer Networks	Distributed computing paradigms and technologies, distributed system architectures and design patterns, frameworks for development of distributed software components.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better or currently enrolled.
CSE	438	Embedded Systems Programming	Development of embedded system software, I/O handlers, and multiple threaded programs. Scheduling algorithms. Embedded software structures. Real-time operating system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 325 with C or better

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CSE	440	Compiler Construction I	Introduces programming language implementation. Implementation strategies such as compilation, interpretation, and translation. Major compilation phases such as lexical analysis, semantic analysis, optimization, and code generation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 340 with a C or better or currently enrolled; CSE 355 with a C or better or currently enrolled.
CSE	445	Distributed Software Development	Distributed system architectures and design, service-oriented computing, and frameworks for development of distributed applications and software components. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better in CSE 360 or be currently enrolled.
CSE	450	Design and Analysis of Algorithms	Design and analysis of computer algorithms using analytical and empirical methods; complexity measures, design methodologies, and survey of important algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better in CSE 310 or be currently enrolled.
CSE	457	Theory of Formal Languages	Theory of grammar, methods of syntactic analysis and specification, types of artificial languages, relationship between formal languages, and automata.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering or Computer Science - BS students and a grade of C or better in CSE 355 or be currently enrolled.
CSE	459	Logic for Computing Scientists	Propositional logic, syntax and semantics, proof theory versus model theory, soundness, consistency and completeness, first order logic, logical theories, automated theorem proving, ground resolution, pattern matching unification and resolution, Dijkstras logic, proof obligations, and program proving.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 355 with a C or better or currently enrolled.
CSE	460	Software Analysis and Design	Object-oriented and structured analysis and design; software architecture and design patterns; component-based development; software safety and reliability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS student; CSE 360 with a C or better or currently enrolled.
CSE	461	Software Engineering Project I	First of two-course software team-development sequence. Planning, management, design, and implementation using object-oriented technology, CASE tools, CMM-level-5 guidelines. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Systems Engineering or Computer Science - BS students and a grade of C or better in CSE 460 or be currently enrolled. May not enroll if received C or better in CSE 423, or 485
CSE	462	Software Engineering Project II	Second of two-course software team-development sequence. Software evolution, maintenance, reengineering, reverse engineering, component-based development, and outsourcing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Systems Engineering BSE or Computer Science BS students; CSE 461 with a C or better or be currently enrolled; Pre- or Co-requisite: CSE 445 (with a C or better if completed)
CSE	463	Introduction to Human Computer Interaction	Design, evaluate, and implement interactive software intended for human use.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS student; CSE 310 with a C or better or currently enrolled.
CSE	465	Information Assurance	Concepts of information assurance (IA); basic IA techniques, policies, risk management, administration, legal and ethics issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Information Systems, Computer Systems Engineering BSE, Computer Science BS or Industrial Engineering BSE students and a grade of C or better in CIS 300 or CSE 360 or IEE 305 or currently enrolled
CSE	466	Computer Systems Security	Countermeasures to attacks to computer systems from miscreants (or hackers) and basic topics of cryptography and network security.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Science BS or Computer Systems Engineering BSE student; CSE 310 with C or better
CSE	467	Data and Information Security	Basic concepts of security and privacy, data and database security, access controls, trust models, watermarking, and private information retrieval.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science or Computer Systems Engineering students; CSE 310 completed with a C or better
CSE	468	Computer Network Security	Practical network security exposure and hands-on experience about basic concepts, case studies, and useful tools.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 310 with C or better
CSE	470	Computer Graphics	Introduces basic concepts of interactive computer graphics, realistic rendering, and 3-D viewing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better or currently enrolled in CSE 310 AND a grade of D or better in MAT 342 or 343 or currently enrolled.
CSE	471	Introduction to Artificial Intelligence	State space search, heuristic search, games, knowledge representation techniques, expert systems, and automated reasoning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 310 AND CSE 240 or be currently enrolled.
CSE	476	Introduction to Natural Language Processing	Principles of computational linguistics, formal syntax, and semantics, as applied to the design of software with natural (human) language I/O.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 310 or be currently enrolled.
CSE	477	Introduction to Computer-Aided Geometric Design	Introduces basic concepts of 3-D computer geometry, including curves, surfaces, meshes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems & Engineering BSE or Computer Science BS students; MAT 343 (or MAT 342) with D or better
CSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	485	Computer Science Capstone Project I	First course in capstone sequence for computer science majors emphasizing development process, technical skills, teamwork, and communication. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 310 and CSE 360 with C or better; may not enroll if received a C or better in CSE 423 or CSE 461
CSE	486	Computer Science Capstone Project II	Second course in capstone sequence for computer science majors continuing the development process, technical skills, teamwork, and communication. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 485 or currently enrolled.
CSE	492	Honors Directed Study		Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6		Pre-Requisites: Must be an honors student.
CSE	493	Honors Thesis		Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6	L	Pre-requisites: Must be an honor student.
CSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		Pre-requisite: CSE 310 with C or better

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CSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-7		Pre-requisite: Computer Systems Engineering or Computer Science - BS student and cumulative GPA must be greater than or equal to 2.50 OR Graduate Engineering students.
CSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-3		
CSE	507	Virtual Reality Systems	Computer-generated 3-D environments, simulation of reality, spatial presence of virtual objects, technologies of immersion, tracking systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science PHD, Computer Science MCS, Comp Sci/Engr (Info Assurance) PHD or Comp Sci (Art/Media/Engr) PHD students AND C or better in CSE 408 or CSE 470 or CSE 508
CSE	509	Digital Video Processing	Concepts of digital video compression, video analysis, video indexing, browsing and retrieval, video transmission over networks, video processors, MPEG 1, 2, 4, and 7 standards.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Science Engineering graduate student
CSE	510	Database Management System Implementation	Implementation of database systems. Data storage, indexing, querying, and retrieval. Query optimization and execution, concurrency control, and transaction management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	511	Semi-Structured Data Management	Addresses the data management issues for semi-structured data, which are commonly found in Web applications. Covers techniques on modeling, storing, querying and searching data without schemas, with optional confidence, and/or provenance information. Requires knowledge on relational databases and programming skills.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	512	Distributed Database Systems	Distributed database design, query processing, and transaction processing. Distributed database architectures and interoperability. Emerging technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	515	Multimedia and Web Databases	Data models for multimedia and Web data; query processing and optimization for inexact retrieval; advanced indexing, clustering, and search techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	520	Computer Architecture II	Computer architecture description languages, computer arithmetic, memory-hierarchy design, parallel, vector, multiprocessors, and input/output.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	522	Real-Time Embedded Systems	Development of real-time embedded systems, scheduling algorithms, embedded software structures, real-time operating system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	530	Embedded Operating System Internals	Investigating Linux source including: memory management, kernel synchronization and driver design topics. Designing, coding, testing, and evaluating embedded operating system software in a Linux environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	531	Distributed and Multiprocessor Operating Systems	Distributed systems architecture, remote file access, message-based systems, object-based systems, client/server paradigms, distributed algorithms, replication and consistency, and multiprocessor operating systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	532	Advanced Operating System Internals	Memory, processor, process and communication management, and concurrency control in the Windows NT multiprocessor and distributed operating system kernels and servers. Ability to understand advanced concepts in operating systems is required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	534	Advanced Computer Networks	Advanced network protocols and infrastructure, applications of high-performance networks to distributed systems, high-performance computing and multimedia domains, special features of networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	535	Mobile Computing	Mobile networking, mobile information access, adaptive applications, energy-aware systems, location-aware computing, mobile security and privacy.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	536	Advanced Operating Systems	Protection and file systems. Communication, processes, synchronization, naming, fault tolerance, security, data replication, and coherence in distributed systems. Real-time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	539	Applied Cryptography	Uses cryptography for secure protocols over networked systems, including signatures, certificates, timestamps, electrons, digital cash, and other multiparty coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	543	Information Assurance and Security	Comprehensive understanding of information assurance and security problems with the solutions as well as hands-on experiences about applying these solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	545	Software Security	Theories and tools for software security, including secure design, threat analysis and modeling, security testing and coding.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	548	Advanced Computer Network Security	Comprehensive understanding of network security and corresponding solutions, including cryptography, access control, secure Web transactions, e-mail security, and viruses.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		

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CSE	550	Combinatorial Algorithms and Intractability	Combinatorial algorithms, nondeterministic algorithms, classes P and NP, NP-hard and NP-complete problems, and intractability. Design techniques for fast combinatorial algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	552	Randomized and Approximation Algorithms	Introduces two important areas of algorithm design for graduate students. A randomized algorithm is allowed to rely on the outcome of a random experiment in deciding on its next step. In many applications, randomized algorithms are simpler than any deterministic algorithms known, but in several cases, they are in fact more powerful or more efficient than any deterministic algorithms. Covers basic paradigms for randomized algorithm design and analysis, as well as for derandomization.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	555	Theory of Computation	Rigorous treatment of regular languages, context-free languages, Turing machines and decidability, reducibility, and other advanced topics in computability theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	561	Modeling and Simulation Theory and Application	Modeling theories, simulation protocols, object-oriented modeling, model design, simulation analysis, network-based systems, discrete-event modeling, continuous modeling, hybrid modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	563	Software Requirements and Specification	Examines the definitional stage of software development; analysis of specification representations, formal methods, and techniques emphasizing important application issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	564	Software Design	Examines software design issues and techniques. Includes a survey of design representations and a comparison of design methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	565	Software Verification, Validation, and Testing	Test planning, requirements-based and code-based testing techniques, tools, reliability models, and statistical testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	566	Software Project, Process, and Quality Management	Project management, risk management, configuration management, quality management, and simulated project management experiences.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	570	Advanced Computer Graphics I	Hidden surface algorithms, lighting models, and shading techniques. User interface design. Animation techniques. Fractals and stochastic models. Raster algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	571	Artificial Intelligence	Definitions of intelligence, computer problem solving, game playing, pattern recognition, theorem proving, and semantic information processing; evolutionary systems; heuristic programming.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	572	Data Mining	Advanced data mining techniques: classification, clustering, association, preprocessing; performance evaluation; information assurance, Web mining, security and privacy issues, and other applications. Students must have a solid background in database management systems, search, learning, and statistics to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	573	Advanced Computer Graphics II	Modeling of natural phenomena: terrain, clouds, fire, water, and trees. Particle systems, deformation of solids, antialiasing, and volume visualization.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	574	Planning and Learning Methods in AI	Reasoning about time and action, plan synthesis and execution, improving planning performance, applications to manufacturing intelligent agents.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	576	Topics in Natural Language Processing	Comparative parsing strategies, scoping and reference problems, nonfirst-order logical semantic representations, and discourse structure.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	577	Advanced Geometric Modeling I	Advanced concepts of geometric modeling: rectangular and triangular surfaces, triangle meshes, Voronoi diagrams, discrete and continuous shape measures, volumes and volume visualization. Students must have a solid background in linear algebra, calculus, and basic 3D graphics to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	578	Advanced Geometric Modeling II	Advanced concepts of geometric modeling: Bezier curves, B-spline curves, blossoming, polygons, geometric algorithms, shape analysis. May be repeated for credit.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	579	NURBS: Nonuniform Rational B-Splines	Projective geometry, NURBS-based modeling, basic theory of conics and rational Bezier curves, rational B-splines, surfaces, rational surfaces, stereographic maps, quadrics, IGES data specification.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student or a Mathematics PHD student
CSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	GNA	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		

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CSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		Pre-requisites: Must be a Computer Science or Computer Science Engineering graduate student
CSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-15		
CSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-15		
CSE	100	Principles of Programming with C++	Principles of problem solving using C++, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	CS	
CSE	180	Computer Literacy	Students gain fluency in integrating technology to efficiently and effectively solve problems using computational thinking.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
CSS	432	Issues in Chicana and Chicano Gender	Analyzes social construction of gender identities; emphasis on impact of American and Mexican cultural values on normative gender relations.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
CSS	490	Field Studies in the Chicana and Chicano Community	Introduces principles and methods of qualitative research applied to the Chicana and Chicano community.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
CST	100	Object-Oriented Software Development I	Basic concepts of object-oriented analysis, design, and programming using Java. Basic Java variables, expressions, arrays, statements, methods, and classes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	150	Digital Systems	Number systems and arithmetic, Boolean algebra, combinational logic, K-maps, ROMs, PLAs, flip-flops, synchronous sequential circuits, introduction to HDL.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	CS	Pre-requisites:CST 100, or be co-enrolled in CST 100; MAT 117 or higher
CST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-3		
CST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	200	Object-Oriented Software Development II	Object-oriented programming and design; information hiding; inheritance and run-time binding; polymorphism; recursion; GUI programming. Introduces software engineering concepts, including software development life cycles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:CST 100 with a D or better
CST	201	Object-Oriented Software Development II Lab	Hands-on development and programming using objects, inheritance, and polymorphism; GUI programming; introduction to software engineering concepts, UML tools.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites:Completed CST 201 with a grade of D or better, or be co-enrolled in CST 201

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CST	220	Programming Languages for Technology with C/C++ and Scripting	Programming language design and implementation concepts through programming C/C++ and scripting; language paradigms, compilation and interpretation, types, run-time management, data control, pointers, inheritance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:CST 150, and CST 200 with a D grade or better
CST	230	Applied Data Structures	Applications of data structures: strings, stacks, queues, trees, hash tables. Time/space complexity, recursion, searching, and sorting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: CST 200 and MAT 243 with D or better
CST	250	Microcomputer Architecture and Programming	Microcomputer architecture, instruction set, assembly language programming and debugging, I/O considerations, memory interface, peripherals and busses, exception/interrupt handling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:Must have taken CST 100, & 150 with a D or better. Must be co-enrolled in CST 251
CST	251	Microcomputer Architecture and Programming Laboratory	Hands-on experience in assembly language programming and debugging. May be taken concurrently with, or subsequent to, CST 250.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering	1.		
CST	256	C Programming for Engineering Technology	Applied and practical problem solving using the C programming language.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	298	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	315	Software Enterprise I: Tools and Process	Introduces tools and techniques used in software enterprise/development, including coding, design, testing, configuration management, and personal process management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:Completed CST 200 and CST 230 with a D or better
CST	316	Software Enterprise II: Construction and Transition	Best practices in software construction in the context of a team project, including refactoring, defensive programming, unit testing, and configuration and release management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	335	Applications of Computer Theory	Introduces and applies formal language theory and automata, Turing machines, decidability, undecidability, recursive function theory, and complexity theory.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 230; MAT 243
CST	350	Digital Systems Design with Verilog	Digital system design using Verilog. Structural and behavioral modeling. Design examples include finite-state machines, RISC CPUs, and UARTs. Requires design projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET150 or CST150 with D or better OR Technology and Innovation or Fulton Engineering graduate student
CST	359	Internet Networking Protocol	Computer networking for application, transmission control and network layers using the Internet protocols as a model; reliability and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	364	Computer Architecture	Price/performance analysis, instruction set design, RISC/CISC, processor design and implementation, pipelining, instruction-level parallelism, memory hierarchy, storage and I/O systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must have earned D or greater in CET 200 or CST 200 or be currently enrolled AND earned D or greater in CET 354 or CST 354 or be currently enrolled OR must be Technology Science BAS, MS, MSTECH, or Master Computing Studies student
CST	383	Shell and Script Programming with UNIX	UNIX operating system programming of shells, environment and 4th-generation languages and tools, such as sed, awk, perl, grep, make.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites:Must be Technology Science non-degree or BS student AND earned C or greater in CET 100, CET256, CST100, or CST256 or currently enrolled OR must be Technology Science BAS, MS, MSTECH, Master Computing Studies, or Engineering PHD student
CST	386	Operating Systems Principles	Fundamentals of operating systems, process management, scheduling and synchronization techniques, memory and file management, protection and security issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites:Tech Science or Eng BS/BSE/BAS/NonDegree AND C or greater in CST100 or CST256 AND C or greater in CST 250/251 OR Tech Sci BAS/MS/MSTECH, Master Comp Studies or Eng PHD student
CST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	401	Digital Signal Processing for Multimedia	Applies DSP techniques to multimedia. Digital filter analysis and design. Time and frequency techniques. Computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	415	Software Enterprise III: Inception and Elaboration	Third course in the four-course enterprise sequence. Students perform inception (project launch) and elaboration (requirements analysis) activities in project teams.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	L	
CST	416	Software Enterprise IV: Project and Process Management	Project-centric course focusing on applying software process, project management, and technical leadership. Final course in the software enterprise sequence.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 415; ENG 102, 105, 108 or 112
CST	420	Foundations of Distributed Web-Based Applications in Java	Principles underlying design and implementation of distributed software components; sockets, protocols, threads, XML, serialization, reflection, security, and events.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be Technology Science BAS/BS/MS/MSTECH student AND earned a C or greater in CET 230 or CST 230 or be currently enrolled AND earned a D or greater in CET 386 OR CST 386 or be currently enrolled
CST	425	Server Software Programming	Design and implementation of software servers, threaded socket servers, servers for distributed Web-based applications; security for the Web.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better
CST	427	Distributed Object Systems	Distributed applications with Web services, NET, RMI, CORBA; concepts and frameworks for managing, registering, locating, and securing distributed object applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better
CST	428	Web-Client User Interface Programming	Client-server model for window interfaces. Java Swing, Applets, mark-up and scripting languages; Web tools and related technologies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better
CST	433	Database Technology	Introduces database technologies and DBMS, data models, and languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: CST 230 and MAT 243 completed with a C or better or currently enrolled
CST	441	Software for Personal Digital Assistants	Mobile computing using Java's K, Virtual Machine, MIDP for wireless applications; user interfaces, persistent data storage, and networking.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CST	452	Advanced Digital Systems Design with VHDL	Uses VHDL to design components of computers and digital systems. Design examples include RISC processor and ALU, memory controller, I/O controller. Requires design projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET 350 or CST 350 with C or better OR Technology and Innovation or Fulton Engineering graduate student
CST	456	Microcomputer Systems Interfacing	Programming using BIOS and DOS routines. Disk operations, TSR routines, and device drivers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET 354 or CST 354 with C or better or enrolled; CET 420 or CST 420 with D or better or enrolled OR Techn and Innovation or Fulton Engr graduate student
CST	457	Advanced Assembly Language Applications	Applies 32-bit assembly language programming using advanced assembler techniques and interfacing to high-level languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CST 354 with D or better; CET 354 with D or better OR Technology and Innovation or Fulton Engineering graduate student
CST	458	Digital Computer Networks	Network hardware and software, topologies, protocols, OSI model, LANs, WANs, Internet; basic concepts of packet switching, routing, error controlling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	473	Digital/Data Communications	Signals, distortion, noise, and error detection/correction. Transmission and systems design. Interface techniques and standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		
CST	481	Information System Security	Implementation, development, and analysis of computer and network security policies, legal ramifications and development and analysis of risk management measures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	482	Network Forensics	Use and creation of advanced network forensics tools: intrusion detection and prevention, honeynets, traffic routing and management, and data reduction and graphing tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	483	Cyber Security Capstone Project	Applies security techniques to a real-world situation. Development of security policy, risk solutions, and incident response facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	2.		
CST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	486	Embedded C Programming	Programming concepts for embedded systems. Interfacing and controlling LED, LCD, keypads, buttons. Embedded OS concepts. Timers and interrupts. Serial communication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET383 or CST 383 with C or better; CET 350 or CST 350 with C or better OR Technology and Innovation or Fulton Engineering Graduate student
CST	488	Systems Administration of UNIX	UNIX administration of system and user services using command line and GUI tools. System security and forensics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Technology Science or Engineering BS/BSE/BAS/Graduate NonDegree/MS/MSTECH AND earned C or greater in CET383 or CST383 AND CET386 or CST386 or be currently enrolled OR must be Tech Sci MS/ MSTECH or Eng PHD student
CST	489	Network Administration with TCP/IP	Configuration and installation of networks: addressing, routing, naming, and LAN and MAN services. Network security checking, monitoring, and basic forensics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Technology Science or Engineering BS/BSE/BAS/Graduate NonDegree/MS/ or MSTECH AND earned D or greater in CET383 or CST383 or be currently enrolled AND earned D or greater in CET459 or CST459 or be currently enrolled
CST	490	Reading and Conference		N	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering	1-6	L	Pre-requisites: Must be an Honors student
CST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		Pre-requisite: Undergraduate Technology and Innovation or Fulton Engineering student; Min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
CST	496	Ethics and Professionalism in Computing	Studies major social and ethical issues in computing, including impact of computing on society, ethical behavior, and social responsibility.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		
CST	497	Honors Colloquium		Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-7		Pre-requisite: Undergraduate Technology and Innovation or Fulton Engineering student; Min GPA 2.25; OR Technology and Innovation or Fulton Engineering Graduate student
CST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-3		
CST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	520	Computer Architecture	Basics of computer architecture. RTN, RISC, CISC concepts; computer arithmetic; ALUs; memory systems; I/O.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: CET364 or CST364 OR Graduate, Non-Degree, or Post Bacc student AND College of Engineering & Applied Sciences or School of Technology

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CST	533	Database-Centric Enterprise Applications Development	Solutions for enterprise software systems based on relational database technology. Persistence solutions in middleware frameworks. O/R, XML, and scalability issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Minimum University Cum GPA 3.0; CST 433
CST	540	Internet-Enabled Embedded Devices	Accessing hardware devices through Internet, including Applets, HTTP, custom byte streams, XML-RPC, SOAP. Building network-based applications that interface hardware.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420
CST	552	Digital Systems Design	Digital system design techniques and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); CST 452
CST	554	Distributed Computing	Topics in distributed systems, including communications, distributed operating systems, fault-tolerance, and performance issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	556	Distributed Applications for Windows Platforms	Distributed Web-based applications using Windows frameworks such as .NET. Essential components, XML, remoting, Web services, windows services, user interfaces.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); CST 420
CST	557	Embedded Applications Development	Current trends in embedded system development using C, assembly, and special purpose hardware. Development versus target environment issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	566	Principles and Practices of Operating Systems	Principles and practices of operating systems: virtual memory systems, I/O devices and systems, file systems and organization, and other topics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	576	Embedded Real-Time Programming	Topics in real-time embedded operating systems such as synchronization, communications, file systems, and memory sharing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Minimum University Cum GPA 3.0
CST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	586	Digital Modeling Techniques	Digital system modeling and simulation using hardware description languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering	1-12		
CST	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		
CST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-15		
CST	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		
CST	501	Digital Signal Processing Applications	Applies DSP techniques to the design and analysis of digital filters. Solution of filtering problems using computer techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
DAH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	301	Philosophy and Criticism of Dance	Philosophical issues in dance and dance criticism, with emphasis on written analysis and interpretation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better
DAH	302	Cross-Cultural Dance Studies	Examines the field of ethnochoreology, ethnographic methods, and interpretive research practices. Develops critical writing, thinking, and viewing skills for comparative dance study.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	(L or HU) & G	Pre-reqs: Must have completed DAH 201 with a C or greater or be currently enrolled; Must have completed both ENG 101 and ENG 102 OR ENG 105 with a C or greater or be currently enrolled
DAH	401	Dance History	History of dance with a focus on Western forms from the Renaissance to contemporary times. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU	
DAH	492	Honors Directed Study	Consult with an honors advisor before enrolling. May be repeated for credit.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-6		
DAH	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Dance T	1-6	L	Pre-requisites: Must be an Honors student
DAH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	495	Theory and Methods of Dance Research	Examines modes of inquiry, data gathering techniques, data analysis and representation, prospectus design, and presentation style for dance research studies. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAH	496	Senior Dance Studies Capstone	Original research that integrates dance and a related field of interest. Includes production of written document and public presentation. Fall semester must be completed before spring registration. May be repeated for a total of 4 semester hours.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		

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DAH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-3		
DAH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	502	Cultural Concepts of Dance	Examines the close connections among culture, dance, and movement through writings in cultural theory, dance ethnology, and philosophy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		
DAH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		Pre-requisites:Must be a Graduate Student
DAN	122	Rythmic Theory for Dance II		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	130	Dance	Introduces styles and forms of dance; ballet, modern, jazz, tap, ballroom, ethnic. Fee.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	130	Dance	Introduces styles and forms of dance; ballet, modern, jazz, tap, ballroom, ethnic. Fee.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	264	Improvisational Structures	Introduces basic improvisational and choreographic principles with emphasis on current media and technology, group structures, and movement invention.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	321	Music Literature for Dance	Historical survey of music and compositional elements relative to dance. Emphasis on analysis of choreography from a musical standpoint. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must have completed DAN222 and MUS340 with a grade of C or greater or be currently enrolled
DAN	330	Dance	Advanced levels. Continuation of DAN 230. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	351	Methods of Teaching Ballet	Analysis and acquisition of teaching techniques and materials for ballet.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	352	Dance Education Theory	Motivation; learning; assessment; historical, cultural, and social constructs; outreach; service; advocacy; curriculum development in dance education. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance major
DAN	354	Integrated Approaches to Dance Education	New methods of dance education pedagogy. Essential skills to employ and integrate instructional technology within dance curricula. Activities promote experiential and layered instruction in integrated approaches to multicultural pedagogy that include interdisciplinary, integrated, and immersion strategies of education. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	356	Teaching Contemporary Dance	Frameworks, skills, and strategies for teaching contemporary dance practice in multiple settings. Fee.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance Education student
DAN	364	Choreography and Accompaniment	Experience in the use of traditional and nontraditional musical structures as a basis for choreographic projects.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-Requisites: Must have completed DAN265 with a grade of C or greater or be currently enrolled
DAN	365	Advanced Choreography	Investigation and practice of contemporary styles of choreography.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must have completed DAN364 with a C or greater; must have completed DAN265 with a C or greater or be currently enrolled
DAN	371	Dance Theatre Performance/Production	Performance or technical theatre work in designated dance productions. 3 hours a week per semester hour.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	380	Performance Studies Practicum	Focus on developing rehearsal skills and achieving performance excellence through the preparation of three completed works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		

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DAN	435	Technique and Theory of Ballet	Study of professional advanced ballet technique with emphasis on preparation for performance. 4 hours weekly. May be repeated for credit.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisites:Must be a Dance Major
DAN	445	Laban Movement Analysis	Theory and practice of Laban movement analysis and Bartenieff fundamentals through movement investigation, observation, notation, and analysis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance major
DAN	471	Dance Arizona Repertory Theatre	Preprofessional modern dance company, emphasizing outreach and performance. Opportunity to work with guest artists and community schools and organizations. May be repeated for credit. fee	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAN	472	Concert Dance	Extensive preparation of repertory or new works created by experienced choreographers. Simulates dance company experience, culminating in performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	496	Senior Dance Education Capstone	Original research that integrates dance and education. Includes production of written document and public presentation. Fall semester must be completed before spring registration. Must be repeated for a total of 4 semester hours.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DAN 350 with C or better; DAN 352 with C or better; DAN 354 with C or better; DAN 356 with C or better
DAN	510	Dance Production	Theory of costuming, lighting, makeup, scenery, and sound as related to dance performance. May be repeated once for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	522	Sound Design for Dance	Focus on digital recording/editing of audio compositions for choreographic and video projects. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	1-2		Pre-requisite: Must have completed DAN 521 or be co-enrolled in DAN 521
DAN	545	Laban Movement Analysis	Theory and practice of Laban movement analysis and Bartenieff fundamentals through movement integration, observation, critical research, notation, and analysis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	551	Graduate Dance Pedagogy: Ballet	Advanced analysis of teaching techniques for ballet.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	564	Solo and Group Choreography I	Original choreography created for solo and group performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Graduate Student
DAN	565	Solo and Group Choreography II	Continuation of DAN 564.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must have completed DAN 564
DAN	571	Dance Theatre	Performance in specially choreographed dance productions.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		Pre-requisites:Must be a Graduate Student
DAN	671	Dance Arizona Repertory Theatre	Preprofessional modern dance company, emphasizing outreach and performance. Opportunity to work with guest artists and community schools and organizations. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3-4		Pre-requisites:Must be a Graduate Student
DCE	100	Introduction to Dance	Overview of dance as a cultural and performative practice, exploring history and theory, philosophy, and movement practices, with reference to key pioneers in the field from around the world.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DCE	100	Introduction to Dance	Overview of dance as a cultural and performative practice, exploring history and theory, philosophy, and movement practices, with reference to key pioneers in the field from around the world.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DCE	113	Dances of Africa I	Introduction to basic elements of West and Central African dance styles including the traditional rhythms and cultural context.	N	STO	Y	GNA	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	120	Modern Dance I	Introduces modern dance and its basic principles, including alignment, core muscular strength, and spatial exploration.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	121	Ballet I	Introduces principles of ballet and development of basic technical skills, including dynamic alignment, functional rotation, and musicality.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	130	First-Year Movement Practices I	Introduces diverse somatic movement principles and practices through exploration of movement, context, theory, and personal reflection.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance major
DCE	134	Technique and Theory of Modern Dance	Elementary concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	135	Technique and Theory of Ballet	Elementary ballet technique with emphasis on alignment, control, and development of the feet with proper awareness of style and phrasing. 4 hours weekly. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	160	First-Year Creative Practices I	Explores creativity and creative processes with reference to some key historical practices and influential artists. Seeks to encourage and develop students' awareness of their own imagination and creative process through individual and group projects involving problem solving, creative tasks, and reflection.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	170	First-Year Seminar I	Orientation to the university learning environment and profession of dance with emphasis on developing tools and processes for reflection and critical thinking.	N	LEC	N	YGB	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisite: Dance major
DCE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DCE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DCE	201	Dance, Culture, and Global Contexts	Introduces the study of dance as culture in diverse global contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DCE	220	Modern Dance II	Explores modern dance practices, including somatic techniques, stylistic versatility, and performance skills.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DCE	221	Ballet II	Explores contemporary and classical ballet practices, focusing on whole body integration and performance strategies.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	234	Technique and Theory of Modern Dance	Intermediate concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	235	Technique and Theory of Ballet	Advanced study of elementary ballet technique through the traditional exercises, with proper awareness of style and phrasing. 4 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	262	Rhythmic Theory for Dance I	Elements of music, music structures, and their relationship to dance. Emphasis on rhythmic analysis and dance accompaniment. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	263	Rhythmic Theory for Dance II	Continuation of DAN 221 with an emphasis on small group/movement projects in relation to musical time and structure. CD-ROM work included. Students with rhythmic theory transfer credit may meet the enrollment requirements by passing a proficiency exam. Please contact the instructor of the course for more information.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	265	Approaches to Choreography	Intermediate application of basic choreographic principles with emphasis on improvisation, form, content, and evaluative skills.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance majors only
DCE	270	Second-Year Seminar 1	Theory and practice of lighting, scenery, sound, and stage management for dance production. Labs cover all areas of production.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2-3		Pre-requisites: Dance student
DCE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DCE	334	Technique and Theory of Modern Dance	Advanced concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Placement audition required.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	335	Technique and Theory of Ballet	Intermediate ballet technique with emphasis on strength, dynamics, rhythmical impulses, and transitions with awareness of proper style and phrasing. 4 hours weekly.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	340	Dance, Computers, and Multimedia	Introduces desktop multimedia as it relates to dance creation, education, production, and research. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	CS	Pre-requisites: ART 112 with D or better or Dance BFA student
DCE	350	Dance for the Classroom Teacher	Develops teaching methodology for implementation of dance curriculum in K-12 classrooms.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DCE	354	Creative Approaches to Teaching Dance I	Explores creative strategies and methodologies for teaching dance to a variety of populations in diverse settings. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DCE	434	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance technique. 6 hours weekly.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	437	Dance Kinesiology	Principles of kinesiology applied to dance movement, including identification of muscular imbalances, inherited anatomical differences, and pathomechanics in dance technique.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance BFA student; BIO 201 with a D or better
DCE	460	Transition Project I	Original choreography for group performance with analysis and critique of problems encountered in production.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	492	Honors Directed Study		N	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-6		
DCE	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Dance T	1-6	L	Pre-requisites: Must be an Honors student
DCE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DCE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-7		
DCE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-3		
DCE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	501	Philosophy of Dance	Analyzes traditional and contemporary theories of dance with regard to issues of expression, form, and meaning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must be a Graduate Student
DCE	534	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance for first-year graduate students. 6 hours weekly. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		Pre-requisite: Dance Graduate student
DCE	535	Technique and Theory of Ballet	Graduate study of ballet technique.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-2		Pre-requisite: Dance Graduate student
DCE	540	Multimedia Applications for Dance	Introduces desktop multimedia as it relates to dance creation, production, education, and research. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must be a Graduate Student
DCE	543	Sound Design for Dance	Audio mixing for analog/digital recording and editing. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance majors

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DCE	554	Graduate Dance Pedagogy	Overview of the role of modern dance technique and theory in the university curriculum including current pedagogical theory, diversity, gender. May follow or precede internship in practical teaching.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance majors only
DCE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LAB	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		
DCE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		Pre-requisites:Must be a Graduate Student
DCE	634	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance for second-year graduate students. 6 hours weekly. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance Graduate student
DCE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisites:Must be a Graduate Student
DCI	510	Teacher as Researcher	Introduces teacher research as a new research genre; offers teachers guidance on planning and conducting research on their practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	511	Establishing Effective Teaching Practice	Helps beginning teachers establish and strengthen best practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	512	Developing Strategies for Teaching Practice	Helps beginning teachers refine management strategies and instructional methods.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	520	Teaching Standards Applied to Professional Practice	Develops teacher skills and self-reflective practices to assess instruction and document and achieve professional growth in teaching standards.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-3		
DCI	521	Reflective Practice in Teaching Standards	Teachers apply reflective practices to develop professional presentation portfolios.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-3		
DCI	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	530	Establish a Mentoring Partnership	Prepares veteran educators for mentoring. Mentors collaborate, reflect on their practice, and become teacher leaders through professional development.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	531	Analyzing and Planning for Professional Growth through Mentoring	Refines strategies for assessing instruction and provides collegial feedback.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DCI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		
DCI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
DCI	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	701	Curriculum Theory and Practice	Curriculum theory and practice as a field of study. Its current orientations and applications, modes of inquiry, and community of scholars and practitioners.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	702	Interdisciplinary Research Seminar	Core research course for students in the interdisciplinary PhD in Curriculum and Instruction program.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		
DCI	703	Research in Teacher Development and Leadership	Examines research in teacher education and development from preservice through in-service. Students participate in the review of research related to broad themes within the recent literature. Strands/themes of investigation include a brief review of the history of teacher education, teacher development, professional development and teacher leadership, teacher evaluation, qualitative and quantitative research in teacher education, reform in teacher education, including recent policies and politics and other issues.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		
DCI	704	Adult Learning Theory and Practice	Explores the multiple dimensions of learning in adulthood, including the social contexts of learning, and cognitive and developmental aspects of learning. Focuses on the experience and practice of adult learning, and examines the various theories attempting to explain how adults learn.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		

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DCI	705	Teacher Leadership Theory and Professional Practice	Teacher leaders analyze leadership skills as they reflect on their own practice and professional development experience. They process knowledge of how to effectively promote positive practices among teachers at varied stages in their careers. Teacher leaders are involved in scholarly inquiry and discourse by means of leadership institutes, peer collaboration, reflective questioning and individual research. Teacher leaders also develop the perspective of the teacher as researcher as they read and critically evaluate published research related to teacher leadership in professional and academic literature.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
DCI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	511	Establishing Effective Teaching Practice	Helps beginning teachers establish and strengthen best practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		
DCI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
DCI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
DCI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	451	Design Research and Educational Gaming Practicum	Principles of design research as applied to educational games. Includes implementation of a design research project.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: RDG 440 with C or better; EDT 329 with C or better
DCI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
DCI	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DCI	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
DCI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
DNC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
DNP	600	Research Methods	Course on research methods in a specific discipline.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	601	Theoretical Foundations for Advance Practice Nursing	Examines philosophical foundations of advanced nursing practice by analyzing interrelationships among theory, philosophy, practice, and research.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	602	Principles of Research Methods and Evidence-based Practice	Examines processes of scientific inquiry and their application to generating knowledge for and refining nursing practice.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	603	Evaluating and Applying Evidence in Healthcare Outcomes	Examines the role of inquiry and innovation in scientific, theoretical, and practical underpinnings of healthcare improvement.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Graduate Nursing Program student
DNP	604	Advanced Human Pathophysiology Core	Core course focuses on human pathophysiology and concepts of genetics for advance practice nursing.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	605	Advanced Health Assessment Core	Advanced health assessment skills, including history-taking strategies and physical, functional, developmental, and psychosocial assessment.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	607	Advanced Human Pathophysiology Women's Health	Didactic course for women's health nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	609	Advanced Practice Nursing Role I	First of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: Nursing Graduate Program
DNP	610	Advanced Practice Nursing Role II	Second of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP 609 with B or better
DNP	611	Advanced Health Assessment of Women Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment of women across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	613	Women's Health Promotion I	Didactic course focuses on theories of health behavior, health promotion, disease prevention and patient education.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the DNP Women's Health specialty; DNP 601, 602, 604, 605, 607 and 611 with D or better; Co-requisite: DNP 614
DNP	614	Women's Health Practicum I	Clinical assessment and education of women across the lifespan for the purposes of health promotion and disease prevention.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: admission to the DNP Women's Health specialty; DNP 601, 602, 604, 605, 607 and 611 with D or better; Co-requisite: DNP 613
DNP	615	Management of Common Problems in Women's Health	Focuses on management of nursing care for high-risk perinatal women and women with common health problems.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Graduate Nursing Program: Women's Health Specialty Track; DNP 611, 612, 613 and 614 with D or better; Co-requisite: DNP 616
DNP	616	Advanced Women's Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to Graduate Nursing Program:Women's Health Specialty Track; DNP 611, 612, 613 and 614 with D or better; Co-requisite: DNP 615
DNP	617	Management of Complex and Chronic Disease in Women	Didactic course focused on using current evidence-based research as the context for the assessment and management of complex and chronic reproductive and gynecologic health status across the lifespan and patient education.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Graduate Nursing Women's Health specialty track (NUANPWHNDNP); Must have DNP 611,612,613,614,615, and 616 with a D or better; Co-requisite: DNP 618
DNP	618	Advanced Women's Health Practicum III	Clinical course focused on using current evidence-based research as the context for the assessment and management of complex and chronic reproductive and gynecologic health states across the lifespan and patient education.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Graduate Nursing Women's Health specialty track (NUANPWHNDNP); Must have DNP 611,612,613,614,615, and 616 with a D or better; Co-requisite: DNP 617
DNP	620	Advanced Human Pathophysiology Adult	Didactic course for adult nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	621	Advanced Health Assessment of Adults Lab/Practicum	Skill-based course focuses on advanced health assessment skills, including history-taking strategies and the physical, functional, genetic, developmental, and psychosocial/cultural health assessment of adults and adolescents.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	623	Adult Health Promotion	Introduces adult health promotion and disease prevention, emphasizing principles of evidence-based practice in clinical and community settings.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Enrolled in NUANPADDNP. Corequisite: DNP 624
DNP	624	Adult Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to the DNP Adult Health specialty; DNP 601, 602, 604, 605, 611, 621 and 622 with D or better; Co-requisites: DNP 623
DNP	625	Management of Common Problems in Adults	Includes theory/research that guides the management/maintenance of adults with chronic health alterations. Emphasizes psychophysiological interrelationships of illnesses.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; and must have completed DNP 623(or NUR 501) with a grade of B or better; Co-requisite:DNP 626

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DNP	626	Adult Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Plans NUNURMS, NUAHNMS, NUNURDTMS or NUAHNDTMS, or NUGRNONDGR; and completed NUR 506(or enrolled) with a B or greater; and completed NUR 513(or enrolled) with Y credit
DNP	627	Management of Complex Health Problems in Adults	Didactic course designed to complement DNP 628. Focus on application of EBP in care of adults with complex health alterations.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Advanced Nursing Practice (Adult Nurse Practitioner) Graduate Nursing Program; DNP 623, 624, 625 and 626 with D or better; Co requisite: DNP 628
DNP	628	Adult Health Practicum III	Clinical practicum designed to complement DNP 627. Focuses on application of EBP in care of adults with complex health alterations.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to the Advanced Nursing Practice (Adult Nurse Practitioner) Graduate Nursing Program; DNP 623, 624, 625 and 626 with D or better; Co requisite: DNP 627
DNP	630	Advanced Human Pathophysiology Family	Didactic course for family nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	631	Advanced Health Assessment for Family Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	632	Applied Pharmacotherapeutics for the Family	Applies evidence-based pharmacotherapeutic principles to disease treatment and health promotion and maintenance for family nurse practitioners.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	633	Family Health Promotion in Primary Care I	First didactic role specialty course. Focuses on concepts and strategies to promote, manage, and maintain health of child, adult, and family.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:NUNURDTMS,or NUFHNDTMS,or NUGRNONDGR, & completed NUR 500,551,552,553,554,559,564,565, with a B or greater, or be currently enrolled, & be co-enrolled in NUR 513 & 568.
DNP	634	Family Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Be in Nursing MS,or Nursing (Family Nurs Pract) or GRNU Non-Deg; & completed 500,551,552,553,554,559, ,564,565 with a grade of B or greater, or be currently enrolled.
DNP	635	Management of Common Family Problems in Primary Care II	Second didactic role specialty course utilizing knowledge from previous courses to formulate therapeutic promotion, management, and maintenance for individuals across the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:nunurdtms, or NUFHNDTMS,or NUGRNONDGR; & co-enrolled in NUR 569,& completed NUR 562 with a B or greater, or be currently enrolled, & recieved credit in NUR 513 or be currently enrolled.
DNP	636	Family Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be in NURSING MS or NUFHNDTMS; & co-enrolled in NUR 563; & completed NUR 562,568 with a grade of B or greater, & completed NUR 513 with a Y grade; or currently enrolled in these classes.
DNP	640	Advanced Human Pathophysiology Pediatrics	Didactic course for pediatric nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	641	Advanced Health Assessment for Children Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment of children from birth to age 21 years.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	643	Developmentally Based Care of the Well Child	Focuses on current practices, research, and issues related to health promotion and disease prevention for children and adolescents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be a Nur grad student, or a grad non degree student; AND completed NUR 500, 551,552,554,558, 564,566, or be currently enrolled; & be co-enrolled in NUR 513.& 529.
DNP	644	Well Child Advanced Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be a Nur grad student, or a grad non degree student; AND completed NUR 500, 551,552,554,558, 564, 566 or be currently enrolled; & be co-enrolled in NUR 513,& 531.
DNP	645	Management of Common Problems in Pediatric Primary Care	Focuses on concepts, theories, and research as a basis for strategies related to management of illness and health maintenance for children.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS, or NUPCNDTMS, or NUGRNONDGR; & co-enrolled in NUR 530, and completed NUR 531 with a grade of B or better, or be currntly enrolled, or received credit for NUR 531 or currently enrolled.
DNP	646	Advanced Practicum II in Pediatric Primary Care	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be NUNURDTMS or NUPCNDTMS or non-deg grad; AND co-enrolled in NUR 532, & completed NUR 531,529,513 with a grade of B or greater, or be currently enrolled
DNP	650	Advanced Human Pathophysiology Neonates	Didactic course for neonatal nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	651	Advanced Health Assessment of Neonates Lab/Practicum	Skill-based course focuses on advanced health assessment skills, including history-taking strategies and the physical, functional, genetic, developmental, and psychosocial/cultural health assessment of neonates.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	653	Advanced Development and Family Health Promotion: Neonatal Theory I	Concepts, theories, interventions, and research related to the promotion, management, and maintenance of physical, behavioral, and developmental needs of at-risk newborns and infants and their families.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be MS Nursing and AHN, or GRNU Non-Degree, and co-enrolled in NUR 513 & 515; & completed NUR 525,526,527,528, with a grade of B or greater, or be currently enrolled in NUR 525,526,527,528.
DNP	654	Neonatal Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be MS Nursing and AHN, or GRNU Non-Degree, and co-enrolled in NUR 513 & 515; & completed NUR 525,526,527,528, with a grade of B or greater, or be currently enrolled in NUR 525,526,527,528.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DNP	655	Management of Common Neonatal Problems	Proactive neonatal theory course focusing on the concepts, theories, and research related to acute and chronic health deviations of neonates and infants.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a graduate nursing student, and must have completed NUR 515 and 516 with a grade of B or better or be currently enrolled, & completed NUR 513 with a Y grade, or be currently enrolled, AND be co-enrolled in NUR 517.
DNP	656	Neonatal Practicum II	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must be a graduate nursing student, and must have completed NUR 515 and 516 with a grade of B or better or be currently enrolled, & completed NUR 513 with a Y grade, or be currently enrolled, AND be co-enrolled in NUR 518
DNP	659	Embryology and Genetics	Prepares advanced practice nurses to use embryology, genetics, and physiology concepts within the nursing process in the care of pediatric and neonatal patients.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Neonatal, Pediatric or Family Nurse Practitioner)
DNP	660	Advanced Neuropsychopathology Lifespan	Manifestations of altered neurophysiology and psychopathology over the lifespan. Uses evidence-based support for theoretical views of psychiatric disorders to analyze the relationships of neuropsychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	662	Advanced Mental Health Assessment Across the Lifespan Lab/Practicum	Focuses on integration of knowledge and development of skills in assessment of psychiatric disorders occurring in children, adolescents, and adults.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-2		
DNP	663	Mental Health Promotion in Adults	Analyzes issues, theories, and research in restoration and promotion of mental health. Emphasizes developing conceptual framework for psychiatric nursing.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 500, 521,551,554 559, 564, & 565 with a grade of B or greater or be currently enrolled,AND be co-enrolled in NUR 522 & NUR 512
DNP	664	Adult Psychiatric Mental Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 500, 521,551,554 559, 564, & 565 with a grade of B or greater or be currently enrolled,AND be co-enrolled in NUR 522 & NUR 512
DNP	665	Management of Common Mental Health Problems in Adults	Focuses on development of theoretical basis for intervention and a knowledge base for collaboration and consultation in the mental health area.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND completed NUR 522 with a B or better or currently enrolled; AND NUR 513 with Y or currently enrolled.
DNP	666	Adult Psychiatric Mental Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		
DNP	667	Management of Complex and Chronic Mental Health Problems in Adults	Focuses on modalities of evidence-based treatment with adolescents and adults with complex and/or chronic psychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Graduate Nursing Program: Adult Psychiatric Mental Health specialty; DNP 663, 664, 665, 666 with D or better; Co requisite: DNP 668
DNP	668	Psychiatric Mental Health Practicum III	Clinical experiences in the assessment and evidence-based management of the most complex and chronic adolescent and adult mental health disorders.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to the Graduate Nursing Program: Adult Psychiatric Mental Health specialty; DNP 663, 664, 665, 666 with D or better; Co requisite: DNP 667
DNP	671	Advanced Mental Health Assessment Across the Lifespan	Focuses on comprehensive mental health assessment of psychiatric disorders occurring in children, adolescents, and families.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	672	Psychopharmacology Across the Lifespan	Focuses on evidence-based use of medications as a treatment for children and adolescents with mental health disorders.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	673	Mental Health Promotion in Children, Adolescents and Families	Focuses on evidence-based interventions to promote the mental health of children, adolescents, and families.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	674	Child and Family Mental Health Practicum II	Clinical experiences to become skilled in assessment and evidence-based 1:1 psychotherapy, group, and family management of common mental health disorders in children, adolescents, and families.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
DNP	675	Management of Common Mental Health Disorders in Children, Adolescents, and Families	Emphasizes the assessment and evidence-based management of common mental health disorders in children, adolescents, and adult family members.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3-4		
DNP	676	Child and Family Mental Health Practicum I	Clinical experiences to become skilled in assessment and evidence-based management of common mental health disorders in children, adolescents, and families.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Prerequisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner; Co requisite: DNP 675
DNP	677	Management of Complex and Chronic Mental Health Disorders in Children, Adolescents, and Families	Focuses on modalities of evidence-based treatment with children, adolescents, and families with complex and/or chronic psychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	678	Child and Family Mental Health Practicum III	Clinical experiences in the assessment and evidence-based management of the most complex and chronic mental health disorders across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner; DNP 674; DNP 676;Co-requisite: DNP 677
DNP	679	Biostatistics: Principles of Statistical Inference	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
DNP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	681	Advanced Health Assessment of Older Adults Lab/Practicum	Skill-based course focused on advanced health assessment skills specific to older adults, including history-taking strategies, physical, functional, developmental, and psychosocial health assessment.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DNP	686	Management of Common Health Problems in Geriatrics	Provides theoretical foundation for advanced geriatric healthcare focusing on the epidemiology of aging and the effects of senescence on cognition and organ systems. Emphasizes the core concepts of aging, including health management and end of life care. Uses theory building approaches for applying health management process and outcomes to clinical practice and policy.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Nursing and Healthcare Innovation PhD or DNP student. Pre/Co-requisite: DNP 682 or NUR 682. credit is allowed for only DNP or NUR 686
DNP	688	Management of Complex Diseases and Syndromes in Geriatric Population	Focuses on diagnosis and management of complex diseases and syndromes in the geriatric population.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	696	Advanced Human Pathophysiology Older Adults	Didactic course for gerontological/geriatric nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	712	Clinical Residency and Management	Demonstrates DNP competencies through portfolio documentation of clinical learning experiences and implementation of the DNP Evidence-Based Clinical Applied Project. Doctoral students submit the DNP Portfolio in partial fulfillment of the degree.	N	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Doctor of Nursing Practice student
DSC	100	Introduction to Environmental Design	Surveys environmental design; includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H & G	
DSC	101	Design Awareness	Surveys cultural, global, and historical context for the design professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & G	
DSC	180	Athena Design Success	Facilitates academic success for first-year College of Design students in the Athena program through developmental, educational, and professional experiences.	N	DIS	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		
DSC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
DSC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	236	Introduction to Computer Modeling	Computers in design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	CS	Pre-requisite: Industrial Design student; Passed Milestone
DSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
DSC	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
DSC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-7		
DSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
DSC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Master of Science in Design or PhD in Environmental Design & Planning student
DSC	501	Qualitative Research in Design	Theory and application of qualitative research. Emphasizes using ethnography to identify and specify innovative concepts and strategies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	520	Contemporary Design Issues	Projected applications in design production, planning, and decision-making processes.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	525	Design Methodologies	Practical exercises and studies in problem-solving strategies; problem definition and supporting theory for the designer. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	558	Daylighting	Daylighting as a design determinant; concepts, techniques, methodology, experiments, and case studies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Herberger Institute of Design and the Arts graduate student
DSC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Master of Science in Design student
DSC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD or Design (Inter Design) MSD student
DSC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student

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DSC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
EA	555	Sch-Plant-Plan-Main		Y	LEC	Y	CNV	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		
EAC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EAC	320	Child Guidance and Classroom Management	Understanding of the factors and elements necessary to create a positive and productive learning environment for the pre-K-3 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
EAC	330	Emerging Language and Literacy	Understanding the development of language from birth to age 8, and appropriate strategies for promoting growth in speaking, listening, reading, and writing in the pre-K-3 learning environment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	335	Assessment Birth to Age 8	Examines assessments appropriate to pre-K-3 grade instruction to align curriculum with learner needs. Focuses on test design, interpretation, lesson design, and aspects related to multiple classroom and formal assessments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
EAC	340	Literacy Interventions in K-3 Classrooms	Explores the evaluation of children's literacy development. Includes linking individual needs with literacy instruction, diagnosing reading difficulties, and tutoring a K-3 child to plan appropriate instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	345	Math Methods for Early Childhood Classrooms	Research-based and developmentally appropriate practices and methodologies for teaching and assessing mathematics to young children in a grade pre-K-3 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	355	Accommodating Instruction in Early Childhood Education	Identifying and accommodating learners with special needs, including classroom adaptations in instruction and assessment, for pre-K-3 classroom environments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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EAC	426	Professional Knowledge in Early Childhood Education	Explores issues related to professional knowledge, including disciplinary instruction and the impact of the community on students' learning.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EAC	440	Integrated Curriculum and Assessment: Science for Early Childhood Educators	Developmentally appropriate practices and methodologies for teaching and assessing science education with young children in a pre-K to third grade classroom. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	450	Integrated Curriculum and Assessment: Social Studies and Creative Arts	Techniques and resources for a balanced and integrated social studies and creative expression curriculum for pre-K to third grade classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	460	Child, Family, Community, Culture of the Early Childhood Classroom	Examines theoretical approaches to teaching young children. Includes survey of social, historical, political, community, and educational issues.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	472	Field Experience K-3	Field practicum for early childhood education. Requires a supervised placement in a K-3 classroom. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
EAC	480	Student Teaching Pre-K	Supervised student teaching experience in early childhood. Requires an assigned teaching placement in a preschool classroom setting. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	6.		
EAC	482	Student Teaching K-3	Supervised student teaching experience in early childhood. Requires an assigned teaching placement in a kindergarten to third grade classroom. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	6.		
EAC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	501	Interprofessional and Family Collaboration	Explores trends and practices, educationally appropriate instruction and resource materials, methods and strategies in early childhood education. Discusses history of the field, theory, contemporary issues and controversies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	521	Primary/Elementary Communication Arts in Bilingual Education	Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	522	Developmental Social Experiences in Early Childhood Education	Materials, techniques, aesthetic expression, creative activities, and values in the integrated curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
ECD	544	Play-Based Education in Inclusive Settings	Theories of play and the educational implications of each in an early childhood/elementary inclusive curriculum for best teaching practices. Practical applications for the primary grades of the elementary and preschool setting in inclusive settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	548	Childhood Studies and Social and Political Environments	Examines the emergence of interdisciplinary/transdisciplinary childhood studies from historical, social, and political contexts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	555	Contemporary Practices in Early Childhood	Trends and practices, instructional and resource materials, and methods and techniques in early childhood education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	570	Pre-K Internship/Student Teaching	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2.		Pre-requisites: Graduate students only
ECD	571	Pre-K Internship/Student Teaching	Field experience consisting of 60 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	4.		Pre-requisites: Graduate students only
ECD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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ECD	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	601	Theories and Issues in Early Childhood Education	Current theories and issues in early childhood education. Presents issues of early childhood best practices, policy, theory, research, and evaluation that are of significance to the early childhood professional. Highlights building on the child development conceptual framework as related to theory and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
ECD	733	Social and Emotional Development	Inquiry into the social and emotional development dynamics in children, such as peer relationships, self-concept, and parenting processes, with implications for teachers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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ECD	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	503	Introduction to Research and Evaluation in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
ECD	541	Assessment of Young Children	Developmental assessment and related program planning for infants and young children. Emphasizes authentic, individualized, family-centered and culturally competent approaches.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECD	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	543	Issues in the Development of Infants and Young Children	Factors and conditions that affect early development. Strategies for promoting attachment, self-regulation, resilience, adaptation, and coping.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	545	Curricula, Methods, Technology, and Adaptations for Infants and Young Children	Developmentally appropriate practices. Serving young children with diverse abilities in natural, inclusive settings. Emphasizes cognitive development, social competence.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	546	Communication, Language, and Early Literacy	Early communication development and language acquisition. Facilitating communicative competence and early literacy for infants and young children's diverse abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	547	Supporting Motor Development	Early sensorimotor development. Strategies to facilitate the acquisition of motor skills and address the needs of children with motor disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	555-W	Modern Practices in Early Childhood Education	Trends and practices, instructional and resource materials, and methods and techniques in early childhood education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	570	Pre-K Internship/Student Teaching	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2.		
ECD	570	Pre-K Internship/Student Teaching	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2.		
ECD	571	Pre-K Internship/Student Teaching	Field experience consisting of 60 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	4.		
ECD	571	Pre-K Internship/Student Teaching	Field experience consisting of 60 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	4.		
ECD	578	Student Teaching in Early Childhood (K-3)	Supervised teaching in the K-3 classroom setting. Synthesized experience in curriculum, instruction, classroom organization, and guidance of young children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate students only
ECD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
ECD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	211	The Developing Child: Theory into Practice, Prenatal-Grade 3	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	211	The Developing Child: Theory into Practice, Prenatal-Grade 3	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	211	The Developing Child: Theory into Practice, Prenatal-Grade 3	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	300	Principles of Interprofessional Collaboration	Focuses on the dispositions, experiences, knowledge, and skills necessary for interprofessional collaboration designed for young children and their families.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	301	Technology, Media, and Community-Based Education for Young Children	Examines technology, media, toys, and community-based educational opportunities to support the education of three- to eight-year-old children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	302	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	302	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	313	Technology in Early Childhood Education	Evaluates technology and technological learning tools for early childhood classrooms; integrates technology and its tools into students' learning. Lecture, discussion, active participation. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	315	Classroom Organization and Guidance of Young Children	Theories and strategies to guide children's development toward becoming self governing; typical and atypical behaviors; implementing age-appropriate classroom management techniques that foster individual, social, and academic competence.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	316	Teacher Research: Studying Children in Context	Introduces designing, conducting, interpreting, and reporting teacher research; methods of research and fieldwork with children to improve teaching practices and child outcomes.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	323	Building Home, School, and Community Partnerships	Knowledge and skills to facilitate positive and continuous family-school partnerships; family background, social context, family involvement, and current research on family-school interaction and academic success.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	323	Building Home, School, and Community Partnerships	Knowledge and skills to facilitate positive and continuous family-school partnerships; family background, social context, family involvement, and current research on family-school interaction and academic success.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	324	Social Studies and Creative Arts for Primary Level Children	Social studies and creative arts standards, curriculum, and instructional and assessment strategies for all primary-level children; developmentally appropriate methods and strategies for effective instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be co-enrolled in BLE 321, EDP 323, EED 397 and RDG 322 AND have completed the following with a C or better: TEL311, 313, 314, 315 and BLE312 and TEL396 completed with a Y AND be a Prof/Early Child Blk 1 student
ECD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	396	Field Experience: Community-Based Early Childhood Education Setting	Observation in classrooms and individual and small group instruction. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
ECD	396	Field Experience: Community-Based Early Childhood Education Setting	Observation in classrooms and individual and small group instruction. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
ECD	400	Foundations of Early Child Education: Birth-Age 8	Foundational basis of the early childhood field, including historical roots, current practices, professional behavior and ethical conduct, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	401	Integrated Curriculum and Assessment: Social Studies and Creative Arts	Presents materials, techniques, and resources for a balanced program of social studies and aesthetic expression appropriate for children in preschool through 3rd grade, with emphasis on the integrated curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Fulton Education students and a Cumulative GPA must be greater than or equal to 2.50 AND a grade of C or better in BLE 408 AND co-enrolled in ECD404, 420, 480 and 496.
ECD	402	Integrated Curriculum and Assessment: Math and Science	Emphasizes developmentally appropriate educational strategies and instructional techniques in teaching mathematics and science to children in preschool through 3rd grade, within an integrated curriculum approach.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of at least 2.5 AND co-enrolled in ECD300, ECD496 and SPE416 AND a grade of C or better in ECD400, 401, 403 and complete at least 1 unit of ECD496.
ECD	403	Educational Environments: Preschool/Kindergarten/Primary Grades	Focuses on interactions between young learners and the physical and social environments encountered in preschool, kindergarten, and primary settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of at least 2.5 AND be co-enrolled in ECD 400, ECD 401 and ECD 496
ECD	404	Teaching Reading and Language Arts in Early Childhood	Development of oral and written language from birth to age 8. Describes developmentally appropriate educational strategies for promoting growth in speaking, listening, reading, and writing.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of at least 2.5 AND completed with a C or better in BLE 408, ECD 406, ECD 476 and ECD 477 AND co-enrolled in BLE 408, ECD 315, ECD 405 and ECD 496
ECD	405	Practicum in Teaching Reading and Language Arts in Early Childhood	Supervised experience teaching reading and language arts at the preschool, kindergarten, and primary-grade (1-3) levels. Developmentally appropriate strategies to promote young children's speaking, listening, reading, and writing abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of 2.5 or greater AND a grade of C or better in ECD 300 or be co-enrolled.
ECD	406	Assessment: Birth-Age 8	Assessment and evaluation principles, techniques, and issues related to children birth through eight years. Test construction and interpretation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Undergraduate Fulton Education student ; ECD 300, 301, 315, 400 and 496 with a C or better or be currently enrolled; Co-requisites: BLE 408, ECD 476 and ECD 477
ECD	414	Interprofessional Practicum	Investigates services and agencies available in the local community to parents of children with special needs. Practical experiences with an intermittent seminar format. Dispositions, knowledge, experiences, and skills necessary for interprofessional collaboration across multiple agencies and programs.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	414-W	Early Childhood Curriculum and Organization	Historical and legal influences on early childhood education; advanced preparation for curriculum designs and developmentally appropriate practices; school organization topics.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be co-enrolled in EED 411, EED 412, EED 496 and RDG 413 AND a grade of C or better in the following: BLE321, RDG322, EDP323 and 324 and completion of EED397 with a grade of Y AND must be a student in Early Childhood Blocks 2 and 3

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ECD	415	Practicum - Literacy Curriculum, Instruction, and Assessment, K-3	Supervised experience teaching reading and language arts in the primary grades.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Co-requisites: ECD 404 or ECD 413
ECD	420	Integrated Curriculum and Assessment: Science	Developmentally appropriate educational strategies and instructional techniques in teaching science to children birth-3rd grade.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student AND have completed with a C or better BLE408, ECD406, 476 & 477 AND be co-enrolled in ECD401, 404, 480 & 496
ECD	470	Early Childhood Education Student Teaching Seminar	Reflective, experienced-based integration of theory and practice; professional development for early childhood teachers.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	476	Integrated Curriculum: Birth-Pre K	Introduction to teaching children birth through pre-K, including classroom organization, curriculum, and professional relationships.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student AND have completed with a C or better ECD300, 301, 315, 400 & 496 AND be co-enrolled in BLE408, ECD406 and ECD477
ECD	477	Student Teaching: Pre-K or Infant/Toddler	Supervised practicum in a pre-K or infant/toddler, school-or center-based program. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		Pre-requisites: Must be a Fulton Education student and have completed with a C or better: ECD300, 301, 315, 400 & 496 AND be co-enrolled in BLE408, ECD406 & ECD476
ECD	478	Student Teaching in Early Childhood (K-3)	Supervised teaching in the K-3 classroom setting. Synthesized experience in curriculum, instruction, classroom organization, and guidance of young children. May be repeated for credit. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Pre-requisites: Must be co-enrolled in ECD 470, and ECD 481
ECD	479	Capstone Seminar in Early Childhood Education	Reflective, experienced-based integration of theory and practice; professional development for early childhood teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Early Childhd Block 3; Must have completed EED 411, EED 412, ECD 414 and RDG 413 with a C or better or be currently enrolled; Must have completed EED 496 with a Y grade or be currently enrolled; ; Must be co-enrolled in ECT 477 & ECT 478
ECD	480	Integrated Curriculum and Assessment: Mathematics	Developmentally appropriate educational strategies and instructional techniques in teaching mathematics to children birth-3rd grade.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student and have completed with a C or better: BLE408, ECD406, 476 & 477 AND be co-enrolled in ECD401, 404, 420, 496
ECD	481	Issues and Practices in Early Childhood Education	Stakeholder analysis of teacher education experiences applicable to preparation that leads to increased educational opportunity and success for diverse children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
ECD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	493	Honors Thesis	Honors Thesis	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
ECD	493	Honors Thesis	Honors Thesis	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
ECD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	496	Field Experience	Applies course content in diverse birth?3rd grade settings through observation, planning child-sensitive curriculum, implementing learning strategies, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisites: Initial Teacher Certification Program Admission
ECD	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
ECD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
ECD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		

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ECE	330	electrical Networks		N	LEC	N	CNV	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	4.		
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
ECN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-3		
ECN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
ECN	201	Economic Issues and Analysis	Introduces tools used in basic economic analyses, emphasizing application to contemporary national and international issues. Not open to students with credit in ECN 211 or 212	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisite: Not open to students with credit in ECN 211, ECN 212, 213, or ECN 214
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	
ECN	213	Honors Macroeconomics	Introduces modern macroeconomic analysis. Theory of national income, unemployment, inflation, and economic growth and its application to economic policy. Not open to students with credit in ECN 313.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must be an Honors student; Co- or Pre-requisite: One of the following courses: MAT 210, MAT 211, MAT 270 or MAT 271.
ECN	214	Honors Microeconomics	Introduces modern microeconomic analysis. Theories of consumer behavior, production, and cost. Output and price determination in a variety of market settings. Not open to students with credit in ECN 314.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must be an Honors student; Must have completed one of the following courses with a grade of C or greater or be currently enrolled: MAT 210, MAT 211, MAT 270 or MAT 271
ECN	221	Business Statistics	Methods of statistical description. Applies probability theory and statistical inference in business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: MAT 211 or MAT 271 with a C or better or currently enrolled
ECN	231	Honors Business Statistics	Applies statistical methods used in business and economic modeling and research. Emphasizes regression analysis and modeling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: Must be an Honors student; Must have completed MAT 211 or MAT 271 with a grade of C or greater or be currently enrolled.
ECN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: Must be an Honors Student; Must have completed one of the following courses with a grade of C or greater or co-enrolling: MAT 210, MAT 211, MAT 270, MAT 271 or MAT 272
ECN	303	Honors Managerial Economics	Develops a basic platform for managerial decision making. Applies basic economic concepts and models to actual business practices.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Barrett Honors student; ECN 214 or 312/314 with C or better
ECN	306	Survey of International Economics	Surveys international trade issues, commercial policy, trade theory, customs unions, and international monetary topics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled. May not enroll if completed IBS 306 with a D or greater
ECN	312	Intermediate Microeconomic Theory	Role of the price system in organizing economic activity under varying degrees of competition.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	313	Intermediate Macroeconomic Theory	Determinants of aggregate levels of employment, output, and income of an economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 214 or ECN 312/314 with C or better.
ECN	315	Money & Banking	Functions of money. Monetary systems, credit functions, banking practices, and central banking policy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	331	Economics of the European Economic Union	Examines broad economic policies seeking to influence individuals' decisions, the history of European economic development and policies, as well as institutions and social systems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	335	South Asia and the World Economy	Develops and discusses alternative theories of trade, development, and growth in the context of south Asia and the world economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre- or corequisites with grade of "C" or better: ECN 211 or 213; ECN 212 or 214; MAT 211 or 271.
ECN	360	Economic Development	Theories of economic growth and development. Role of capital formation, technological innovation, population, and resource development in economic growth.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	365	Economics of Russia and Eastern Europe	Origins and analysis of contemporary institutions. Comparative development and differentiation in the 20th century.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	382	Managerial Economics	Applies economic analysis to managerial decision making. Market analysis in the context of the socio-legal environment. Does not satisfy Economics major requirements.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Not open to Economics or business majors. Must have minimum 2.0 ASU cumulative GPA and minimum of 56 total earned hours, or be a Non-degree seeking student, or any Graduate degree seeking student
ECN	384	Economics of Social Behavior	Applies economic analysis to contemporary behavior; discrimination, work versus leisure, crime, medical care, macroeconomic policies. Does not satisfy Economics major requirements.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must have minimum cumulative GPA of 2.00; Must have minimum of 56 total earned hours or be a non-degree seeking student OR any Graduate degree seeking student
ECN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	404	History of Economic Thought	Development of economic doctrines, theories of mercantilism, physiocracy, classicism, neoclassicism, Marxism, and contemporary economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 214 or ECN 314 with a grade of C or greater or be currently enrolled; Co- or pre-requisite: ECN 213 or ECN 313
ECN	410	Applied Business Forecasting	Applies forecasting techniques in business and institutional environments. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: ECN 221 or STP 226, AND ECN 214 or ECN 312/314 with a grade of C or greater.
ECN	413	Advanced Honors Macroeconomics	Develops and uses various macroeconomic models to evaluate important economic policies. Emphasizes honing students' policy evaluation skills.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Honors student; ECN 213 or 313, AND ECN 214 or 312/314 with a grade of C or greater.

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ECN	414	Advanced Honors Microeconomics	Develops and uses various microeconomic models to evaluate important economic issues. Emphasizes the economics of uncertainty and information.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Honors student; ECN 213 or 313, AND ECN 214 or 312/314 with a grade of C or greater.
ECN	416	Game Theory and Economic Behavior	Introduces game theory and its application to various economic situations under conditions of complete and incomplete information.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 314 with a grade of C or greater or be currently enrolled; Co- or pre-requisite: ECN 213 or ECN 313
ECN	421	Earnings and Employment	Origins of labor movement, analysis of labor unions, labor markets, collective bargaining, and current policy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	425	Introduction to Econometrics	Elements of regression analysis: estimation, hypothesis tests, prediction. Emphasizes use of econometric results in assessment of economic theories.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314, AND ECN 221. ECN 231 or STP 226 with a grade of C or greater
ECN	436	International Trade Theory	Comparative-advantage doctrine, including practices under varying commercial policy approaches. Economic impact of international disequilibrium.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	438	International Monetary Economics	History, theory, and policy of international monetary economics. Balance of payments and exchange rates. International financial markets, including Eurocurrency markets.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-reqs: ECN 213 or ECN 313 with a grade of C or greater or be currently enrolled
ECN	441	Public Economics	Public goods, externalities, voting models, public expenditures, taxation, and budget formation with emphasis on the federal government.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	450	Law and Economics	Economics of the legal system, including analysis of property, contracts, torts, commercial law, and other topics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	453	Industrial Organization and Competition Policy	Development of public policies toward business. Antitrust activity. Economic effects of government policies.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	470	Mathematical Economics	Integrates economic analysis and mathematical methods into a comprehensive body of knowledge within contemporary economic theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	475	Capstone in Economics	Capstone course integrating several areas of economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	L	Pre-reqs: ECN 213 or 313 AND ECN 214 or ECN 312/314 with C or greater; senior standing.
ECN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Min 3.0 ASU cum GPA; ECN 213 or 313, and ECN 214 or 312/314 with a grade of C or greater.
ECN	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6		Pre-requisites: Honors student; W. P. Carey BS or BA student or non degree seeking W.P. Carey student; ECN 213 or 313 AND ECN 214 or 314 with a grade of C or better.
ECN	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6	L	Pre-requisites: Honors student; W. P. Carey BS or BA student or non degree seeking W.P. Carey student; ECN 213 or 313 AND ECN 214 or 314 with a grade of C or better.
ECN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-7		Pre-requisites: Must have completed ECN 313and ECN 314 with a grade of C or greater or be currently enrolled
ECN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-3		
ECN	501	Statistics for Managers	Fundamentals of statistical analysis to aid management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		
ECN	502	Managerial Economics	Applies microeconomic analysis to managerial decision making in areas of demand, production, cost, and pricing. Evaluates competitive strategies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: MBA degree program student
ECN	503	Global Business Environment	Macroeconomic analysis of issues related to economic growth, inflation, interest rates behavior, unemployment, exchange rate determination, and global competitiveness.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a MBA degree program student
ECN	504	History of Economic Thought	Historical development of economic theory. Emphasizes the development of economic analysis from preclassical economics through Keynes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	509	Macroeconomic Theory and Applications	Theory of income, output, employment, and price level. Influence on business and economic environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	510	Microeconomic Theory and Applications	Applies economic theory to production, consumer demand, exchange, and pricing in a market economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	525	Applied Regression Models	Simple linear regression, multiple regression, indicator variables, and logistic regression. Emphasizes business and economic applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:MAT 210 with a grade of D or better or currently enrolled
ECN	527	Categorical Data Analysis	Discrete data analysis in business research. Multidimensional contingency tables and other discrete models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:ECN 525 completed with a D or better, or currently enrolled
ECN	530	Experimental Design	Experimental designs used in business research. Balanced and unbalanced factorial designs, repeated measures designs, and multivariate analysis of variance.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Graduate Students only (degree and non-degree seeking)

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ECN	535	Multivariate Methods	Advanced statistical methods used in business research. Multivariate analysis of association and interdependence.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:ECN 525 completed with a D or better, or currently enrolled
ECN	540	Forecasting	Foundation of statistical forecasts and forecast intervals; applies classical and computer-assisted forecasting methods to business forecasting problems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites:QBA 502, MAT 210 completed with a D or better, or currently enrolled
ECN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey Graduste degree seeking student
ECN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey Graduste degree seeking student
ECN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 712 and ECN 714 with a grade greater than a C
ECN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-12		
ECN	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	711	Macroeconomic Analysis I	Current theories of output, employment, inflation, and asset prices as well as major aggregates. Introduces dynamic optimization techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	712	Microeconomic Analysis I	Theory of production, consumer demand, resource use, and pricing in a market economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	713	Macroeconomic Analysis II	Focuses on growth theory, dynamic general equilibrium models, monetary theory, open-economy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	714	Microeconomic Analysis II	General equilibrium, welfare economics, production, and capital theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	715	Advanced Macroeconomic Analysis	Focuses on current research areas in macroeconomics and monetary theory with emphasis on methods in economic dynamics and numerical techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 711 with a grade of C or greater; Must have completed ECN 713 with a grade greater than a C
ECN	716	Advanced Economic Theory I	Economic behavior under uncertainty; markets and contracts under asymmetric information; the theory of games with incomplete information and applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 714 with a grade of C or greater; Must have completed ECN 712 with a grade greater than a C

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ECN	717	International Macroeconomics	Intertemporal approach to the current account, international business cycles, international risksharing and home bias, models of exchange rate determination, balance of payment crises, sovereign debt and default.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		
ECN	721	Labor Economics	Develops basic theoretical models for analyzing labor market issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	722	The Aggregate Labor Market	Extensions/criticisms of labor market theories. Applications to a variety of policy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	725	Econometrics I	Problems in the formulation of econometric models. Emphasizes estimation, hypothesis testing, and forecast of general linear models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	726	Econometrics II	Estimation and inference of qualitative and limited dependent variable models as well as general multiple equation models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 712 and ECN 714 with a grade greater than a C
ECN	727	Quantitative Methods in Economics	Generalized method of moment estimation, estimation with censored and truncated samples, nonlinear models, panel-data models, econometrics of nonstationarities.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater;
ECN	736	International Trade Theory	Theories of comparative advantage and their empirical verification. Theory and political economy of commercial policy. Resource transfers and the role of the multinational corporation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	738	International Finance	Foreign exchange market, balance of payments, and international financial institutions and arrangements; theory and applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	741	Public Economics	Economics of collective action, public spending, taxation, and politics. Impact of central governmental activity on resource allocation and income distribution.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: W.P. Carey Graduate degree-seeking students only; Must have completed ECN 712 with a grade of B or greater; Co-requisite: ECN 714
ECN	753	Industrial Organization	Analyzes structure, conduct, and performance in industrial markets; the economics of organizations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	760	Economics of Growth and Development	Economic problems, issues, and policy decisions facing the developing nations of the world.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 711 and ECN 712 with a grade greater than a C; Co-requisites: ECN 713 and ECN 714
ECN	770	Mathematics for Economists	Surveys mathematical ideas encountered in economics and econometrics: nonlinear programming, the Kuhn-Tucker theorem, concave programming, optimization over time.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	784	Internship		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-15		
ECN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-15		
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	SB	
ECT	311	Foundations/Programs/Policies/Practices	Foundations of early childhood education, including program, policies, practices, and early intervention; history, legislation, issues and trends, models, ethics, goals, and benefits of early childhood education and intervention.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 312, ECT 313, ECT 314, ECT 315 and ECT 396
ECT	314	Developmental Discipline/Classroom Organization	Theories and strategies to guide children's development toward becoming self governing; typical and atypical behaviors; implementing age-appropriate classroom management techniques that foster individual, social, and academic competence.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 311, ECT 312, ECT 313, ECT 315 and ECT 396

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECT	321	Administration/Evaluation of EC Programs	Administration and evaluation of early childhood programs. Emphasizes planning and evaluation; regulations; health, nutrition, and safety; operations, budgeting, and supervision of personnel.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 2 ECT, BLE 312, ECT 322, ECT 323, ECT 324 and ECT 397
ECT	322	Emergent Language/Lit I Development/Instruction/ Assessment	Language and literacy development; language acquisition; methods of facilitating oral language in relation to emergent reading and writing; methods of facilitating early literacy development; clinical observation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 2 Early Childhood , BLE 312, ECT 321, ECT 323, ECT 324 and ECT 397
ECT	324	Social Studies / Creative Arts in Early Years	Social studies and creative arts standards, curriculum, and instructional and assessment strategies for all young children; developmentally appropriate methods and strategies for effective learning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 2 Early Childhood , BLE 312, ECT 321, ECT 322, ECT 323 and ECT 397
ECT	397	Field Experience II	Instruction, observation, and management of small groups and the whole class. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Block 2 Early Childhood , BLE 312, ECT 321, ECT 322, ECT 323, ECT 324
ECT	411	Science as Inquiry: Development, Instruction, and Assessment	Content, instructional strategies, and assessment in early childhood science; age-appropriate standards; active investigation of science concepts; inquiry and collaborative learning; connections between science and other subject areas. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 412, ECT 413, ECT 414 and ECT 496
ECT	412	Early Math:Development/Instruction/Assessment	Content, instructional strategies, and assessment in early childhood mathematics; age-appropriate standards; active investigation of mathematics concepts and ideas; connections between mathematics and other subject areas.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 413, ECT 414 and ECT 496
ECT	413	Language/Literacy II Development/Instruction/Assessment	Extends ECT 322; language and literacy development; language acquisition; methods of facilitating oral language in relation to emergent reading and writing; methods of facilitating early literacy development; clinical observation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 412, ECT 414 and ECT 496
ECT	414	Social/Educational Policies Young Children/Families	Social policies at the national and state levels; values and assumptions of policies; political factors shaping policy and implementation; links between policy, educational practice, schools, and family functioning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 412, ECT 413 and ECT 496
ECT	477	Student Teaching: Ages 0-4	Student teaching in preschool classrooms serving children from birth to age 4; integrates all previous course work. Eight-week placement required. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	5.		Co-requisites: Early Childhood students; ECT 478 and ECT 479 or PDS (Professional Development School) student as appropriate
ECT	478	Student Teaching: K-3	Student teaching in kindergarten through grade 3 classrooms; integrates all previous course work. Eight-week placement required. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	5.		Co-requisites: Early Childhood students; ECT 477 and ECT 479 or PDS (Professional Development School) student as appropriate
ECT	479	Captstone Seminar in ECT	Reflective, experience-based integration of theory and practice; professional development for preschool through grade 3 teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 477 and ECT 478 or PDS (Professional Development School) student as appropriate
ECT	496	Field Experience III	Instruction and management of small groups and substantial work with the whole class. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 412, ECT 413 and ECT 414
ECT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
EDA	501	Competency/Performance in Educational Administration	Nature of educational administration and the concept of competency as it applies to educational administration.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	511	School Law	Constitutional, statutory, and case law that relates to all school personnel, pupils, the school district, and other governmental units. Contracts, dismissals, tenure, retirement, pupil injuries, liability of personnel and district, school district boundary changes, and bonding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	515	Administration and Technology in Learning	Provides students with hands-on exposure to technology that assists with school improvement initiatives.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	525	Human Relations and Societal Factors in Education	Interrelations between problems of educational administration and interdisciplinary social sciences. Communications skills, morale, authority, and perception. Concepts from political science, economics, and social-psychology useful to the administrator.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	534	Concepts of Learner-Centered Leadership	Principles, theories, attributes, and skills related to learner-centered leadership.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	544	Public School Finance	Measures of ability, efforts, and educational need; capital outlay funding; tax revenues; federal, state, and local financing alternatives; major issues and trends in the financing of public education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	548	School, Family, and Community Connections	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	555	Educational Facility Planning	School building needs, educational planning for facilities, responsibilities of architects, duties of contractors, and equipping and furnishing of school buildings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	571	School Business Management	Purchasing, budgeting, accounting, payroll management, auditing, financial reporting, insurance, and administration of nonteaching personnel and services.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	573	Human Resources Administration	Organization for human resources services; development of policy to govern the human resources function and its related processes.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	576	The School Principalship	Problem and lab approaches used to provide application of administrative activities of elementary and secondary schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
EDA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	611	Educational Policy and the Law	Emphasizes policy analysis and application of federal and state law to policy evaluation and development in public schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	624	Organizational Development and Management of Schools	Current organizational patterns for public schools. Emphasizes the organizations, human, and social dimensions on organizations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	645	Leadership Development for Education Leaders	Principles, theories, attributes, and skills related to individual leadership development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	675	Politics of Education	Uses social science theory and research to consider the political context of educational policy making.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	676	The School Superintendency	Critical examination of the school superintendency and the primary functions of this educational position. Includes the duties, responsibilities, activities, and problems of the school superintendent. Examines the unique leadership role of the school superintendent.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	677	Foundations of Educational Reform Movements	Historical and contemporary survey of curricular reform movements in the United States with emphasis on equity and social justice issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	679	Administration of Special Programs in Education	For personnel administering special educational services; responsibilities of superintendents, principals, supervisors, and directors for special education, student personnel, audiovisual, library science, and others.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	685	Education in Global Contexts	Global perspectives on education in contemporary society with emphasis on social, political, and economic factors that affect access and equity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-6		
EDA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	711	Administrative Leadership	Emphasizes research in leadership; application of research findings to administrative and supervisory functions in educational endeavors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	722	Administration of Instructional Improvement	Recent research relating to administrative and supervisory responsibilities for the improvement of the educational program. Effective processes by administrators, supervisors, consultants, and coordinators.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	723	Diversity in Education for School Leaders	Discusses current issues and leadership strategies for meeting the needs of diverse student populations combating inequity and inequality in education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EDA	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Educatnl Policy, Leadership & Curriculum T	1.		
EDA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Educatnl Policy, Leadership & Curriculum T	1-15		
EDA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-3		
EDA	501	Competency/Performance in Educational Administration	Nature of educational administration and the concept of competency as it applies to educational administration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	511	School Law	Constitutional, statutory, and case law that relates to all school personnel, pupils, the school district, and other governmental units. Contracts, dismissals, tenure, retirement, pupil injuries, liability of personnel and district, school district boundary changes, and bonding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	511-W	School Law	Interpreting state and federal law for application in school setting. Includes statutory authority for administrators, liability, and student constitutional rights.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	512	Critical Issues in Educational Leadership	Legal and ethical concepts of educational practices in federal and state laws affecting charter and independent schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	514	Leadership in Curriculum and Assessment	Curriculum and assessment responsibilities of school administrators.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	521	Evaluation of Teaching Performance	In-depth analysis of legal basis of teacher appraisal, teacher competency, measurement of teacher performance, and application of performance appraisal systems.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	524	Theory and Application of Educational Administration	History and development of public school administration in the United States; current organizational patterns for public education at local, intermediate, state, and national levels; current theoretical positions in educational administration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	544	Public School Finance	Measures of ability, efforts, and educational need; capital outlay funding; tax revenues; federal, state, and local financing alternatives; major issues and trends in the financing of public education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	547	Marketing and Community Relations for Educational Entrepreneurs	Strategic marketing and community relations concepts and their application, formulation, and execution in charter and independent schools and related services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	548	School, Family, and Community Connections	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	548-W	Community Relations in Education	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	555	Educational Facility Planning	School building needs, educational planning for facilities, responsibilities of architects, duties of contractors, and equipping and furnishing of school buildings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	556	Management and Human Resources for Educational Entrepreneurs	Entrepreneurial leadership and organization theory applied to managing human resources in competitive educational organizations by increasing the effectiveness of decision making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	557	Facilities Planning for Educational Entrepreneurs	Legal and practical implications involved in designing or refurbishing charter school facilities to maximize space to facilitate student development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	558	Financial Planning and Reporting for Educational Entrepreneurs	Financial planning and reporting concepts, requirements, and procedures for charter and independent schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	571	School Business Management	Purchasing, budgeting, accounting, payroll management, auditing, financial reporting, insurance, and administration of nonteaching personnel and services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	572	School-Site Business and Human Resources	Effective ethical models and strategies for organizing and administering the conduct of school site human resources administration and business affairs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	573-W	School Personnel Administration	Organization for personnel services; development of policy to govern selection, orientation, placement, remuneration, transfers, separations, and development of morale among instructional and noninstructional personnel.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	576	The School Principalship	Problem and lab approaches used to provide application of administrative activities of elementary and secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	576-W	Critical Issues in Educational Leadership	Explores current critical issues in school leadership, including student support and relationships with governmental agencies and the community.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	634	Instructional Leadership	Theory, practice, and issues in school change and reform with a focus on leading change efforts at the school site.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	675	Politics of Education	Uses social science theory and research to consider the political context of educational policy making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	679	Administration of Special Programs in Education	For personnel administering special educational services; responsibilities of superintendents, principals, supervisors, and directors for special education, student personnel, audiovisual, library science, and others.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	701	Assessment Policies, Issues, and Practices	Critical thinking about assessment data and other information sources to make inferences, judgments, and predictions about reality in schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	704	Leading Change in Educational Organizations	Develops understanding of dynamic and systemic nature of organizations, with emphasis on leadership for building organizational capacity and learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	772	School District Human Resources and Business Management	Effective ethical models and strategies for organizing and administering the conduct of school site human resources administration and business affairs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	773	The Superintendency and School District Leadership Roles and Responsibilities	Examines management roles and responsibilities of public school district superintendents and other leaders in identifying and addressing critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDC	510	Introduction to Gifted Education	Introduces gifted education and classroom applications in pre-K-12. Focuses on identification of giftedness and aligning instruction with specific needs and abilities of diverse gifted learners. Credit is allowed for only EDC 510 or 410.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	515	Social and Emotional Development and the Gifted Learner	Overview on matching instruction with the specific needs and abilities of diverse gifted learners with a focus on social and emotional needs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	542	Outdoor Education	Interdisciplinary field-oriented course designed to provide educators with basic knowledge of outdoor education and its relationship to the total school curriculum. Includes assigned fieldwork.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Students who have credit in EDC 442, may not enroll in EDC 542
EDC	560	Principles of Instructional Technology	Examines effective practices related to instructional technologies, including classroom delivery, student engagement, and evaluation of resources.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	562	Planning and Designing Curriculum with Media	Planning and design of curriculum and effective learning experiences supported by technology to maximize student learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	565	Research-Based Phonics for the K-8 Classroom	Current research in phonics instruction, including systematic and analytic approaches, and their application to classroom practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	568	Developing and Using Video in Instruction	Techniques for developing and using video for instruction; methods and materials for teaching video production in schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
EDC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EDC	320	Integrated Learning Experience I: Learning Climate	Explores factors contributing to a positive and productive classroom learning environment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	325	Integrated Learning Experience II: Instructional Design and Implementation	Design and implementation of developmentally appropriate instruction, and the alignment of instruction with district and state academic standards.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisite: must be in the ELEM EDUCATION BLK 2 professional program
EDC	330	Literacy I: Emerging Literacy and Phonemic Awareness	Development of language from birth to age 8, and appropriate strategies for promoting growth in speaking, listening, reading, and writing.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	335	Literacy II: Intermediate Literacy and Phonetic Principles	Strategies for teaching literacy in intermediate elementary classrooms, the application of phonetic principles to instruction, and integrating literacy across disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 2 professional program
EDC	340	Writing and the Professional Educator	Professional writing focused on foundational issues in education, including the culture of schooling, current social contexts, and educational law.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
EDC	345	Math Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing mathematics in grades K-8. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 2 professional program
EDC	350	Educational Technology I: Applications	Module focused on basic technological skills needed for managing classroom instruction.	N	LAB	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: must be in the ECEDC1 professional program. Co-requisite: EDC474
EDC	351	Educational Technology II: Instruction and Evaluation	Module focused on technology as an instructional medium, evaluation, and effective classroom use.	N	LAB	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: must be in the ELEM EDUCATION BLK 1 professional program. Co-Requisite: EDC474
EDC	352	Educational Technology III: Design	Module focused on instructional design utilizing a variety of technologies, including multimedia.	N	LAB	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: must be in the ELEM EDUCATION BLK 1 professional program. Co-requisite: EDC474
EDC	354	Educational Media in the Classroom	Designing and implementing educational media into the K-12 curriculum. Includes instructional design, evaluation of sources, and introduction to multimedia applications.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	355	Accommodating Instruction for Diverse Learners	Identifying and accommodating learners with special needs, including classroom adaptations in instruction and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EDC	405	Classroom Management K-12	Strategies for effective classroom management in K-12 schools. Includes models, application, and evaluation of a variety of management systems.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	410	Introduction to Gifted Education	Introduces gifted education and implications to pre-K-12 classroom instruction. Focuses on identification of giftedness and planning instruction for diverse gifted learners. Credit is allowed for only EDC 410 or 510.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	420	Integrated Learning Experience III: Assessment	Principles related to classroom assessment, including the alignment of assessment to curriculum, test interpretation, and a variety of assessment techniques.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisites: must be in the ELEM EDUCATION BLK 3 professional program and have a University cumulative GPA of 2.50 or greater
EDC	425	Integrated Learning Experience IV: Advanced Management and Professional Knowledge	Explores issues related to professional knowledge, including interdisciplinary instruction, management, and the impact of the community on students' learning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisites: Must be in the ELEM EDUCATION BLK 4 professional program. Co-requisite: EDC484

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EDC	430	Literacy III: Interventions	Strategies for accommodating students struggling with learning, with a focus on the areas of literacy acquisition and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: must be in the ELEM EDUCATION BLK 3 professional program and have a University cumulative GPA of 2.50 or greater
EDC	440	Science Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing sciences in grades K-8. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 3 professional program
EDC	442	Outdoor Education	Interdisciplinary field-oriented course designed to provide students with basic knowledge of outdoor education and its relationship to the total school curriculum. Includes assigned fieldwork.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Students who have credit for EDC 542, may not enroll in EDC 442
EDC	450	Social Studies Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing social studies in grades K-8.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 3 professional program
EDC	455	Diverse Learners in the K-8 Classroom	Identifies and implements instructional practices for students with diverse needs in the elementary classroom. Laws related to special populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	460	Principles of Curriculum and Instruction in the K-8 Classroom	Current research and practices related to the K-8 curriculum, including application of motivation and learning theories, lesson development, and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	465	Literacy Instruction in the K-8 Classroom	Principles of a developmentally appropriate elementary literacy curriculum and related instructional practices. Encompasses reading, language arts, writing, and oral expression.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	474	Field Experience	Applies course content in a K-8 school. Emphasis on observation, classroom management, planning and delivery of instruction, and assessment. Fee.	Y	FLD	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EDC	475	Social Studies Instruction in the K-8 Classroom	Principles of a developmentally appropriate social studies curricula and related instructional practices. Emphasizes cultural diversity and implications of a global society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	480	Theory of Mathematics and Science Instruction	Examines theoretical and conceptual frameworks of elementary mathematics and science instruction. Emphasizes academic content standards and prerequisite knowledge. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		Pre-requisites: must be enrolled/enrolling in EDC425 and be in the ELEM EDUCATION BLK 4 professional program
EDC	485	Science Instruction in the K-8 Classroom	Principles of a developmentally appropriate science curricula and related instructional practices, with an emphasis on learner-centered methodologies. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EDC	495	Mathematics Instruction in the K-8 Classroom	Principles of a developmentally appropriate mathematics curricula and related instructional practices, including a range of learning theories and their application. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
EDC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EDP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	302	Assessment and Evaluation in Education	Applies assessment and evaluation principles to education contexts, using a case format.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
EDP	303	Human Development	Selected aspects of child and adolescent development. Emphasizes possibilities for influence by teachers and parents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	L or SB	Pre-requisites: Education or BIS students or completion of first year composition
EDP	310	Educational Psychology for Non-Teachers	Human behavior in educational situations. Individual differences, factors affecting learning, behavioral and cognitive learning, motivation, testing, and assessment.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	SB	
EDP	313	Childhood and Adolescence	Principles underlying total development of pre- and early-adolescent children. Emphasizes physical, intellectual, social, and emotional development with practical implications for teachers. Meets ADE requirement for one course in early adolescent psychology for middle grade endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	SB	
EDP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	454	Statistical Data Analysis in Education	Role of data analysis in research and decision making. Elements of exploratory data analysis, descriptive indexes, and statistical inference.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	
EDP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		

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EDP	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6		
EDP	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	L	Pre-requisites: Must be an Honors student
EDP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-7		
EDP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
EDP	502	Introduction to Data Analysis	Descriptive statistics, visual approaches, estimation, and inferential methods for univariate and bivariate educational research problems. Experience using statistical software.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	503	Introduction to Qualitative Research	Terminology, historical development, approaches (including ethnography, ethnomethodology, critical theory, grounded theory, and hermeneutics), and qualitative versus quantitative social sciences; methods of inquiry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	510	Essentials of Classroom Learning	Theoretical and empirical foundations of learning in the classroom milieu. Critical exposure to research and method in instructional psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	513	Child Development	Examines problems and achievements experienced by children growing up in a technological society. Emphasizes discovering the child's perspective.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	523	Educational Assessment	Increases teachers' and others' competence in classroom assessment, grading, and testing. Emphasizes integration of curriculum, instruction, and assessment.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	529	Lifespan Human Development	Issues and models of human development as it occurs across the lifespan.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	530	Theoretical Issues and Research in Human Development	Psychological theories, research, and methods relevant to human development, emphasizing the relations between early development and later performance.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	535	Applied Behavior Analysis	Principles of conditioning as applied to behavior. Current research on the experimental analysis of behavior in educational psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	536	Physiology of Behavioral Disorders	Critical study of nervous system, brain function for fundamental behaviors, and system dysfunctions in mental/neurological disorders.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	540	Theoretical Views of Learning	Classical and cognitive theories of learning, plus recent orientations. Illustrative experimental and rational foundations; implications for educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	541	Motivating Students to Learn	Examines multiple perspectives on motivation and the management of learning environments as bases for reflecting on educational practice.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	542	Research Methods in the Learning Sciences	Students read, design, and carry out original research in the learning sciences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student and completion of EDP 540 with a grade of C or better
EDP	544	Psychology of Reading	Alternate analyses of the reading process; designs and procedures for investigating instructional and noninstructional variables related to reading achievement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	545	Higher-Order Processes in the Learning Sciences	Examines original research on induction, deduction, analogy and transfer, knowledge representation, and other issues in learning.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	550	Introduction to Measurement in Education	Nature and types of educational measures. Critiquing and selecting appropriate measuring devices. Constructing measuring devices. Social controversies about tests.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	552	Multiple Regression and Correlation Methods	Educational applications of regression techniques. Quantitative and qualitative predictors, curvilinear trends, and interactions. Emphasizes analyzing data and interpreting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	554	Analysis-of-Variance Methods	Educational applications of ANOVA techniques. Between- and within-subjects designs, multiple comparisons. Emphasizes using statistical software and interpreting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	560	Individual Intellectual Assessment	Issues in administration and interpretation of individual intelligence tests. Theoretical basis, ethical considerations, and diagnostic use of test results. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: School Psychology Ph.D or Counseling Psychology Ph.D

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDP	561	Lab in Psychological Assessment	Lab experience in administration, scoring, and interpretation of individual intelligence tests.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Co-enrolled in EDP 560
EDP	562	School Psychology: Ethics, Theory, and Practice	Provides information regarding the ethics, history, and theory of current school psychology practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	563	Interventions in School Psychology	Examines case-based consultation and consultation research relevant to school psychology practice.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	564	Academic Interventions	Skills-building course emphasizing academic interventions and outcome-based educational decisions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	566	Diagnosis of Learning Difficulties	Clinical diagnosis of learning difficulties, emphasizing specific academic problems. Use and interpretation of diagnostic instruments in practical school situations. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDP 560 and 562 with a grade of B or better
EDP	567	School Psychological Services to Minority Students	Historical perspectives and major issues in psychological and academic assessment and interventions with minority school children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	568	Diagnosis and Interventions for Children and Adolescents with Emotional Handicaps	Clinical diagnosis of emotional handicaps in children and adolescents with emphasis on interpretation of diagnostic instruments and designing appropriate interventions in school settings. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	651	Methods and Practices of Qualitative Research	Advanced course for students familiar with theory and extant work. Topics include data collection, analysis, reporting, and an extensive fieldwork project.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of COE 503 with a grade of C or better
EDP	652	Multivariate Procedures for Data Analysis	Educational applications of multivariate methods, including MANOVA, discriminant analysis, and exploratory factor analysis. Emphasizes analyzing data and reporting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDP	654	Structural Equation Modeling in Educational Research	Educational applications of confirmatory factor analysis, path analysis, and full latent variable models. Experience in conducting analyses and reporting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDP	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDP	513	Child Development	Examines problems and achievements experienced by children growing up in a technological society. Emphasizes discovering the child's perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDP	514	Psychology of the Adolescent	Cognitive, physical, and social development of adolescents in contemporary society. Impact of family, school, and workplace on adolescent development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDP	523	Educational Assessment	Increases teachers' and others' competence in classroom assessment, grading, and testing. Emphasizes integration of curriculum, instruction, and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EDP	303	Human Development	Selected aspects of child and adolescent development. Emphasizes possibilities for influence by teachers and parents.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L or SB	Pre-requisites: Education or BIS students or completion of first year composition
EDP	311	Educational Psychology for Future Teachers	Planning and conducting effective instruction based on learning theories and principles.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3	SB	

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EDP	311	Educational Psychology for Future Teachers	Planning and conducting effective instruction based on learning theories and principles.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3	SB	
EDP	313	Childhood and Adolescence	Principles underlying total development of pre- and early-adolescent children. Emphasizes physical, intellectual, social, and emotional development with practical implications for teachers. Meets ADE requirement for one course in early adolescent psychology for middle grade endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
EDP	323	Professional Development, Learning, and Motivation	Applies educational psychology principles in classrooms; strategies for building classroom community; learner-centered and intentional teaching; and proactive professional development.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 321, BLE 322, BLE 324 and EED 397 OR Elem Ed, BLE 321, EED 324, EED 397 and RDG 322 OR PDS (Professional Development School) student as appropriate
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	
EDT	323	Computer Applications	Introduces database design principles using Microsoft Access and general programming concepts using the Visual Basic.Net programming language.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	Pre-requisites: EDT 321 or CSE 180 or any ACO, CIS, CSE, or CST course with a D or better or currently enrolled
EDT	329	Games, Simulations, and Virtual Environments	Focuses on the use of Gaming, Simulations, and Virtual Environments (GS/VE) in education and instruction. Examines how educational professionals and other practitioners can leverage students interests in digital culture to accelerate their learning. Participants explore the foundational, social, and cultural implications of these new media and the power they hold to engage learners in new ways. Discusses historical overview of GS/VE with an emphasis on educational applications. Analyzes the distinctive features of GS/VE from different pedagogical, psychological (cognitive/emotional), social, and entertainment perspectives. Participants learn how to analyze the design of games, simulations, and virtual environments, creating evaluative criteria for the selection of products in educational environments.	N	LEL	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDT	405	Presentation Technology for Multimedia	Explores multimedia hardware and software used in creating presentations for educational, corporate, and commercial applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	406	Computer Graphics and Animation	Study and application of design and animation techniques for use in video or computer-based presentations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	455	Authoring Tools	Use of current authoring tools to design and deliver computer-based instructional materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
EDT	501	Foundations and Issues in Educational Technology	Introduces educational technology. Examines accomplishments and issues in the field.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	502	Design and Development of Instruction	Design, development, and formative evaluation of objectives-based instructional materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	503	Instructional Media Design	Uses media selection, design, and production principles to prepare design specifications for solutions to instructional messages and products.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	504	Development of Computer-Based Instruction	Systematic design, development, and formative evaluation of computer-based instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	505	Multimedia Presentation Techs	Explores the design of multimedia presentations and the utilization of tools and resources to effectively deliver those presentations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	506	Educational Evaluation	Procedures for evaluating educational programs, training systems, and new-technology applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	507	Trends in Performance Improvement	Introduces the field of human performance technology. Emphasizes the analysis of performance problems, their causes, and interventions.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: EDT 501 with B or better
EDT	511	Technology Applications in Education	Integrates and evaluates emerging technologies into K-12 and adult teaching and learning.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EDT	520	Educational Technology and Training	Applies educational technology to training and human performance systems in business, industry, and government; emphasizes trends and project management.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 501 with a grade of C or better
EDT	523	Distance Education Theory and Practice	Explores development of distance learning principles by examining national and international systems and applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	525	Web Resources for Educators	Explores Web-based and distance learning applications for educators.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	527	Instructional Video Production	Design and production of instructional video.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 503 with a grade of C or better
EDT	528	Development of Web-Based Instruction	Design and development of online instruction using advanced technologies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	530	Technology Integration Methods across the Curriculum	Examines a constructivist approach to technology in education. Investigates technology as a catalyst for rethinking instructional goals and practices.	Y	LEL	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	531	Hypermedia	Design, development, and evaluation of open-ended, nonlinear computer-based tools and applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 455 with a grade of C or better
EDT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completion of EDT 501, 502, and EDT 503 with a grade of C or better
EDT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completion of EDT 501, EDT 502, and EDT 503 with a grade of C or better
EDT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	594	Conf and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	634	Technoliteracies	Online course explores the nature of digital communications and expanding definitions of what counts as text and as literate expression.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must be Post Bac, Non Degree Graduate or Degree Graduate. Students who have credit for RDG 634, may not enroll in EDT 634
EDT	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
EDT	701	Research in Educational Technology	Review and analysis of research studies in educational technology. Methodology for designing, conducting, and reporting educational technology research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 501 and 502 with a grade of C or better
EDT	702	Research in Technology-Based Education	Critical exposure to theories, research, and methods in technology-based education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDT	703	Research in Distance Education	Seminar with emphasis on research in telecommunications and distance education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: EDT 523 with a grade of C or better
EDT	704	Emerging Technologies in Education	Examines the role and impact of emerging technologies in education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
EDT	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completed EDT 501, EDT 502, and EDT 503 with a C or better
EDT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisites: Completion of EDT 701 with a grade of C or better
EDT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	530	Technology Integration Methods across the Curriculum	Examines a constructivist approach to technology in education. Investigates technology as a catalyst for rethinking instructional goals and practices.	Y	LEL	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
EDT	545	Using the Internet in Education	Explores the Internet as an educational tool for research, inquiry-based learning, and online learning communities. Incorporates constructivist theory.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
EDT	546	Using Technologies for Presentations	Students create presentations appropriate for educational settings and electronic portfolios on CD-ROMs using scanners, digital/video cameras, and multimedia software. fee	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
EDT	547	Technology in Language Arts and Social Studies Education	Examines numerous ways technology is used to enhance teaching and learning in language arts and social studies classrooms.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
EDT	548	Technology in Mathematics and Science Education	Examines numerous ways technology is used to enhance teaching and learning in mathematics and science classrooms.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
EDT	549	Using the Internet and Case Studies to Solve Educational Problems	Provides a model of the use of distance education technologies.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
EDT	555	Advanced Web Site Design and Development	Prepares technology leaders to design and create interactive school and district Web sites.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
EDT	556	Managing School Information Systems	Applied course based on constructivist theory that examines the techniques and strategies of networking information systems within educational settings.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
EDT	575	Critical Issues in Technology	Exploration and critical analysis of theoretical issues related to using technology in education. Students do literature reviews for EDT 593.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
EDT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDT	180	Computer Literacy	Introduces personal computer operations and their place in society. Problem-solving approaches using databases, spreadsheets, and word processing. Credit is allowed for only EDT 180 or 321.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	Students may not sign up for EDT 180 who have received a C or better in EDT 321.
EDT	300	Computers in Education	Introduces general computer applications, teacher utility programs, World Wide Web, and evaluation of educational software. Required for majors in the Mary Lou Fulton College of Education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of personal Web site. 2hours lecture, 2 hours lab.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	Studetns may not sign up for EDT 321 who have received a C or better in EDT 180
EED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EED	510	Teaching Writing in the Elementary Classroom	Develops rationale, theory, and related practices for teaching writing in K-8 classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	511	Principles of Curriculum Development	Contemporary curriculum theories. Curriculum as an interrelated entity. Principles of conceiving and effecting change.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	526	Communication Arts in the Elementary School	Critical examination of school language arts teaching, focusing on theoretical assumptions regarding oral- and written-language development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	529	Science in the Elementary School	Problems and trends of current programs. Development of a balanced and articulated science program.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	530	Outdoor/Environmental Education	Use of various outdoor settings as laboratories for classroom-related experience, study, observation, inquiry, research, and recreation. Includes strategies and materials for developing environmental literacy.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
EED	537	Mathematics in the Elementary School	Contemporary mathematics teaching. Content, materials, and approaches to instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	538	Teaching Social Studies with Literature	Develops the rationale, resources, and strategies for adopting a literature-based approach to social studies teaching in grades K-8.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	548	Teaching Geometry 5-8	Practical ideas and activities for teaching informal geometry grades 5-8, based on research on how students learn geometry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	576	Field Experience	Applies course content in elementary classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	0-3		Prerequisite: Valid copy of AZ DPS fingerprint card on file at ASU
EED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	581	Diagnostic Practices in Mathematics	Specific skills in diagnosing and treating children's learning difficulties in mathematics. Includes practicum experiences, both on and off campus, in identifying strengths and weaknesses and initial remediation.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EED	720	Language in Education	Sociolinguistic seminar on language issues in education, including language acquisition, classroom interaction, language attitudes, relation language, and class-gender ethnicity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	730	Discourse Analysis in Education	Surveys issues in and approaches to discourse analysis in educational research, with focus on students' projects using discourse analysis.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	511	Principles of Curriculum Development	Contemporary curriculum theories. Curriculum as an interrelated entity. Principles of conceiving and effecting change.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	521	Instructional Planning and Management in the Inclusive Classroom	Planning and delivering instruction; organizing and managing classrooms; making adaptations for English language learners and students with special needs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	526	Communication Arts in the Elementary School	Critical examination of school language arts teaching, focusing on theoretical assumptions regarding oral- and written-language development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	529	Science in the Elementary School	Problems and trends of current programs. Development of a balanced and articulated science program.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	531	Teaching with Educational Technology	Focuses on using technology in K-12 classrooms. Addresses the integration of technology in all curricular areas for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	537	Mathematics in the Elementary School	Contemporary mathematics teaching. Content, materials, and approaches to instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	538	Teaching Social Studies with Literature	Develops the rationale, resources, and strategies for adopting a literature-based approach to social studies teaching in grades K-8.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	564	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	576	Field Experience	Applies course content in elementary classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	0-3		
EED	578	Student Teaching in the Elementary School	Supervised teaching for postbaccalaureate students, synthesized experience in curriculum, instruction, and classroom management.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
EED	578	Student Teaching in the Elementary School	Supervised teaching for postbaccalaureate students, synthesized experience in curriculum, instruction, and classroom management.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
EED	578-W	Student Teaching in the Elementary School	Student teaching in elementary education setting for students in the MEd with Concentration in Teacher Certification.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
EED	579	Apprentice Teaching in Elementary Education	Apprentice teaching in elementary school classrooms. Must be taken four times for a total of 9 semester hours. Lab, field experience. Fee.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

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EED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
EED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	324	Social Studies in Elementary Schools	Social studies education standards, curriculum, and instructional and assessment strategies for all children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed students; BLE 321, EDP 323, EED 397 and RDG 322 OR PDS (Professional Development School) student as appropriate
EED	331	Integrated Children's Literature with a K-3 Focus	Examines selection and use of a wide variety of children's literature to support the K-3 curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission Co-requisites: RDG 415, RDG 431, SPE 416, EED 496 and EED 433
EED	332	Integrated Children's Literature with a 4-8 Focus	Examines selection and use of a wide variety of children's literature to support the 4-8 curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission
EED	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
EED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	396	Field Experience I		N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EED	397	Field Experience II	Observation, instruction, and management of small groups and the whole class. fee	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Elem Ed/ESL or Elem Ed/BLE, BLE 321, BLE 322, BLE 324 and EDP 323 OR Elem Ed; BLE 321, EDP 323, EED 324 and RDG 322 OR PDS (Professional Development School) student as appropriate
EED	411	Science in Elementary Schools	Science education standards, curriculum, instructional and assessment strategies for all children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, BLE 414, EED 412, EED 496 OR Elem Ed, EED 412, EED 414, EED 498 and RDG 413 OR PDS (Professional Development School)
EED	412	Mathematics in Elementary Schools	Methods of teaching mathematics to all students at the K-8 level, instructional planning and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EED	412	Mathematics in Elementary Schools	Methods of teaching mathematics to all students at the K-8 level, instructional planning and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, BLE 414, EED 411, EED 496 OR Elem Ed, EED 411, EED 414, EED 496 and RDG 413 OR Special Ed, SPE 318, SPE 423, SPE 424, SPE 431, SPE 496 OR PDS (Professional Development School)
EED	414	Elementary School Curriculum and Organization	Rationales for instructional curricula; alternative curriculum designs and broad-based content; selected topics in school governance, finance, and law.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student, EED 411, EED 412, RDG 413 and EED 496 OR PDS (Professional Development School) student
EED	420	Science Methods, Management, and Assessment in the Elementary School	Examines philosophies of science and how these relate to the implementation, management, and assessment of science teaching. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; BLE 408, EED 455, EDT 300, RDG 432 and EED 496 completed with C or better or currently enrolled
EED	420	Science Methods, Management, and Assessment in the Elementary School	Examines philosophies of science and how these relate to the implementation, management, and assessment of science teaching. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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EED	433	Language Method Management and Assessment	Theory on the social nature of oral and written language and congruent teaching, management, and assessment practices. Lecture, discussion, lab.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EED	444	Organizing the Classroom Culture	Examines how teachers can create and maintain a classroom learning community within the context of an elementary school program.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EED	444	Organizing the Classroom Culture	Examines how teachers can create and maintain a classroom learning community within the context of an elementary school program.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EED	455	Social Studies Methods, Management, and Assessment in the Elementary School	Teaching methods, classroom management strategies, and assessment techniques for social studies instruction in the elementary grades.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; EED 433, RDG 415, EED 498, RDG 431 and SPE 416 completed with C or better or currently enrolled; EED 496 with Y or currently enrolled
EED	464	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EED	478	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum, instruction, and classroom management.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
EED	478-W	Student Teaching in the Elementary School	Student teaching in elementary school classrooms; integration of all previous course work.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Co-requisites: Elementary Education student; EED 479 OR PDS (Professional Development School) student as appropriate
EED	479	Capstone Seminar in Elementary Education	Reflective, experienced-based integration of theory and practice; professional development for K-8 teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Education student; EED 478 OR PDS (Professional Development School) student as appropriate
EED	480	Mathematics Methods, Management, and Assessment in the Elementary School	Beginning course in the teaching, management, and assessment of mathematics in grades K–8.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Initial Teacher Certification Program Admission; BLE 408, EED 455, EDT 300 and RDG 432 completed with C or better or currently enrolled
EED	492	Honors Directed Study	Honors Directed Study	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisite: Must be an Honors student
EED	492	Honors Directed Study	Honors Directed Study	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisite: Must be an Honors student
EED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisite: Must be an Honors student
EED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	496	Field Experience	Applies course content in a K?8 school classroom. Emphasizes observation, pupil management, planning and delivery of instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Initial Teacher Certification Program Admission
EED	496-W	Field Experience III	Instruction and management of small groups and substantial work with the whole class. fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, BLE 414, EED 411, EED 412 OR Elem Ed, EED 411, EED 412, EED 414 and RDG 413 OR PDS (Professional Development School)
EED	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	
EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		

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EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EEE	101	Introduction to Engineering Design	Introduces engineering design, teaming, engineering profession; computer models and programming; communication skills; design of electrical and computer-based systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	2.		
EEE	120	Digital Design Fundamentals	Number systems, conversion methods, binary and complement arithmetic, Boolean algebra, circuit minimization, ROMs, PLAs, flipflops, synchronous sequential circuits. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-3		
EEE	202	Circuits I	Principles for analyzing linear and nonlinear circuits. Uses SPICE and MATLAB. Design and measurement of linear analog electrical systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: EE student with Intro to ES; Pre/Co-requisite: PHY 131 and MAT 274 or 275 (with C or better if completed) OR Non-EE student with any Intro to Engr. Pre/Co-requisite: PHY 131 and MAT 274 or 275
EEE	203	Signals and Systems I	Introduces continuous and discrete time signal and system analysis, linear systems, Fourier, and z-transforms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: A grade of D or better in EEE 202 (or currently enrolled) or EEE 302 AND a grade of C or better in MAT 242, 342 or 343 or be co-enrolled in MAT 242, 342 or 343.
EEE	230	Computer Organization and Assembly Language Programming	Register-level computer organization. Instruction set architecture. Assembly language. Processor organization and design. Memory organization. IO programming, Exception/interrupt handling. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: A grade of D or better in CSE 100 or CSE 110 or CSE 200 AND a grade of D or better in CSE 120 or EEE 120.
EEE	241	Fundamentals of Electromagnetics	Vector analysis, differential operators, fourier analysis, scalar, vector fields, electro/magneto statics, time-varying fields, boundary value problems, dielectric, magnetic materials, Maxwell's equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: MAT 362 and PHY 131 with C or better or currently enrolled; ECE 201 with D or better OR MAT 267 or 272 and MAT 274 or 275 and PHY 131 with C or better or currently enrolled; EEE 202 with D or better or currently enrolled
EEE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		
EEE	304	Signals and Systems II	Communication, signal processing, control systems, continuous, discrete transforms, sampling theorem, analog, digital modulation, filter design, signal processing applications, state space. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 or EEE 303 completed with a grade of D or better or be currently enrolled in EEE 203
EEE	333	Hardware Design Languages and Programmable Logic	Develops digital logic with modern practices of hardware description languages. Emphasizes usage, synthesis of digital systems for programmable logic, VLSI. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students AND grade of D or better in CSE101,ECE100,200,EEE101 AND grade of D or better in CSE120 or EEE120 or be currently enrolled.
EEE	334	Circuits II	Design of analog and digital circuits. Diodes/BJTs/Mosfets. Digital and analog circuit building blocks. Fundamentals of mixed signal circuits. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE student and a grade of D or better in ECE201 or EEE202
EEE	335	Analog and Digital Circuits	Analog, digital microelectronic circuits and systems. Gate sizing, timing analysis, sequential digital circuits. Amplifiers, multi-stage op-amps, A/D, D/A converters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; Must have completed EEE 334 or ECE 334 with a grade of D or better or be currently enrolled in EEE 334
EEE	341	Engineering Electromagnetics	Time-varying electromagnetic fields, waves in homogeneous and stratified media, transmission lines, waveguides and cavity resonators, radiation and antennas. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS or BSE student; EEE 203 or EEE 303 completed with a D or better or currently enrolled in EEE 203; EEE 241 completed with D or better (or MAT 362 completed with a grade of C or better) or currently enrolled in EEE 241
EEE	350	Random Signal Analysis	Probabilistic and statistical analysis as applied to electrical signals and systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 203, EEE 303 or MAE 317 completed with a D or greater or currently enrolled in EEE 203 or MAE 317 or co-enrolling in EEE 203 OR Graduate Engineering students
EEE	352	Properties of Electronic Materials	Schrodinger's wave equation, potential barrier problems, bonds of crystals, the band theory of solids, semiconductors, superconductor dielectric, and magnetic properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS or BSE students; MAT 362 with C or better or EEE 241 with a D or better or currently enrolled; PHY 241 or 361 with a C or greater or currently enrolled; CHM 114, 115, 116 or 118 with a D or greater or currently enrolled
EEE	360	Energy Systems and Power Electronics	Conventional and alternate energy sources for power systems, three-phase analysis, AC generators, transformers, induction, DC motors, power electronic speed control. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE student; EEE 202 or ECE 201 completed with a D or better or currently enrolled in EEE 202; EEE 241 completed with a D or better or currently enrolled OR Graduate Engineering student
EEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		
EEE	404	Real-Time DSP Systems	Digital signal processors, translating signals and systems concepts into real-time multimedia and communications applications, real-time algorithms. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 (or EEE 303) with D or better; EEE 230 (or CSE 230, EEE 225 or EEE 226) with D or better
EEE	407	Digital Signal Processing	Time and frequency domain analysis, difference equations, z-transform, FIR and IIR digital filter design, discrete Fourier transform, FFT, and random sequences. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 or EEE 303 completed with a D or greater or currently enrolled in EEE 203; MAT 342 or 343 completed with a C or greater or currently enrolled

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EEE	425	Digital Systems and Circuits	Digital logic gate analysis and design. Propagation delay times, fan out, power dissipation, noise margins. Design of MOS and bipolar logic families, including NMOS, CMOS, standard and advanced TTL, ECL, and BiCMOS. Inverter, combinational and sequential logic circuit design, MOS memories, VLSI circuits. Computer simulations using PSPICE. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 335 completed with a D or better or currently enrolled
EEE	433	Analog Integrated Circuits	Analysis, design, and applications of modern analog circuits using integrated bipolar and field-effect transistor technologies. Fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 335 completed with a D or greater or currently enrolled
EEE	434	Quantum Mechanics for Engineers	Angular momentum, wave packets, Schroedinger wave equation, probability, problems in one dimension, principles of wave mechanics, scattering, tunneling, central forces, angular momentum, hydrogen atom, perturbation theory, variational techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 241 or EEE 340 completed with a grade of D or better or currently enrolled in EEE 241; EEE 352 or ECE 352 completed with a grade of D or better or currently enrolled in EEE 352
EEE	435	Fundamentals of CMOS and MEMS	Introduces basic CMOS processing and fabrication tools. Covers the fundamentals of thermal oxidation, CVD, implantation, diffusion, and process integration. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Must be an Engineering BS/BSE student AND earn a grade of D or better in EEE 436 or be co-enrolled in EEE 436.
EEE	436	Fundamentals of Solid-State Devices	Semiconductor fundamentals, pn junctions, metal-semiconductor contacts, metal-oxide-semiconductor capacitors and field-effect transistors, bipolar junction transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in EEE 352 or ECE 352.
EEE	437	Optoelectronics	Basic operating principles of various types of optoelectronic devices that play important roles in commercial and communication electronics; light-emitting diodes, injection lasers, and photodetectors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 436 with D or better
EEE	439	Semiconductor Facilities and Cleanroom Practices	Microcontamination, controlled environments, cleanroom layout and systems, modeling, codes and legislation, ultrapure water, production materials, personnel and operations, hazard management, advanced concepts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in EEE 435.
EEE	443	Antennas for Wireless Communications	Fundamental parameters; radiation integrals; wireless systems; wire, loop, and microstrip antennas; antenna arrays; smart antennas; ground effects; multipath.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 341 with D or better
EEE	445	Microwaves	Waveguides; circuit theory for waveguiding systems; microwave devices, systems, and energy sources; striplines and microstrips; impedance matching transformers; measurements. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 340 or EEE 341 completed with a D or better or currently enrolled in EEE 341
EEE	448	Fiber Optics	Principles of fiber-optic communications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 340 or EEE 341 completed with a D or better or currently enrolled in EEE 341
EEE	455	Communication Systems	Signal analysis techniques applied to the operation of electrical communication systems. Introduction to and overview of modern digital and analog communications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE; EEE 350 completed with a D or better or currently enrolled; EEE 203 or EEE 303 completed with a D or better or currently enrolled in EEE 203
EEE	459	Communication Networks	Fundamentals of communication networks. Study of Seven-Layer OSI model. Focus on functionality and performance of protocols used in communication networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE and a grade of D or better in EEE 202 or 203.
EEE	460	Nuclear Power Engineering	Radioactivity and decay. Radiation interactions and dose. Nuclear reaction, fission and fusion theory. Fission reactors, four factor formula, moderation. Nuclear power, TMI, Chernobyl. Nuclear fuel cycle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in PHY241, 294 or 361 OR a grade of D or better in CHM114, 115 or 116 and a grade of C or better in MAT 274 or 275 and a grade of C or better in PHY241 or 361.
EEE	463	Electrical Power Plants	Generation of electric power using fossil, nuclear, and renewable, including solar, geothermal, wind, hydroelectric, biomass and ocean, energy sources. Power plant thermal cycle analysis. Cogeneration and combined cycles. Economics, operations, and design of electric power stations. Energy storage.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; CHM 114 or CHM 116 with D or better or currently enrolled; MAT 274 or MAT 275 with C or better or currently enrolled; MAE 240 (or ECE 340) with D or better or PHY 241 with C or better or currently enrolled
EEE	470	Electric Power Devices	Analyzes devices used for short circuit protection, including circuit breakers, relays, and current and voltage transducers. Protection against switching and lightning over voltages. Insulation coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	471	Power System Analysis	Review of transmission line parameter calculation. Zero sequence impedance, symmetrical components for fault analysis, short circuit calculation, review of power flow analysis, power system stability, and power system control concepts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	473	Electrical Machinery	Operating principles, modeling and speed control of DC, brushless DC, and AC machines; power converters for DC and AC motors drives.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	480	Feedback Systems	Analysis and design of linear feedback systems. Frequency response and root locus techniques, series compensation, and state variable feedback. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in EEE203 or MAE318 or be currently enrolled.
EEE	481	Computer-Controlled Systems	Implements computer-based, embedded, control systems using MATLAB xPC Target toolbox. Small-scale, representative projects demonstrate theoretical issues and provide hands-on expertise.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 203 and EEE 230 (or CSE 230) with D or better or only MAE 318 with D or better
EEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		

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EEE	488	Senior Design Laboratory I	Design process: research, concept, feasibility, simulation, specifications, benchmarking, and proposal generation. Technical communications and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.	L	Pre-requisites: Engineering BS/BSE student; ENG 102 (or 105 or 108), EEE 241, EEE 350, EEE 334, and 4 courses from EEE 304, 333, 335, 341, 352 or 360, all with D or better
EEE	489	Senior Design Laboratory II	Implement, evaluate, and document EEE 488 design. Social, economic, and safety considerations. Technical communications and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.	L	Pre-requisites: Engineering BS/BSE students; EEE 488 with D or better or be currently enrolled. Seniors or PostBacc undergraduates only.
EEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-6		Pre-requisites: Must be an Honors student in BSE Electrical Engineering; senior academic level
EEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	0-6	L	Pre-requisites: Must be an Honors student in BSE Electrical Engineering; senior academic level
EEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		Pre-requisites: Engineering BS/BSE student and a grade of D or better in EEE 433.
EEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-7		Pre-requisites: Engineering BS/BSE students only.
EEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-3		Pre-requisites: Senior Electrical Engineering BSE students only.
EEE	505	Time-Frequency Signal Processing	Joint time-frequency analysis of time-varying signals and systems; linear and quadratic time-frequency representations; applications in current areas of signal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students only.
EEE	506	Digital Spectral Analysis	Principles and applications of digital spectral analysis, least squares, random sequences, parametric, and nonparametric methods for spectral estimation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	507	Multidimensional Signal Processing	Processing and representation of multidimensional signals. Design of systems for processing multidimensional data. Introduces image and array processing issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	508	Digital Image and Video Processing and Compression	Fundamentals of digital image perception, representation, processing, and compression. Emphasizes image coding techniques. Signals include still pictures and motion video.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	509	DSP Algorithms and Software	Linear systems review, digital filter design, software aspects, DFT, FFT, random signals, programming aspects, applications projects, MATLAB and Java simulations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	510	Multimedia Signal Processing	Speech/audio coding algorithms. LPC, CELP, MPEG, Cell phone, DTV, cinema, and surround sound standards. MPEG/JPEG introduction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	511	Artificial Neural Computation Systems	Networks for computation, learning function representations from data, learning algorithms and analysis, function approximation and information representation by networks, applications in control systems and signal analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in CHE 518, MSE 518, or MSE 475 you may not enroll in EEE 518
EEE	523	Advanced Analog Integrated Circuits	Analysis and design of analog integrated circuits: analog circuit blocks, reference circuits, operational-amplifier circuits, feedback, and nonlinear circuits.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	524	Communication Transceiver Circuits Design	Communication transceivers and radio frequency system design; fundamentals of transceivers circuits; RF, IF, mixers, filters, frequency synthesizers, receivers, CAD tools, and lab work on IC design stations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	525	VLSI Design	Analysis and design of Very Large Scale Integrated (VLSI) circuits. Physics of small devices, fabrication, regular structures, and system timing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	526	VLSI Architectures	High throughput and low-power VLSI architectures for signal processing. Array processor systems; data path design and optimization; memory design; high-level synthesis; low-power design at system level, algorithm level, and architecture level.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	527	Analog to Digital Converters	Detailed introduction to the design of Nyquist rate, CMOS analog to digital converters.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG/MS/MSE/PHD/MCS students OR Science & Engr Of Materials students AND a grade of C or better in EEE 523.
EEE	530	Advanced Silicon Processing	Thin films, CVD, oxidation, diffusion, ion-implantation for VLSI, metallization, silicides, advanced lithography, dry etching, rapid thermal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	531	Semiconductor Device Theory I	Transport and recombination theory, pn and Schottky barrier diodes, bipolar and junction field-effect transistors, and MOS capacitors and transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	532	Semiconductor Device Theory II	Advanced MOSFETs, charge-coupled devices, solar cells, photodetectors, light-emitting diodes, microwave devices, and modulation-doped structures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students and a grade of C or better in EEE 531 or be currently enrolled OR Science & Engr Of Materials PhD students.
EEE	533	Semiconductor Process/Device Simulation	Process simulation concepts, oxidation, ion implantation, diffusion, device simulation concepts, pn junctions, MOS devices, bipolar transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	534	Semiconductor Transport	Carrier transport in semiconductors. Hall effect, high electric field, Boltzmann equation, correlation functions, and carrier-carrier interactions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	535	Electron Transport in Nanostructures	Nanostructure physics and applications. 2-D electron systems, quantum wires and dots, ballistic transport, quantum interference, and single-electron tunneling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	536	Semiconductor Characterization	Measurement techniques for semiconductor materials and devices. Electrical, optical, physical, and chemical characterization methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	537	Semiconductor Optoelectronics	Electronic states in semiconductors, quantum theory of radiation, absorption processes, radiative processes, nonradiative processes, photoluminescence, and photonic devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	538	Introduction to Microelectromechanical Systems	Microelectromechanical systems and devices emphasizing analytical and numerical modeling of actuation and sensing mechanisms with an overview of fabrication technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	539	Intro Solid-State Electronics	Crystal lattices, reciprocal lattices, quantum statistics, lattice dynamics, equilibrium, and nonequilibrium processes in semiconductors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	540	Fast Computational Electromagnetics	Method of moments, finite difference time-domain, finite element methods implemented using fast algorithms (wavelets, FMM, Nystrom) to gain high efficiency.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	541	Electromagnetic Fields and Guided Waves	Polarization and magnetization; dielectric, conducting, anisotropic, and semiconducting media; duality, uniqueness, and image theory; plane wave functions, waveguides, resonators, and surface guided waves.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	543	Antenna Analysis and Design	Impedances, broadband antennas, frequency independent antennas, miniaturization, aperture antennas, horns, reflectors, lens antennas, and continuous sources design techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	544	High-Resolution Radar	Fundamentals; wideband coherent design, waveforms, and processing; stepped frequency; synthetic aperture radar (SAR); inverse synthetic aperture radar (ISAR); imaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	545	Microwave Circuit Design	Analysis and design of microwave attenuators, in-phase and quadrature-phase power dividers, magic tees, directional couplers, phase shifters, DC blocks, and equalizers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	546	Advanced Fiber Optics	Theory of propagation in fibers, couplers and connectors, distribution networks, modulation, noise and detection, system design, and fiber sensors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	547	Microwave Solid-State Circuit Design I	Applies semiconductor characteristics to practical design of microwave mixers, detectors, limiters, switches, attenuators, multipliers, phase shifters, and amplifiers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	548	Coherent Optics	Diffraction, lenses, optical processing, holography, electro-optics, and lasers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	549	Lasers	Theory and design of gas, solid, and semiconductor lasers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	550	Transform Theory and Applications	Introduces abstract integration, function spaces, and complex analysis in the context of integral transform theory. Applications to signal analysis, communication theory, and system theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	551	Information Theory	Entropy and mutual information, source and channel coding theorems, applications for communication and signal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	552	Digital Communications	Complex signal theory, digital modulation, optimal coherent and incoherent receivers, channel codes, coded modulation, Viterbi algorithm.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	553	Coding and Cryptography	Introduces algebra, block and convolutional codes, decoding algorithms, turbo codes, coded modulation, private and public key cryptography.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	554	Random Signal Theory	Applies statistical techniques to the representation and analysis of electrical signals and to communications systems analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	555	Modeling and Performance Analysis	Modeling and performance analysis of stochastic systems and processes such as network traffic queueing systems and communication channels.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	556	Detection and Estimation Theory	Combines the classical techniques of statistical inference and the random process characterization of communication, radar, and other modern data processing systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	557	Broadband Networks	Physics of wireless and optical communications. Broadband multiplexing and switching methods. Blocking and queueing analysis. Network optimization, routing, and economics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	558	Wireless Communications	Cellular systems, path loss, multipath fading channels, modulation and signaling for wireless, diversity, equalization coding, spread spectrum, TDMA/FDMA/CDMA.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	562	Nuclear Reactor Theory and Design	Principles of neutron chain reacting systems. Neutron diffusion and moderation. One-, two-, and multigroup diffusion equation solution methods. Heterogeneous reactors. Nuclear fuel steady-state performance. Core thermal-hydraulics. Core thermal design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	563	Nuclear Reactor System Dynamics and Diagnostics	Time-dependent solution to neutron diffusion equation. Reactor kinetics and reactivity changes. Dynamics, stability, and control of reactor systems. Modeling neutronic and thermal processes. System characterization in time and frequency domains. Reactor surveillance and diagnostics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	564	Interdisciplinary Nuclear Power Operations	Nuclear power plant systems. Studies interrelationship and propagation of effects that systems and design changes have on one another, especially in relation to nuclear power plant safety and operations. Case studies and design projects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	571	Power System Transients	Simple switching transients. Transient analysis by deduction. Damping of transients. Capacitor and reactor switching. Transient recovery voltage. Travelling waves on transmission lines. Lightning. Protection of equipment against transient overvoltages. Introduces computer analysis of transients.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	572	Advanced Power Electronics	Analyzes device operation, including thyristors, gate-turn-off thyristors, and transistors. Design of rectifier and inverter circuits. Applications such as variable speed drives, HVDC, motor control, and uninterruptable power supplies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	573	Electric Power Quality	Sinusoidal waveshape maintenance; study of momentary events, power system harmonics, instrumentation, filters, power conditioners, and other power quality enhancement methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	574	Computer Solution of Power Systems	Algorithms for digital computation for the Newton and fast-decoupled power flow problem, and fault analysis. Sparse matrix and vector programming methods, creation of elimination trees, network equivalencing, solution of the least squares problem, introduction to state estimation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	575	Power System Stability	Dynamic performance of power systems with emphasis on stability. Modeling of system components and control equipment. Analysis of the dynamic behavior of the system in response to small and large disturbances. Knowledge of EEE470, 471 and 473 (or equivalents) is required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Graduate Engineering student
EEE	577	Power Engineering Operations and Planning	Economic dispatch, unit commitment, dynamic programming, power system planning and operation, control, generation modeling, AGC, and power production.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	579	Power Transmission and Distribution	High-voltage transmission line electric design; conductors, corona, RI and TV noise, insulators, clearances. DC characteristic, feeders voltage drop, and capacitors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	581	Filtering of Stochastic Processes	Modeling, estimation, and filtering of stochastic processes, with emphasis on the Kalman filter and its applications in signal processing and control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	582	Linear System Theory	Controllability, observability, and realization theory for multivariable continuous time systems. Stabilization and asymptotic state estimation. Disturbance decoupling, noninteracting control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	585	Digital Control Systems	Analysis and design of digital and sampled data control systems, including sampling theory, z-transforms, the state transition method, stability, design, and synthesis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	586	Nonlinear Control Systems	Stability theory, including phase-plane, describing function, Liapunov's method, and frequency domain criteria for continuous and discrete, nonlinear, and time-varying systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	587	Optimal Control	Optimal control of systems. Calculus of variations, dynamic programming, linear quadratic regulator, numerical methods, and Pontryagin's principle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	588	Design of Multivariable Control Systems	Practical tools for designing robust MIMO controllers. State feedback and estimation, model-based compensators, MIMO design methodologies, CAD, real-world applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Master of Engineering or Electrical Engineering MS/MSE/PHD students

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EEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Department of Electrical Engineering	1.		
EEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	606	Adaptive Signal Processing	Principles and applications of adaptive signal processing, adaptive linear combiner, Wiener least-squares solution, gradient search, performance surfaces, LMS/RLS algorithms, block time/frequency domain LMS.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	607	Speech Coding for Multimedia Communications	Speech and audio coding algorithms for applications in wireless communications and multimedia computing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	625	Advanced VLSI Design	Practical industrial techniques, circuits, and architectures appropriate to high-performance and low-power digital VLSI designs such as microprocessors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	627	Oversampling Sigma-Delta Data Converters	Introduces design and analysis of sigma delta oversampled data converters from an IC design perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	631	Heterojunctions and Superlattices	Principles of heterojunctions and quantum well structures, band lineups, optical, and electrical properties. Introduces heterojunction devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students and a grade of C or better in EEE 531 or currently enrolled OR Science & Engr Of Materials PhD students.
EEE	641	Advanced Electromagnetic Field Theory	Cylindrical wave functions, waveguides, and resonators; spherical wave functions and resonators; scattering from planar, cylindrical, and spherical surfaces; Green's functions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	643	Advanced Topics in Electromagnetic Radiation	High-frequency asymptotic techniques, geometrical and physical theories of diffraction (GTD and PTD), moment method (MM), radar cross section (RCS) prediction, Fourier transforms in radiation, and synthesis methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	647	Microwave Solid-State Circuit Design II	Practical design of microwave free-running and voltage-controlled oscillators using Gunn and Impatt diodes and transistors; analysis of noise characteristics of the oscillator.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	686	Adaptive Control	Main topics covered: adaptive identification, convergence, parametric models, performance and robustness properties of adaptive controllers, persistence of excitation, and stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, Electrical Engineering MS/MSE/PHD students
EEE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		

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EEE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	731	Advanced MOS Devices	Threshold voltage, subthreshold current, scaling, small geometry effects, hot electrons, and alternative structures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Electrical Engineering PhD students
EEE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-15		
EEE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Department of Electrical Engineering	1.		
EEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Department of Electrical Engineering	1-15		
EET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
EET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	301	Electric Circuit Analysis II	Analysis of continuous-time signals and linear systems of using Laplace and Fourier response of circuits.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; EET 208 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EET	304	Transmission Lines in Computer Networks	Theory and application of transmission lines in high-speed computer networks. Signal propagation and impedance matching.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		
EET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	396	Professional Orientation	Technical, professional, economic, and ethical aspects of electronics/computer engineering technology practice and industrial organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		
EET	401	Digital Signal Processing for Multimedia	Applies DSP techniques to multimedia. Digital filter analysis and design. Time and frequency techniques. Computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; MAT 262 or MAT 272 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EET	403	PLCs, Sensors and Actuators	Applications, programming, and troubleshooting using PLCs. Interfacing to motors, sensors, and actuators. Fluid power principles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EET	406	Control System Technology	Control system components, analysis of feedback control systems, stability, performance, and application.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3-4		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; EET 301 and MAT 262 (or MAT 272) with D or better. If you have credit in EET 506, you may not enroll in EET 406
EET	407	Energy Conversion and Applications	Electricity, magnetism, mechanics, heat and units, and three-phase circuits. Electrical machines, transformers, generation, transmission, and distribution of electrical energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Must be Tech Sci or Engr BS/BSE/NonDegree AND Univ Cum GPA is 2.25 or greater AND must have earned D or greater in EET 208 or currently enrolled OR must be Tech Sci or Engr NonDegree, Tech Sci BAS/MS/MSTECH or Master Computing Studies

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EET	410	Electronic Circuits II	Analysis and design of OP-amps, power amplifiers, and digital logic families. Feedback design using frequency response. Computer analysis and design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; EET 301 and EET 310 with D or better OR Technology and Innovation or Fulton Engineering graduate student or TS/ES non-degree student
EET	430	Instrumentation and Measurement Systems	Instrumentation and measurement techniques, sensors operating principles. Signal and error analysis. Signal conditioning and data acquisition.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 310 with D or better
EET	460	Power Electronics	Analyzes circuits for control and conversion of electrical power and energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; EET 301, EET 310 and EET 407 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	501	Digital Signal Processing Applications	Applies DSP techniques to the design and analysis of digital filters. Solution of filtering problems using computer techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EET	506	System Dynamics and Control	Time, frequency, and transform domain analysis of physical systems. Transfer function analysis of feedback control systems performance and stability. Compensation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	508	Digital Real-Time Control	Sample data control techniques and applications to process control.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	530	Electronic Test Systems and Applications	Analysis, design, and application of electronic test equipment, test systems, specifications, and documentation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 310 with D or better
EET	560	Industrial Electronics and Applications	Analysis, design, and application of special electronic devices and systems to industrial control, power, communications, and processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	578	Digital Filter Hardware Design	Hardware design of FIR and IIR filters, including adaptive filters, based on DSP chips. Develop new applications using DSP microprocessor systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	579	Digital Image Communication	Image capture, transform, compression, storage, and transmission. Provides computer environment (software and hardware) to emphasize the practical aspect.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EGR	101	Introduction to Engineering Design I	Introduces engineering as a profession, critical thinking in engineering design and modeling, team dynamics, engineering communication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
EGR	102	Introduction to Engineering Design II	Development and experimental verification of engineering models, engineering design, data acquisition, critical analysis of data, introduction to CADD, engineering communications.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: EGR 101 and MAT 170 with D or better; Pre or Co-requisite: ENG 101 (or ENG 105, 107 or 111) with D or better if completed
EGR	126	Engineering Applications of MATLAB	Using MATLAB to solve engineering problems; problem solving; computational and programming uses of MATLAB.	N	STO	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better
EGR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	201	Fall Multidisciplinary Project	Design, professionalism, and engineering practice developed in a multidisciplinary project setting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: APM 270 and EGR 102 with D or better
EGR	202	Spring Multidisciplinary Project	Design, problem solving, and engineering practice developed in a multidisciplinary project setting. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: APM 270 and EGR 102 with D or better
EGR	220	Computer Hardware for Engineers	Computer architecture, types of memory, operating systems and interrupts, buses and multiplexing, error detection and correction, Internet, the Web, encryption.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better or currently enrolled
EGR	221	Engineering Mechanics: Statics	Introduces the concepts of force, moment, and their relationships to the static equilibrium of a physical object.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and EGR 102 with D or better
EGR	222	Mechanics of Materials	Behavior of solid bodies subjected to loading. Stresses, strains, and displacements in bodies Analysis and design in solid mechanics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and EGR 102 with D or better
EGR	223	Engineering Thermodynamics	Heat; conservation of energy; first and second laws of thermodynamics; open and closed systems; entropy, enthalpy, and internal energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and CHM 113 with D or better
EGR	224	Engineering Materials Selection	Methods of selecting materials for specific applications based on mechanical loading, electrical, thermal, and environmental constraints.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102, APM 270 and PHY 121 with D or better
EGR	225	Instrumentation I	Introduces instrumentation systems and components, including transducers, associated electronics, and data acquisition and analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 and EGR 102 with D or better
EGR	226	Engineering Applications of LabView	Uses LabView to solve engineering problems; problem solving, data acquisition, and control using LabView.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better or currently enrolled

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EGR	227	Manufacturing Processes I	Overview of manufacturing processes, including operating principles, process selection, and production economics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102 with D or better
EGR	229	Engineering Ethics and Professionalism	Case studies in engineering ethics and professionalism.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 101 and ENG 101 with D or better
EGR	230	Fluid Mechanics	Fluid properties, fluid statics, fluid continuum systems, control volumes, boundary control surfaces, energy and momentum, hydraulics, pipes, open channels, turbomachines.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 221 with D or better
EGR	231	Engineering Mechanics: Dynamics	Rectilinear and planar motions of a particle and their relationships to the forces on it.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 with D or better
EGR	234	Structure and Properties of Engineering Materials	Relationships among material structure, processing, and properties. Mechanical, electrical, and magnetic properties. Corrosion.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: CHM 113 and MAT 170 with D or better
EGR	235	Instrumentation II	Frequency domain analysis of instrumentation systems and components, including transducers, associated electronics, and data acquisition and analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 225 and APM 270 with D or better
EGR	238	Feedback Control	Introduces modeling, analysis, and design of feedback control systems, including block diagrams, transient responses, and linear controllers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 with D or better
EGR	239	Engineering Economics	Economic dimensions in the evaluation of engineering alternatives. Income and cash flow. Time value of money. Cost/benefit analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102 and MAT 170 with D or better
EGR	280	Engineering Statistics	Applications-oriented introduction to statistics with computer-based experience using statistical software for formulating and solving engineering problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	CS	Pre-requisites: APM 270 with D or better
EGR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	301	Fall Concentration Project	Design, communication, and critical thinking developed in a project setting based on selected concentration. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: ENG 102, EGR 201 and EGR 202 with D or better; MAT 267, MAT 272 or MAT 294/APM 294 - Mathematics of Change III with C or better
EGR	302	Spring Concentration Project	Design, engineering practice, and communication developed in a project setting based on selected concentration. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 201 and EGR 202 with D or better or currently enrolled; Co-requisites: EGR 332 or EGR 342
EGR	331	Electrical Implementation Technology	Conducting electrical projects using the facilities of the ASU Polytechnic campus. Juniors majoring in engineering or technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 or EET 301 with D or better
EGR	332	Electrical Power and Heat	Generation and distribution of electrical power within localized systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	333	Distributed Circuits and Systems	Analysis and modeling of the generation and distribution of electrical signals and energy across distributed systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	335	Instrumentation III	Noise in electrical systems and associated limits on instrumentation and measurement.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better
EGR	336	Introduction to Mechatronics	Pneumatic, hydraulic, mechanical, and electrical actuators. Models of mechatronic systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 231, EGR 235 and EGR 238 with D or better
EGR	337	Remote Sensing and Imaging Principles	Remote sensing and imaging principles with a focus on land development applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: CHM 113, EGR 280, and MAT 272 with a grade of D or better, or currently enrolled
EGR	339	Fabrication of Electrical Systems	Overview of electrical fabrication techniques; design cycle time, cost, quality, reliability, product life cycle, and testing; programmable versus hard-wired implementation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	340	Engineering Thermo-Fluids I	First and second laws of thermodynamics, systems, processes, equations of state, property tables. Fluid statics, conservation of momentum, Bernoulli's equation, applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: PHY 111 or PHY 121 with D or better; APM 266, APM 271, MAT 266 or MAT 271 with D or better
EGR	341	Testing and Failure Prevention	Testing behavior of engineering materials under various loads. Evaluation of causes, mechanisms, and prevention of failure in structures and components.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 221, EGR 222 and EGR 231 with D or better
EGR	342	Computer-Aided Engineering	Theory and use of computer tools for high-level engineering analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: APM 271, CHM 113, EGR 221, EGR 222 and EGR 231 with D or better
EGR	343	Mechanics of Solid Materials	Studies strength and physical performance, such as deformations and load-carrying capacity, of natural and artificial solid structures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 221 and EGR 222 with D or better
EGR	346	Engineering Design	Applies fundamentals of mechanics in analysis and synthesis of machine components and systems, with emphasis on stress and failure.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
EGR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	401	Engineering Capstone Project I	First half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier course work. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: EGR 301 and EGR 302 with D or better or currently enrolled
EGR	402	Engineering Capstone Project II	Second half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier course work. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisite: EGR 401 with D or better taken within one previous term or currently enrolled
EGR	432	Engineering Thermo-Fluids II	Thermodynamic analysis of mixtures and power cycles. Design and analysis of fluid systems, conduction heat transfer, and introduction to convection and radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Students who have credit in MET 432, may not enroll in EGR 432
EGR	433	Transforms and Systems Modeling	State-space and transform-domain modeling and analysis of electrical and electromechanical systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better, MAT 274 or MAT 275 with D or better; MAT 342 or MAT 343 with D or better
EGR	434	Digital Signal Processing: Media Standards	Introduces signal compression and reconstruction; audio, image, and video media standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	435	Digital Signal Processing: Filtering	Introduces digital filtering, FIR and IIR filters, filter design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better

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EGR	436	Wireless Communication Principles	Introduces wireless digital communications systems; overview of important concepts, including coding, modulation, equalization, decoding, and multiple access protocols.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	437	Wireless Communication Protocols	Surveys commercially important digital wireless protocols.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	438	Electromagnetic Compatibility and Interference	Electromagnetic compatibility and interference. Grounding and shielding techniques. Cables, connectors, and leads. Regulations and standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better; PHY 331 with D or better
EGR	445	Mechanical Engineering Systems	Design and modeling of multicomponent electromechanical systems. Applications of computers, controllers, electronics using system hardware and software development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 301 or EGR 302 with D or better; EGR 238 with D or better
EGR	492	Honors Directed Study		N	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-6		
EGR	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering	1-6	L	Pre-requisites: Must be an Honors student
EGR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1.		
ELL	501	Multicultural Education	Examines the multicultural debate as a profound ideological struggle over the values of American culture.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	505	Language Minority Education	Historical, philosophical, theoretical, pedagogical, and legal foundations of language minority education in the United States. Credit is allowed for only ELL 505 or 405.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	510	Linguistics: First- and Second-Language Acquisition and Use	Examines current theories of first- and second-language acquisition and use and their application to ELL pedagogical contexts. Credit is allowed for only ELL 510 or 410.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	515	Structured English Immersion (SEI) Methods	Addresses the role of language and culture in teaching, program types, and specific SEI strategies for teaching English Language Learners (ELLs). Credit is allowed for only ELL 515 or 415.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	516	Advanced SEI Methods for Ells	More fully prepares teachers for linguistically diverse classrooms in which there are students learning through SEI methodology. Credit is allowed for only ELL 516 or 416.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	517	SEI Methods for Middle/High Schools	Introduces middle and high school teachers to Structured English Immersion methods for English Language Learners. Focuses on integration with academic content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 517 or 417.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	518	Advanced SEI Methods for Middle/High Schools	Provides middle/high school teachers with advanced training in using Structured English Immersion methods for English Language Learners in content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 518 or 418.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	520	Literacy Methods for English Language Learners (ELLs)	Teaching reading and writing to English Language Learners (ELLs) with emphasis on integrated curriculum and literature-based instruction. Credit is allowed for only ELL 520 or 420.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	525	Assessment and Evaluation for English Language Learners (ELLs)	Discusses assessment methods for English Language Learners (ELLs) in the K-12 classroom through psychometric and sociocultural models of assessment. Credit is allowed for only ELL 525 or 425.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	526	Advanced SEI Methods for Administrators	Provides current and future school administrators the foundations and skills necessary to plan, implement, and evaluate programs designed for English Language Learners in pre-K through 12th grade school settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	530	Community and Parental Involvement in Language Minority Education	Analyzes home-school collaboration using historical, educational, psychological, ethnic-social diversity, and sociological perspectives.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Students who have credit for ELL 430, may not enroll in ELL 530
ELL	535	Computer-assisted Language Learning (CALL) for English Language Learners (ELLs)	Examines current theories and practices surrounding the feasibility and efficacy of employing computer technology in ELL instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ELL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
ELL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
ELL	405	Language Minority Education	Historical, philosophical, theoretical, pedagogical, and legal foundations of language minority education in the United States. Credit is allowed for only ELL 405 or 505.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	410	Linguistics: First - and Second-Language Acquisition and Use	Examines current theories of first- and second-language acquisition and use and their application to ELL pedagogical contexts. Credit is allowed for only ELL 410 or 510.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	415	Structured English Immersion (SEI) Methods	Prepares preservice teachers for linguistically diverse classrooms in which there are English Language Learners (ELLs) learning through Structured English Immersion (SEI) methodology. Focuses primarily on SEI strategies. Credit is allowed for only ELL 415 or 515.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	416	Advanced SEI Methods for ELLs	More fully prepares teachers for linguistically diverse classrooms in which there are students learning through SEI methodology. Credit is allowed for only ELL 416 or 516.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	417	SEI Methods for Middle/High Schools	Introduces middle and high school teachers to Structured English Immersion methods for English Language Learners. Focuses on SEI strategies in content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 417 or 517.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	418	Advanced SEI Methods for Middle/High Schools	Provides future middle/high school teachers with advanced preparation in using Structured English Immersion methods for English Language Learners in content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 418 or 518.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	420	Literacy Methods for English Language Learners (ELLs)	Teaching reading and writing to English Language Learners (ELLs) with emphasis on integrated curriculum and literature-based instruction. Credit is allowed for only ELL 420 or 520.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	425	Assessment and Evaluation for English Language Learners (ELLs)	Discusses assessment methods for English Language Learners (ELLs) in the K-12 classroom through psychometric and sociocultural models of assessment. Credit is allowed for only ELL 425 or 525.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	430	Community and Parental Involvement in Language Minority Education	Introduces home-school collaboration using historical, educational, psychological, ethnic-social diversity, and sociological perspectives.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Students who have credit for ELL 530, may not enroll in ELL 430
ELL	445	Practicum with English Language Learners (ELLs)	Pairs students seeking a full ESL endorsement with full ESL-endorsed classroom teachers. Addresses areas including second language acquisition and development, assessment, and pedagogy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ELL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ELS	501	Environmental Life Sciences: Grand Challenge: Global Climate Change	Introduces first-year graduate students to a range of fields related to the Environmental Life Sciences graduate program. Co-instructed by an interdisciplinary faculty team, combines overview lectures and active discussion of current literature in the fields of inquiry. Culminates in synthetic collaborative research proposals on topics that foster transdisciplinary approaches to environmental life science questions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ELS	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ELS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ELS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ELS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ELS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
ELS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
EN	106	Lit Apprec		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of English	3.		
EN	584	Internship		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of English	3.		
ENE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-4		
ENE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) OR have completed WAC 107 with A, B, C or Y

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ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	111	Learning Community Composition I	Discovering, researching, and developing ideas in relation to the writer's purpose, subject, and audience. Only taught within a Liberal Arts (CLAS) Learning Community.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	112	Learning Community Composition II	Critical reading and writing; emphasis on rhetorical strategies of argumentation. Requires research paper. Only taught within a CLAS Learning Community.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 101 or ENG 111 with C or better
ENG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	197	Medical Writing	For students in the MedStart summer program. Designed to further critical thinking, reading, and writing skills for students interested in a medical career.	N	LEL	N	GNA	Liberal Arts and Sciences	Department of English	3.		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Literature, Writing and Film (BA, minor, certificate, and BIS), Pre Sec Educ- English, Sec Ed-English, English (Linguistics or Literature or Creative Writing) students; ENG 102, ENG 105 or ENG 108 with a C or better
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H & G	
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction. May be repeated when genres vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	214	English Grammar and Usage	Fundamentals of English grammar (word and phrase structure), English usage (punctuation, grammatical correctness), and grammatical and usage theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	215	Strategies of Academic Writing	Advanced course in techniques of analyzing and writing academic expository prose. Writing is research based.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	217	Writing Reflective Essays	Critical examination of the influences discourse has on formation of identity; narrative analyses of self and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	218	Writing About Literature	Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	245	Popular Culture Issues	Selected topics in various forms of popular culture related to written texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 101 & ENG 102 or ENG 105 or ENG 107 & ENG 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 101 and 102 (or 105) or both ENG 107 and 108 with C or better
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	1-6		
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	302	Business Writing	Advanced interdisciplinary writing course designed to improve the workplace writing competence of W. P. Carey School of Business professional and preprofessional students. Lecture, discussion, case studies, cooperative learning, interactive, Internet, student presentations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled
ENG	303	Classical Backgrounds of English Literature	Readings of Greek and Latin literature in translation as they relate to literature in English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	

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ENG	307	Writing Science Fiction	Writing science fiction, primarily the short story.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	310	Intermediate Creative Writing	Intermediate creative writing in genres other than poetry, fiction, or science fiction. May be repeated for credit when genres vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 210 with a grade of D or greater or be currently enrolled
ENG	312	English in its Social Setting	Introduces the sociolinguistic study of the English language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU or SB	
ENG	313	Phonology and Morphology	Introduces English morphology, phonology, etymology, and phonetic aspects of rhyme, alliteration, and other sound-based literary devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	314	Modern Grammar	Modern descriptive models of English grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	315	Medieval Literature in Translation	Medieval literature (insular and continental) in translation, from Beowulf to Malory (excluding Chaucer), emphasizing cultural and intellectual backgrounds.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	321	Introduction to Shakespeare	Shakespeare's major comedies, histories, and tragedies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	325	Restoration and the 18th Century	Writers and movements in nondramatic literature of the restoration and early 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	326	English Drama 1660-1800	English drama 1660-1800.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	328	The Novel to Jane Austen	From origins of prose fiction through the 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	
ENG	329	19th-Century British Fiction	Includes such authors as Austen, Dickens, Eliot, and Conrad.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	330	19th-Century British Poetry	Romantic and Victorian poets studied in context.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	331	American Drama	Major works in the development of American drama from its beginnings to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	
ENG	335	American Poetry	Themes and developments in American poetry.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	337	Major American Novelss	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	342	20th-Century British and Irish Literature	Major works in the development of literature since 1900, studied in their historical and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	345	Selected Authors or Issues	Different topics may be offered. Film topics with lab may carry 4 credits. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3-4		
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102 or 105 completed with a grade of C or better or be currently enrolled
ENG	353	African American Literature: Beginnings through the Harlem Renaissance	Historical survey of African American literary traditions and cultural contexts from slavery through the 1930s.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	
ENG	354	African American Literature: Harlem Renaissance to the Present	Historical survey of African American literary traditions and cultural contexts from the 1920s to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
ENG	355	European Dramatic Traditions	Development of European drama since Aeschylus.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	356	The Bible as Literature	Readings in the Jewish and Christian Scriptures in modern translation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	359	American Indian Literatures	Selected oral traditions and contemporary works by American Indian authors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisite: completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108. May not enroll in ENG 363 if you have credit in TCL 363
ENG	364	Women and Literature	Approaches to issues of gender and representation in literature by and about women.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	365	History of Film	Development of motion pictures.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3-4	HU	
ENG	369	Science Fiction Studies	Development of science fiction and fantasy literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	372	Document Production	Introduces document design and production. Practice in critique and in writing the content of publications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	374	Technical Editing	Fundamentals of editing technical and professional materials. Role of editors in analyzing, revising, and polishing manuscripts. Successful writer-editor dialogues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	385	Career Development for English Majors	Theoretical and practical aspects of career planning related to skills and interests developed in English studies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	387	Intermediate Creative Writing Workshop in Poetry	Intermediate writing of poetry. Requires term paper or equivalent out-of-class written work.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 210 or ENG 288 with C or better
ENG	388	Intermediate Creative Writing Workshop in Fiction	Intermediate writing of fiction. Requires term paper or equivalent out-of-class written work.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 288 with C or better
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	400	History of Literary Criticism	Major critics and critical traditions in the Western world.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & H	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	470	Symbols and Archetypes in Children's Literature	Various critical approaches and recurring themes studied in relation to classical and contemporary children's literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	471	Literature for Young Adults	Prose and poetry that meet the interests and capabilities of junior high and high school students. Stresses recent literature. A passing grade of at least "C" (2.00) required before students are permitted to student teach in English.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	472	Rhetorical Studies	Developments in theory and practice of major rhetorical inquiries.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105, or 108 with a grade of C or greater or be currently enrolled
ENG	476	Studies in Folklore	Surveys the history, genres, and dynamics of folklore, with emphasis on oral traditions.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	478	Studies in Modernism	Cultural, historical, and literary problems in American and European modernism.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	479	Studies in Postmodernism	Literary, social, and cultural issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	480	Methods of Teaching English: Composition	Methods of instruction, organization, and presentation of appropriate content in the teaching of composition and other writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	482	Methods of Teaching English: Language	Developing the language skills of native and non-native speakers through a process approach and advanced writing workshops in junior and senior high schools.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	487	Advanced Creative Writing Workshop in Poetry	Advanced writing of poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 310 or ENG 387 with a C or better
ENG	488	Advanced Creative Writing Workshop in Fiction	Advanced writing of fiction.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 388 with a grade of C or better
ENG	490	Literary Forms: Theory and Practice in Poetry	Types, history, analysis of traditional forms, and contemporary adaptations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 411 or ENG 487, with a C or better
ENG	491	Literary Forms: Theory and Practice in Fiction	Types, history, analysis of traditional forms, and contemporary adaptations.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 488 with a grade of C or better
ENG	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	Department of English	1-6		Pre-requisites: Must be an Honors student
ENG	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	Department of English	1-6	L	Pre-requisites: Must be an Honors student
ENG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	495	Literary Forms: Theory and Practice	Types, history, analysis of traditional forms and contemporary adaptations. Separate sections for poetry, fiction. Each genre may be taken once.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 411 with C better
ENG	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-6		Pre-requisites: Must be an Honors student
ENG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-7		
ENG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-3		
ENG	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	502	Contemporary Critical Theories	Studies the principles and techniques of contemporary theory and criticism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	503	Comparative Literature, Theory, and Practice	Problems, methods, and principles of comparative analysis, illustrated by selected critical essays and literary/cultural texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	504	Cross-Cultural Studies	Theoretical and analytical issues for comparative research across distinct cultural regions and traditions. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	505	Writing Workshops	Intense poetry and fiction workshops for experienced writers, emphasizing individual style. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	506	Methods and Issues in Teaching Language	Developing the language skills of native and non-native speakers through a process approach and advanced writing workshops in junior and senior high schools.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	507	Methods and Issues in Teaching Composition	Up-to-date theory, practice, and implementation of secondary writing instruction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	517	History of the English Language	Surveys the development of the English language, with an emphasis on major linguistic transformations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	530	Old English	Study of Old English grammar, syntax, and phonology, with selected readings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	531	Old English Literature	Intensive literary, linguistic, and cultural study of Old English literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	532	Middle English Dialects	Study of the principal dialects of Middle English, with selected readings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	533	Studies in Medieval Literature	Selected topics in English literature from the 11th through the 15th centuries. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		

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ENG	534	Studies in Renaissance Literature	Selected topics and literary works studied in the contexts of English Renaissance culture. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	535	Studies in 18th- and 19th-Century British Literature	Selected topics, issues, figures, and genres in British literature and culture of the 18th and 19th centuries. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	536	Studies in American Literature before 1900	Selected topics, issues, figures, and genres in 17th-, 18th-, and 19th-century American literature, including the literature of conquest and contact. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	537	Studies in Modern and Contemporary British Literature	Selected topics, issues, figures, and genres in British literature and culture after 1900. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	538	Studies in Modern and Contemporary American Literature	Selected topics, issues, figures, and genres in American literature and culture after 1900. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	539	Studies in Modernist and Postmodernist Literature and Theory	Selected topics in Modernist and Postmodernist studies. May include literary and theoretical texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	540	Teaching Young Adult Literature	Issues and new approaches in teaching contemporary literature in high school.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	542	Studies in North American Ethnic Literatures	Selected works studied in their cultural contexts from authors representing ethnic experiences in the United States. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	543	Studies in Anglophone Literatures	Selected topics, texts, periods, literary trends in works by world authors writing in English. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	544	Studies in Colonial and Postcolonial Literature	Selected topics, periods, theories, and figures in works by authors representing colonial and postcolonial regions and/or experiences. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	545	Studies in Women's Literatures	Selected topics, texts, periods, and figures in works written by and/or about women, studied in their cultural contexts. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	546	Gender Studies	Selected topics, periods, and themes in the study of gender and sexuality, including attention to theoretical issues. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	550	Translation	Surveys theories and practices of translation into English. Considers target, audience and market. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	551	Rhetorical Traditions	Examines rhetorical traditions spanning ancient to contemporary rhetorics. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	552	Composition Studies	Selected topics in the history and theories of composition. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	553	Technologies of Writing	Critical study and cultural analysis of information technologies and their effects on various writing practices. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	554	Rhetorics of Race, Class, and Gender	Study of interdependent relationships of race, class, and gender in rhetorical constructions of self and community. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	556	Theories of Literacy	Examines various theories of literacy, their embedded values and assumptions, and their influences on academic scholarship and pedagogy. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	560	Genre Studies	Critical analysis and study of works from a single genre or comparative analysis and study of multiple genres. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	561	Film Studies	Analysis and study of film genres, cinematic techniques, and problems of interpretation and representation. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	562	forms of Poetry	Types, history, criticism, and schools of theory of metrical form. Analyzes lyric, narrative, and dramatic poetry. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	563	Forms of Fiction	Types, history, criticism, and schools of theory in the forms of fiction. Analyzes narrative and dramatic structure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		

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ENG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of English	1-12		
ENG	602	Advanced Studies in Theory and/or Criticism	Seminar courses on the principles, strategies, and applications of critical, cultural, and/or literary theory and/or criticism.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	603	Advanced Studies in Comparative Literature	Seminar courses on the problems, methods, and principles of comparative analysis. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	604	Interdisciplinary Cultural Studies	Seminar courses on work from literature, anthropology, and/or other disciplines, with an emphasis on cultural influences and functions. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	606	Advanced Studies in English Education	Current research, issues, and trends in English education. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	632	Advanced Studies in Medieval and Renaissance Literature and Culture	Seminar in works of the Medieval or Renaissance periods, studied in their cultural contexts. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	635	Advanced Studies in British Literature	Seminar courses on works produced in or about England, Scotland, and Wales, studied in their cultural contexts. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	636	Advanced Studies in American Literature	Seminar courses on works produced in or about the United States, studied in their cultural contexts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	639	Advanced Studies in Modernism and Postmodernism	Seminar courses on topics in Modernist and Postmodernist studies. May include literary and theoretical texts. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	642	Advanced Studies in Ethnic, Anglophone, or Post-Colonial Literatures	Seminar courses that consider the influence of cultural or geopolitical developments on the production and circulation of texts. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	645	Advanced Studies in Gender Issues	Seminar courses that consider the influence of gender on the production and circulation of texts. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	651	Advanced Studies in History and Theories of Rhetoric	Selected topics in the history and/or theory of rhetoric.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	652	Advanced Composition Studies	Selected topics on particular composition theories, practices, pedagogies, and figures. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	654	Advanced Studies in Rhetoric, Writing, Technology, and Culture	Advanced study of theoretical, methodological, and pedagogical issues concerning the interrelationships among rhetoric, culture, writing, and writing technologies. May be repeated for credit when topics vary.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	655	Disciplinary Discourses	Investigation of professional and disciplinary issues related to English studies. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	656	Studies in Cross-Cultural Discourse	Theoretical and methodological issues in the comparative study of discourses between cultures and communities of practice. May be repeated for credit when topics vary.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	661	Advanced Studies in Film	Seminar courses on topics, genres, and figures in film studies, including technical and theoretical issues. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	662	Poetic Genres	Creative writing courses in the long poem, the erotic image, death and transfiguration, reading and influence, and others. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	663	Fiction Genres	Creative writing courses in time and fiction, gothic fiction, myth in fiction, science fiction, and others. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		

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ENG	664	Mixed Genres	Creative writing courses in the prose poem, magical realism, the literature of obsession. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	665	Creative Methods	Creative writing courses in theory of the novel, poetics, story into film, and others. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	667	Issues in the Writing Professions	Focuses on career preparation, resources, the role of writing in the community, creative writing, and the Internet. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-15		
ENG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of English	1-15		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) OR have completed WAC 107 with A, B, C or Y
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: Literature, Writing and Film (BA, minor, certificate, and BIS), Pre Sec Educ- English, Sec Ed- English, English (Linguistics or Literature or Creative Writing) students; ENG 102, ENG 105 or ENG 108 with a C or better
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction. May be repeated when genres vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	

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ENG	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	221-W	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 101 & ENG 102 or ENG 105 or ENG 107 & ENG 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisites: Must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled OR be an Applied Science student
ENG	305	Classical and Biblical Backgrounds to Literature	Selected readings from the Bible and Greek and Latin literature in translation, emphasizing ideas, forms, and myths related to the development of English literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	311	Persuasive Writing	Advanced writing course that focuses on persuasive writing for diverse audiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	317	Cross-Cultural Writing	Cultural differences and their impact on writing and/or their role in miscommunication and misinterpretation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	
ENG	323	Rhetoric and Grammar	Practical course taught in the computer lab. Emphasizes rhetorical strategies and grammar for writers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	337-W	Major American Novels	Novels from the 19th century to the present studied in their historical and cultural contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	353-W	African American Literature: Beginnings through the Harlem Renaissance	Focuses on the history of African-American literature through the Harlem Renaissance, as exemplified in selected slave narratives, poems, and fiction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	354-W	African American Literature: Harlem Renaissance to the Present	Examines the literary productions of African-Americans from the Harlem Renaissance (about 1920) to the present focusing on fiction, poetry, drama, and essays.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	359-W	American Indian Literature	Selected oral traditions of American Indians and their influences on contemporary Native American literary works.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
ENG	363-W	Chicano Literature	Development of Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	Pre-requisite: completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108. May not enroll in ENG 363 if you have credit in TCL 363
ENG	365	History of Film	Emphasizes American film, with some study of European film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	369-W	Science Fiction and Fantasy	Development of science fiction and fantasy literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	386	American Gothic	The development of modern American Gothic as a literary form from Poe to Oates. Emphasizes the short story.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	387	Intermediate Creative Writing Workshop in Poetry	Intermediate writing of poetry. Requires term paper or equivalent out-of-class written work.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 210 or ENG 288 with C or better
ENG	388	Intermediate Creative Writing Workshop in Fiction	Intermediate writing of fiction. Requires term paper or equivalent out-of-class written work.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 288 with C or better
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	400	History of Literary Criticism	Major critics and critical traditions in the Western world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & H	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	412-W	Writing for Publication	Lectures and conferences concerning techniques of writing for publication.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	415-W	Medieval Literature	Medieval English and continental literature in translation, emphasizing cultural and intellectual backgrounds. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	418-W	European Renaissance Literature	Prose, poetry, and drama of Europe and England from 1492-1660 with an emphasis on cultural history.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	420	Multicultural Autobiographies	Examines the human experience via autobiographies and personal narratives. Multicultural, literary, and psychological perspectives on individual lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	421	Shakespeare	A selection of Shakespeare's works in different genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	423	Renaissance Drama	Topics, authors, and themes in the drama of the Tudor and early Stuart periods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
ENG	424	Milton	Selected prose and poetry, emphasizing Paradise Lost, Paradise Regained, and Samson Agonistes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	425-W	Romantic Poetry	Poetry of Wordsworth, Coleridge, Shelley, Keats, and Byron.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	431	Whitman and Dickinson	Evaluates the 19th-century American Literary Renaissance through the specialized examination of its poetry and authors in their historical context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	432	The American Renaissance	Novels, poetry, short fiction, and criticism of the major literary figures of the early to mid-nineteenth century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	433	Southern Writers	Analyzes Southern culture through the eyes of the region's novelists, short story writers, poets, filmmakers, photographers, and song writers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	437	The American Novel, 1900 - 1960	Developments in theory and practice of major novelists.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	438	American Novel Since 1960	Major novelists of the period. Developments in theory and practice.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	450	The British Novel	Focuses on the British novel from the 18th century to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	454	Gender and Literature	Focuses on the representation of gender in literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	455	Contemporary Women Writers	Critical examination of literature by contemporary women writers. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	457	Studies in American Poetry	May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	460	Ethnic Women Writers	Concentrates on selected women writers of the U.S. who are Native American, African American, Hispanic, and Asian-American.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	461	Studies in Women and Literature	Advanced topics in literature by or about women.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	462	Africana Literature	Focuses on the literature of the African Diaspora, including texts from the Caribbean, the Americas, and Africa. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	463	African-American Literature	Thematic and cultural study of African-American literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	472	Rhetorical Studies	Developments in theory and practice of major rhetorical inquiries.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
ENG	476-W	Folklore in Everyday Life	Focuses on the discipline of folklore, the theories and methods related to the oral, material, and cultural practices of society.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU or SB) & C	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	477	World Literature	Introduces world literature, mostly outside the United States and England.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	478-W	Modernist Literature	Focuses on the international nature of Modernist literature. Authors studied may include Proust, Kafka, Joyce, and Woolf.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	479-W	International Postmodern Literature	Focuses on the international nature of Postmodernist literature. Authors studied may include Rushdie, Garcia Marquez, and Toni Morrison.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	492	Honors Directed Study		N	RSC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	493	Honors Thesis		N	THE	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108

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ENG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) OR have completed WAC 107 with A, B, C or Y
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) OR have completed WAC 107 with A, B, C or Y
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Literature, Writing and Film (BA, minor, certificate, and BIS), Pre Sec Educ- English, Sec Ed- English, English (Linguistics or Literature or Creative Writing) students; ENG 102, ENG 105 or ENG 108 with a C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction. May be repeated when genres vary.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction. May be repeated when genres vary.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	214	English Grammar and Usage	Fundamentals of English grammar (word and phrase structure), English usage (punctuation, grammatical correctness), and grammatical and usage theory.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	215	Strategies of Academic Writing	Advanced course in techniques of analyzing and writing academic expository prose. Writing is research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	215	Strategies of Academic Writing	Advanced course in techniques of analyzing and writing academic expository prose. Writing is research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	217	Writing Reflective Essays	Critical examination of the influences discourse has on formation of identity; narrative analyses of self and culture.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	217	Writing Reflective Essays	Critical examination of the influences discourse has on formation of identity; narrative analyses of self and culture.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	218	Writing About Literature	Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	218	Writing About Literature	Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	230	Introduction to Film Studies	Introduces the style and cultural significance of feature films.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Eng 101, 105, or ENG 107
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	245	Popular Culture Issues	Selected topics in various forms of popular culture related to written texts.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	245	Popular Culture Issues	Selected topics in various forms of popular culture related to written texts.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 101 & ENG 102 or ENG 105 or ENG 107 & ENG 108 with C or better

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ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 101 & ENG 102 or ENG 105 or ENG 107 & ENG 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 101 and 102 (or 105) or both ENG 107 and 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 101 and 102 (or 105) or both ENG 107 and 108 with C or better
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	298	Honors Directed Study		N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-6		
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	303	Classical Backgrounds of English Literature	Readings of Greek and Latin literature in translation as they relate to literature in English.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	310	Intermediate Creative Writing	Intermediate creative writing in genres other than poetry, fiction, or science fiction. May be repeated for credit when genres vary.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 210 with a grade of D or greater or be currently enrolled
ENG	312	English in its Social Setting	Introduces the sociolinguistic study of the English language.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU or SB	
ENG	314	Modern Grammar	Modern descriptive models of English grammar.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	321	Introduction to Shakespeare	Shakespeare's major comedies, histories, and tragedies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
ENG	321	Introduction to Shakespeare	Shakespeare's major comedies, histories, and tragedies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
ENG	328	The Novel to Jane Austen	From origins of prose fiction through the 18th century.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	329	19th-Century British Fiction	Includes such authors as Austen, Dickens, Eliot, and Conrad.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
ENG	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	
ENG	335	American Poetry	Themes and developments in American poetry.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	337	Major American Novelss	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	337	Major American Novelss	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102 or 105 completed with a grade of C or better or be currently enrolled
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102 or 105 completed with a grade of C or better or be currently enrolled
ENG	354	African American Literature: Harlem Renaissance to the Present	Historical survey of African American literary traditions and cultural contexts from the 1920s to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
ENG	359	American Indian Literatures	Selected oral traditions and contemporary works by American Indian authors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
ENG	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Pre-requisite: completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108. May not enroll in ENG 363 if you have credit in TCL 363
ENG	364	Women and Literature	Approaches to issues of gender and representation in literature by and about women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	364	Women and Literature	Approaches to issues of gender and representation in literature by and about women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	385	Career Development for English Majors	Theoretical and practical aspects of career planning related to skills and interests developed in English studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
ENG	387	Intermediate Creative Writing Workshop in Poetry	Intermediate writing of poetry. Requires term paper or equivalent out-of-class written work.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 210 or ENG 288 with C or better
ENG	388	Intermediate Creative Writing Workshop in Fiction	Intermediate writing of fiction. Requires term paper or equivalent out-of-class written work.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 288 with C or better
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	411	Advanced Creative Writing	Advanced writing in genres other than poetry, fiction, creative nonfiction, or screenwriting. May be repeated for credit when genres vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 310 with a D or greater
ENG	412	Creative Nonfiction	Lectures, discussion, and criticism concerning techniques of writing creative nonfiction for publication.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 310, ENG 411 with a D or greater
ENG	465	Studies in Film	Advanced topics in cinema.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3-4		
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	487	Advanced Creative Writing Workshop in Poetry	Advanced writing of poetry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 310 or ENG 387 with a C or better

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ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	230	Introduction to Film Studies	Introduces the style and cultural significance of feature films.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Eng 101, 105, or ENG 107
ENH	245	Introduction to Writing Family History	Interdisciplinary writing course on theories, methodologies, and issues in writing family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	245	Introduction to Writing Family History	Interdisciplinary writing course on theories, methodologies, and issues in writing family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	246	Introduction to Researching Family History	Introduces research methods in family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	246	Introduction to Researching Family History	Introduces research methods in family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	311	Giants of Business	Explores leading CEOs and corporations from a humanities perspective.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1.		Pre-requisites: ENG 102, or ENG 105, or Eng 108 with a C or better or currently enrolled
ENH	317	Publishing in Literary Magazines	Analyzes the history, publishing preferences, editorial staff, and submission guidelines of four literary magazines.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	320	Writing a Personal History	Interdisciplinary writing course emphasizing theories, methodologies, and issues of composing personal histories.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	322	Editing Family History for Public Audiences	Fundamentals of editing family writing. Role of editors in analyzing, revising, and polishing manuscripts for publication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	332	Literature on Film	Studies literary texts and their adaptation to film.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102 (or 105, or 108) with a grade of C or better or be enrolled
ENH	346	Intermediate Family History Research	How to locate records, analyze and interpret evidence, and write a family history narrative.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENH 246 or HTY 246 with a C or better or currently enrolled
ENH	360	Travel Writing	Studies the genesis of travel writing, what theories inform travel writing, and the various genres of travel writing today.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, or ENG 105, or ENG 108, or ENG 112 with a grade of C or better
ENH	362	Digital Project Management for Humanities and Arts	Introduces Web design for the humanities; explores the use of the ADDIE process to create digital projects.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	364	Digital Media in the Humanities and Arts	Introduction to the digital arts is an introduction to the emerging "new media" with emphasis on still imaging, audio, video, multimedia and the World Wide Web.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	370	Art of the Personal Essay	Writing personal essays drawing on both research and personal experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	372	Environmental Creative Nonfiction	Lectures, discussion, and criticism concerning the literary history of nature writing and techniques of writing environmental creative nonfiction for publication.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	374	Environmental Issues in Literature and Film	Evaluates literary texts and films that address interconnected cultural, historical, and environmental issues.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	378	The American Southwest in Literature and Film.	Evaluates literary texts and films addressing the diverse literatures and cultures of the American Southwest.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	380	Medievalism in Modern Culture	Studies the representation of Medieval narratives, characters, themes, myths, and images in modern culture.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102(or 105, or 108) with a grade of C or better, or currently enrolled
ENH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	420	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENH	425	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENH	430	Studies in International Film	Studies non-American narrative film.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	436	American Film Musicals	A cultural history of American film musicals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	440	Great Directors	Studies the work of one or more influential directors.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, or ENG 105, or ENG 108, or ENG 112 with a grade of C or better
ENH	475	Environmental Literary Criticism	Evaluates the disparate critical practices that constitute what is the emerging literary project known as "ecocriticism" or "environmental literary criticism.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102 (or 105, or 108) with a grade of C or better, or be currently enrolled
ENH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
ENH	492	Honors Directed Study		Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6		
ENH	493	Honors Thesis		N	LEC	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
ENH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		Pre-requisites:Academic level:Senior; majors

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ENH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
ENH	520	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENH	525	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
EPA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EPA	795	Continuing Registration		N	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EPA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EPD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
EPD	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		Pre-requisite: EDP 710, EDP 712 or EDP 714 with C or better
EPD	710	Current Research in Design	Review and critical evaluation of contemporary literature and method in architecture, building science, interior design, industrial design, and landscape architecture. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		Pre-requisite: PhD in Environmental Design & Planning student
EPD	712	Current Research in Planning	Review and critical evaluation of contemporary literature and method in environmental planning, landscape ecology, urban design, and urban and regional planning. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		Pre-requisite: PhD in Environmental Design & Planning student
EPD	714	Current Research in History, Theory, and Criticism	Review and critical evaluation of contemporary literature and method in the theory and history of architecture, design, and planning. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		Pre-requisite: PhD in Environmental Design & Planning student
EPD	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		

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EPD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-15		
EPD	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		
EPD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-15		
ESS	501	Environmental Social Science Theory and Practice I	First part of a two-semester core course investigating key conceptual domains of environmental social science from interdisciplinary and comparative perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ESS	502	Environmental Social Science Theory and Practice II	Second part of a two-semester core course investigating key conceptual domains of environmental social science from interdisciplinary and comparative perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ESS	510	Urban Environments	Investigates major issues and themes on the urban environment, from urban sprawl to environmental justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	513	Institutions	Studies formal and informal institutional arrangements for the governance of natural resources using case studies, experiments, and formal models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	514	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ESS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ESS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ESS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
EST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	200	Project Lab	Provides theoretical and practical overview of principles of measuring instruments and the main objective is to build good lab disciplines.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
EST	210	Circuit Analysis I	Parallel/Series circuits, ohm's law, network theorems, capacitors/inductors and transient analysis. Overview of electronic devices, BJTs, FETs, op-amps.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EST	310	Circuit Analysis II	Electronic device analysis and introduction to design. Power supplies, diode circuits, FETs, BJTs, op-amps. Emphasizes frequency response.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; EET 208 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EST	345	Planning and Delivering Engineering Projects	Project-based, hands-on course teaches team building, planning, soft skills, tracking progress, and powerful methods that deliver successful, on-time projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EST	370	Sensors	Overview of sensor technology, including mechanical, magnetic, radiation, thermal, chemical, and biological applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Must have received a D or better in EST 200 and EST 210
EST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		

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EST	482	Industrial Practice: Internship/Co-Op	Specially assigned or approved activities in electronic industries or institutions. Requires report.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
EST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
EST	490	Electronics Project	Individual or small group projects in applied electronics; emphasizes lab practice or hardware solutions to practical problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
EST	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
EST	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
EST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
EST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
EST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Must have an University Cum GPA of 3.00 or greater; Must be a Tech Science or Engineering senior OR a Graduate, NonDegree or Post Bacc student
EST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		

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EST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	372	Wireless Communication Systems	Components and signal processing for modern wireless communication systems, including major applications, problems, and new technologies.	N	LEL	N	OPT	College of Tech & Innovation	INACTIVE - Department of Electronic Systems	3.		Prerequisites: EST 310 with a grade of D or better
ETH	100	Introduction to Ethnic Studies	Undertakes an introductory comparative analysis of ethnic groups to understand cultural diversity within the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
ETH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	300	Principles of Ethnic Studies	Familiarizes students with a range of analytical and theoretical frameworks in the field of ethnic studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	C	
ETH	310	Research Methods in Ethnic, Racial, and First Nations Populations	Examines analytical tools and methodological approaches (ethnography, oral histories, digital-storytelling, information literacy) to study ethnic, racial, and first nations populations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
ETH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ETH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ETM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	301	Environmental Management	Focuses on knowledge and skills necessary to manage environmental programs. Perspectives include regulatory, individual, corporate, and consulting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	302	Water and Wastewater Treatment Technology	Explores the development of treatment technologies. Addresses regulatory standards. Emphasizes theory and practice of system design, lab analysis standards and procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	303	Environmental Regulations	Explores environmental laws, regulations, and directives. Addresses air, land, and water.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	360	Introduction to Emergency Management	Emergency management theories. Comprehensive emergency management. Mitigation, preparedness, response, and recovery. Post-disasters and policy formation. Current FEMA all-hazards approach.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	362	Managing Natural and Technological Disasters	Federal, state, and local responses to emergencies. Management of mass casualties, evacuation, sheltering, and terrorism; declaration of emergency procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	363	Computer Applications in Emergency Management	Explores specific computer programs that are currently in use for contingency planning, tracking chemical inventories, and response resources. Cross-listed as FSM 363. Credit is allowed for only ETM 363 or FSM 363.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	364	Toxicology and Biohazards in Emergency Management	Introduces poisons. Dose response routes of exposure and toxicokinetics. Diseases associated with natural disasters. Clinical presentation of treatments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	401	Hazardous Waste Management	Definition of hazardous waste, RCRA and CERCLA regulations, hazardous waste classification system. Overview of hazardous waste management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	402	Unit Treatment Technologies	Addresses various treatment technologies for contaminated air, water, and soil. Emphasizes design based upon medium, type of contamination, and concentration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	406	Environmental Chemistry	Examines reactions, transport, and fates of hazardous chemicals in water, soil, air, and living organisms.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	407	Occupational Hygiene	Overview of occupational health hazards, including recognition, evaluation, and control. Includes regulatory status and health standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	424-E	Comprehensive Emergency Management	Addresses theory and management techniques for emergency preparedness, including mitigation, preparedness, response, and recovery.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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ETM	424-M	Comprehensive Emergency Management	Addresses theory and management techniques for emergency preparedness, including mitigation, preparedness, response, and recovery.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	426-E	Environmental Issues	Explores the science and policy implications of contemporary problems that threaten the environment.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	426-M	Environmental Issues	Explores the science and policy implications of contemporary problems that threaten the environment.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	428	International Environmental Management	Emphasizes technological and economic pressures experienced by developing countries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	
ETM	460-E	National Incident Management System (NIMS)	Covers concepts, terminology, players, compliance requirements, including doctrine of National Incident Management System per HSPD-5. Discussion of National Response Plan.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	460-M	National Incident Management System (NIMS)	Covers concepts, terminology, players, compliance requirements, including doctrine of National Incident Management System per HSPD-5. Discussion of National Response Plan.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	461	Homeland Security	In-depth analysis of policies, procedures, and organizational structure for effective homeland security program. Covers all hazard/all risk philosophy. Credit is allowed for only ETM 461 or 561. Prerequisite: junior or senior standing or instructor approval.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	468	Simulation and Exercising	Requirements, planning, conduct, and critique of exercises related to emergency planning. Emphasizes realism using moulage and props.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	469	Terrorism Defense	Explores the background and evolution of terrorism. Presents specific tactics for preparation for and response to acts of terrorism.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	501	Principles of Hazardous Materials and Waste Management	Foundation for courses in curriculum. Topics include definitions of toxic and hazardous substances and wastes, RCRA classification, and OSHA criteria.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	502	Regulatory Framework for Toxic and Hazardous Substances	Examines federal, state, and local regulations for hazardous materials and wastes. Includes history and trends in regulatory development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	503	Principles of Toxicology	Interaction of chemicals with life and environment. Mechanisms of toxic action, dose-response relationships, toxicity testing models, predictive toxicology, and epidemiology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	504	Technology for Storage, Treatment, and Disposal of Hazardous Materials	Current and state-of-the-art technologies and future trends for storage, treatment, and disposal of hazardous materials and waste.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	505	Quantitative Analysis and Practical Laboratory Techniques	EPA methodologies for sampling and analysis of soils and water. Includes quality assurance and regulatory requirements. Lab is arranged off site.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	506	Chemistry of Hazardous Materials	Chemistry and toxicology of hazardous chemicals. Topics include proper handling, storage, transportation, and disposal.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	507	Industrial Hygiene	Emphasizes chemical hazards in industrial settings. Topics include recognizing and measuring hazards, control techniques, and regulatory standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	520	Sustainability and Sustainable Development	Explores broad field of environmental sustainability with U.S. and international coverage of green living practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	522	Air Pollution and Toxic Chemicals	Examines issues in the measurement analysis and control of toxic chemicals in air pollution.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	523	Soils and Groundwater Contamination	Theoretical and practical hydrogeology as it applies to cleaning up contamination. Investigative techniques, monitoring, risk assumptions, and assessment methodology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	524	Integrated Emergency Management	Theory and practice of comprehensive emergency management. Explores scope and function of Department of Homeland Security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	525	Risk Assessment for Hazardous Materials	Applies the risk assessment process in situations ranging from hazardous facilities regulation to toxic substances in the environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	526	Current Environmental Technology Issues	In-depth study of current issues in environmental technology facing both the private and public sectors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	527	Environmental/Resources Regulations Concepts	Develops environmental regulations from common law to statutory requirements. Emphasizes Superfund, hazardous materials, toxics, and liability contracts.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	528	International Environmental Management	Studies environmental issues and laws outside the U.S., impact of free trade, and multinational corporations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	540	International Environmental Law and Policy	Studies international environmental agreements, enforcement mechanisms, and the role of NGOs and international organizations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	560	Terrorism and Weapons of Mass Destruction	Historical evolution of terrorism and weapons of mass destruction. Analyzes current theories and mitigation, preparedness, and response tactics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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ETM	561	Homeland Security	Presents skills necessary to develop policies, strategies, programs, and organizational structure of an all hazards/all risk homeland security program. Credit is allowed for only ETM 561 or 461.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	567	Information Technology in Emergency Management	Provides theory and application of computer-based programs in emergency management and the use of various emergency modeling programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	571	The Foundations of Homeland Defense and Security	The enemy, policies, key players, and legal issues surrounding homeland defense and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	572	Multidisciplinary Approaches to Homeland Defense and Security: Collaborating to Integrate	Multidisciplinary approach to prevention, mitigation, preparedness, response, and recovery from incidents of national significance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	573	Strategic Planning and Organizational Imperatives in Homeland Defense and Security	Efforts to integrate and mobilize government and private sector resources for homeland defense and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	574	Special Topics in Homeland Defense and Security	Discusses contemporary challenges of asymmetric warfare, terrorism, and the virtual global battlespace, as well as emerging threats to homeland security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ETM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ETM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		
ETM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		
EXW	100	Introduction to Health and Wellness	Current concepts in health, exercise, and wellness. Emphasizes personal health, theories, attitudes, beliefs, and behaviors.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	
EXW	105	Physical Activity Instruction: Beginning	Beginning instruction in a variety of physical activities such as aerobics, aquatics, racquet sports, physical conditioning, and golf. Y grade only. May be repeated for credit. 2 hours per week. fee	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
EXW	205	Physical Activity Instruction: Intermediate	Intermediate-level instruction in a variety of physical activities. Continuation of EXW 105. Y grade only. May be repeated for credit. 2 hours per week. fee	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Must have completed EXW 105 with a C or greater
EXW	212	Instructional Competency Laboratory	Methods of instructing and leading fitness activities including aerobic, resistance, and flexibility activities. May be repeated for credit.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Must be a Exercise Wellness student
EXW	215	Physical Activity and Healthy Lifestyles	Applies principles of physical activity to personal fitness testing and program planning for people of all ages. Telecampus course. Not open to Exercise and Wellness majors or to students with credit in EXW 325.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Non-EXW students; Credit is allowed for only EXW 215 or EXW 325
EXW	300	Foundations of Exercise and Wellness	Principles and foundations of fields of study related to health promotion, physical activity, and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisites: EXW 100 or KIN 100 with a D or better, or co-enrolled in EXW 100 or KIN 100
EXW	301	Concepts of Fitness and Wellness	Guidelines for achieving health benefits of physical activity and other healthy lifestyles. Telecampus course. Not open to Exercise and Wellness majors or to students with credit in EXW 325.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Non-EXW students; Students may not enroll for EXW 301 who have received a D or better in EXW 325
EXW	302	Fundamentals of Wellness	Overview of fundamental health, exercise and wellness concepts. Emphasizes personal wellness assessment and application.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	
EXW	305	Physical Activity Instruction: Advanced	Advanced-level instruction in a variety of physical activities. Continuation of EXW 105. May be repeated for credit. Y grade only. 2 hours per week. fee	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	310	Computer Skills and Technology for Exercise and Wellness	Applies computer technology to principles of social marketing, tailored communication, e-health consumerism, and statistical analysis.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	CS	Pre-requisites: Must be a Exercise Wellness student; must have completed MAT114, MAT117, MAT119, MAT142 or MAT170 with a C or greater
EXW	311	Special Populations in Exercise and Wellness	Introduces the challenged population and surveys the agencies that work with special populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	315	Physiological Foundations of Movement	Studies human movement with emphasis on physiological function of the body in response to physical activity and fitness training. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: BIO 201 and BIO 202 with C or better
EXW	320	Program Development and Leadership	Principles of planning, organizing, promoting, and leading fitness and wellness programs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EXW	322	Spa Management I	History of the spa industry. Overview of different types of spas, spa programs and services, facilities and equipment, operational procedures and systems, the wellness component of spas, and computer applications in spa operations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
EXW	325	Fitness for Life	Physical fitness and benefits of exercise with emphasis on self-evaluation and personalized program planning for a lifetime. Not open to students with credit in EXW 215 or 301.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Students may not sign up for EXW 325 who have received a D or better in EXW 215 or EXW 301
EXW	330	Kinesiological Foundations of Movement	Study and consideration of human movement with emphasis on kinesiology principles and their application to movement and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: BIO 201 with C or better
EXW	342	Health Behavior Change	Examines major theories of health behavioral change. Develops intervention strategies and techniques employed to facilitate health behavioral change.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed PGS 101 with a C or greater
EXW	346	Health Promotion and Program Evaluation	Introduces and applies theory-based concepts and methods of health promotion and program evaluation.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: EXW 300 with C or better; EXW 342 with C or better
EXW	350	Substance Abuse and Addictive Behavior	Studies addictive substances, their pharmacology and effects. Psychosocial risk factors for, and consequences of, substance abuse.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	380	Body Image and Wellness	Explores body image in American culture from physical, psychological, historical, and societal perspectives.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed NTR 241 and PGS 101 with a C or greater
EXW	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	400	Stress Management for Wellness	Examines the stress response and management from a behavioral perspective as it pertains to individuals or groups.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed PGS 101 with a C or greater
EXW	420	Exercise Testing	Theoretical basis and practical application of pre-exercise screening, exercise testing, estimates of energy expenditure, and interpretation of results. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Must have completed EXW 315 with a C or greater
EXW	425	Exercise Prescription	Theoretical basis for and application of general principles of exercise prescription to various ages, fitness levels, and health states.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: EXW 315 with C or better; EXW 330 with C or better; Pre/Co-requisites: EXW 420 with C or better if completed
EXW	442	Physical Activity in Health and Disease	Examines the role of physical activity and fitness in the development of morbidity and mortality throughout the human life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: EXW 300 with a D or better
EXW	444	Epidemiology	Introduces epidemiological concepts and prepares the student to read, comprehend, and report epidemiological research.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 300 and EXW 310 with a C or greater
EXW	450	Cultural and Social Issues in Exercise and Wellness	Examines contemporary sociocultural issues and social determinants of health and physical activity. Focuses on health disparities, obesity, and social stressors.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	(L or SB) & C	Pre-requisites: PGS 101 and EXW 300 with C or better
EXW	460	Resistance Training Application and Theory	Fosters critical thinking as it applies to resistance training theory.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 315 with a C or greater
EXW	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	FLD	Y	GNA	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Exercise and Wellness concentration students with EXW 400, 420, and 425 with C or better or EXW Health Promotion concentration with EXW 346, and 444 with C or better
EXW	492	Honors Directed Study		N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
EXW	493	Honors Thesis		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
EXW	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		
EXW	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
EXW	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	501	Research Statistics	Statistical procedures; sampling techniques, hypothesis testing, and experimental designs as they relate to research publications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	505	Applied Exercise and Wellness Laboratory Techniques	Investigative techniques used in the applied exercise testing/prescription lab. Emphasizes cardiorespiratory assessment, energy balance, body composition, and electrocardiography. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	534	Sports and Fitness Conditioning	Bases of sports and fitness conditioning, including aerobic and anaerobic power, strength, flexibility, and analysis of conditioning components for sports and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	536	Physiological Aspects of Physical Activity and Chronic Disease	Role of physiological mechanisms associated with acute and long-term physical activity and its influence on chronic disease and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	538	Obesity, Exercise and Health	Critically examines scientific and medical evidence concerning obesity, exercise, and health across the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

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EXW	540	Psychosocial Issues in Exercise and Wellness: Stress, Coping, and Resilience	Critically explores the impact of psychological and social factors on human wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	542	Health Promotion	Theory and research concerning fitness and wellness programs in nutrition, physical activity, smoking cessation, and stress management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	544	Fitness/Wellness Management	Development of the fitness/wellness industry. Planning, organizing, promoting, and managing fitness/wellness programs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	635	Physical Activity and Aging	Examines and discusses the theoretical and applied health-related research on physical activity and aging.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	640	Analysis of Variance for Exercise and Wellness	Analyzes variance methods with an emphasis on research measures of human performance.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	641	Qualitative Research Methods	Introductory overview of qualitative research methods frequently used in education and health. Emphasizes analysis of research and practical application.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	642	Exercise Epidemiology	Physical activity, exercise, and physical fitness and the development of chronic disease.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 500 and EXW 501 with a C or greater
EXW	643	Correlation/Regression/Multivariate Statistics	Graduate-level statistics course for PhD/master's students who will be doing research in the area of exercise and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	645	Biostatistics in Physical Activity, Nutrition, and Wellness	Introduces biostatistical methods in physical activity, nutrition, and health promotion.	N	LEL	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	701	Research Methods for Community-Based Interventions	Develops skills to design and conduct community-based research interventions, identify essential elements of program fidelity, analyze quasi-experimental research.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
EXW	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
FAS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Freshman Standing; Maximum 25 hours

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FAS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	301	Introduction to Parenting	Integrated approach to understanding parenting and parent-child interactions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	332	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, and responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	361	Research Methods	Methods of social science research, including the fundamental assumptions underlying research, critique, research design, data collection, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	Pre-requisites: SOC 101 (or SOC 301 or CDE 232) and SOC 390 (or equivalent) completed with D or better or currently enrolled. Credit is allowed for only FAS 361 or SOC 391
FAS	370	Family Ethnic and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
FAS	390	Supervised Research Experience	Practical, firsthand experience within current faculty research projects in family studies or child development. Y grade only; may be repeated for total of 6 hours.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
FAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	431	Parent-Adolescent Relationships	Dynamics of the relationships between parents and adolescents. Developmental characteristics of adolescence and the corresponding adult stage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	435	Advanced Marriage and Family Relationships	Recent research, issues, and trends relating to marriage and family interaction. Influence of family composition, physical environment, family patterns, and values on family dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
FAS	440	Fundamentals of Marriage and Family Therapy	Introduces the fundamental orientations of marriage and family therapy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisite: Must be an Honors student
FAS	493	Honors Thesis		N	RSC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
FAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	497	Honors Colloquium		N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
FAS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		
FAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
FAS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	531	Family Theory Development	Historical and current approaches to theory development, evaluation, and application in family studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	539	Research Issues in Family Interaction	Critical review of current and past research in the area of family dynamics. Emphasizes interactional processes within the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	570	Introduction to Marriage and Family Therapy	Introduces major marriage and family therapy orientations. Reviews history, theory, application, and outcome research for each orientation.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	571	Assessment in Marriage and Family Therapy	Assessment and outcome evaluation of couples and families involved in marital and family therapy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	572	Advanced Techniques in Marriage and Family Therapy	In-depth review of assumptions and advanced techniques associated with contemporary marriage and family therapy approaches.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	573	Dysfunctional Marriage and Family Relationships	Critical review of current theory and empirical evidence connecting marital and family interaction patterns with aberrant behavior.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student

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FAS	574	Family Theory for Marriage and Family Therapy	Examines the theoretical orientations within the family therapy field, including the evolution, premises, and assumptions of each.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	575	Applied Issues in Couples - Therapy	Examines issues unique to therapeutic work with couples, including lifespan transition, multicultural issues, divorce, parenting, and remarriage. Seminar. Enroll requirements: Pre-requisites: Admission into MAS-MFT program.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	576	Applied Issues in Human Development for MFT: Psychopathology	Recognition and diagnosis of maladaptive behavior according to DSM criteria across human development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	577	Applied Issues in Child and Adolescent Development for Marriage and Family Therapy	Examines developmental factors that lead to disorders in children and adolescents, with an emphasis on a systemic framework.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	578	Applied Issues in Sexuality for Marriage and Family Therapy	Examines the major methods used to assess and treat sexual issues and the treatment of sexual disorders.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	579	Applied Research in Marriage and Family Therapy	Critical examination of research concepts, quantitative and qualitative research designs, and applicability in clinical settings.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	581	Professional Issues and Ethics	Examines legal and ethical concerns of marriage and family therapists, emphasizing licensing standards and the Code of Ethics.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
FAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FAS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
FAS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
FAS	301-W	Introduction to Parenting	Integrated approach to understanding parenting and parent-child interactions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	332-W	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
FAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
FAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
FAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	332	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, and responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	370	Family Ethnic and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
FIN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-3		
FIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		
FIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		
FIN	300	Fundamentals of Finance	Theory and problems in financial management of business enterprises.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA and 2.5 ASU business GPA; ACC 241. ECN 221 and ECN 212 with a grade of C or better.
FIN	301	Fundamentals of Finance	Introduces the basic concepts, principles, and tools of financial management.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status; ACC 240, ECN 112 and QBA 221 with C or better
FIN	302	Managerial Finance	Theories and techniques used for business decisions in working capital management, capital budgeting, financial control, and long-term financing.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W. P. Carey Finance major; ACC 240/241. ECN 221 and ECN 212 with a grade of C or better.
FIN	303	Honors Finance	Covers basic principles of finance, practical tools for financial decision making, and evaluation methods employed by the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Must be an Honors student; Must have ACC 241, ECN 211 or 213, ECN 212 or 214, ECN 221 and MAT 211 or 271 with a grade of C or better.
FIN	331	Financial Markets and Institutions	Analyzes financial markets and intermediaries. Theory of financial intermediation, interest rate theory, money and capital market instruments, and government regulation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 241 and ECN 221 with a grade of C or better.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FIN	361	Advanced Managerial Finance	Builds on FIN 302. Advanced material on capital budgeting, cost of capital, CAPM, asset valuation, capital structure, and financial policy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; must have completed FIN 302 or FIN 300 with a grade of C or greater or be currently enrolled.
FIN	380	Personal Financial Management	Dynamic analysis of personal financial planning, including time value of money, stock and bond investment, and retirement and estate planning.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Non-Finance student; Must have minimum 2.0 ASU cumulative GPA and minimum 56 earned hours, or be a non-degree seeking student
FIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: Non-Finance students; Minimum cumulative GPA of 2.00; Minimum 56 hours OR Non-degree seeking student
FIN	410	Investments	Strategies and mechanics of investing in stocks, bonds, and derivatives. Topics include investment selection, portfolio management, financial markets, and institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Management student with professional or conditional status OR Finance Mgt student; FIN 300 or 301 with C or better
FIN	411	International Finance	Explores the environmental challenges facing financial managers in global financial markets and develops tools and techniques to meet such challenges.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status OR Finance Mgt OR Int' Studies student; FIN 300 or 301 with C or better; GLB 301 with C or better
FIN	412	Financial Management	In-depth extension of core finance course. Typical topics include financial planning/control, risk and valuation, capital budgeting.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status OR Finance Mgt student; FIN 300 or 301 with C or better; ACC 236 or 410 with C or better
FIN	421	Security Analysis and Portfolio Management	Security analysis theory and practice. Selection and management of financial asset portfolios. Securities markets and portfolio risk-return analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 303 or 361) with C or better
FIN	427	Derivative Financial Securities	Study of stock options, index options, convertible securities, financial futures, warrants, subscription rights, and arbitrage pricing theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; FIN 421 with C or better
FIN	431	Management of Financial Institutions	Asset/liability and capital management in financial institutions. Influence of market factors and regulatory agencies. Emphasizes commercial banks.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and 361 with C or better; Honors student in Finance: FIN 303 and FIN 331 with C or better
FIN	456	International Financial Management	Exchange rate determination, financial markets, managing multinational corporations, capital budgeting, and hedging currency risk exposure from an international perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.	G	Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and 361 with C or better; Honors student in Finance: FIN 303 and FIN 331 with C or better
FIN	461	Financial Cases and Modeling	Case-oriented capstone course in managerial finance. Contemporary issues of liquidity management, capital budgeting, capital structure, and financial strategy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.	L	Pre-requisites: W.P.Carey Finance BS student; FIN 421 with C or better
FIN	481	Honors Seminar in Finance	Honors course covering topics that include theory and applications concerning managerial finance, investments, and financial institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student with Honors status; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Finance	1-6		Pre-requisites: Must be an Honors student
FIN	493	Honors Thesis		N	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-6	L	Pre-requisites: Must be an Honors student
FIN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-6		
FIN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-7		Pre-requisites: W.P. Carey Finance students with professional status; FIN 331 and 361 with C or better; ACC 315 or 340 with C or better
FIN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEL	Y	Z1	W.P. Carey School of Business	Department of Finance	1-3		Pre-requisites: W.P. Carey Finance students with professional status
FIN	502	Managerial Finance	Develops analytical techniques and financial theories used to make optimal decisions in a corporate setting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	2-4		Pre-requisites: ACC 502 with C or better; ECN 501 with C or better
FIN	520	Financial Modeling	Demonstrates how Excel programming techniques can be used to model and manipulate financial data, as applied to equities, options on equities, and options on bonds.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	521	Investment Management	Valuation of equities and fixed income securities. Trading strategies and portfolio management. Performance evaluation. Trading mechanisms and market organization.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	525	Investment Strategies	Introduces theories and practices of the investment process. Covers the fundamental principals and applications of modern portfolio theory, risk-return relation, asset pricing models, investment performance evaluation, and stock and bond valuation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	527	Derivatives and Risk Management	Characteristics and pricing of forwards, futures, swaps, options. Applies instruments for hedging strategies, corporate risk management, and capital budgeting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FIN	530	Derivatives	Covers options, forward contracts, futures contracts, and swaps. Provides a good knowledge of how these contracts work, how they are used, and how they are priced.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	531	Financial Markets and Intermediaries	Short-term and long-term fixed-income securities and their marketplaces, tools for bond portfolio and interest rate risk management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	540	Financial Markets and Instruments	Offers a comprehensive exploration of the revolutionary developments occurring in the world's financial markets.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	550	Fixed Income Securities	Describes important fixed income securities and markets, and develops tools for valuing fixed income securities and managing interest rate risk. Covers traditional bonds and term structure concepts as well as fixed income derivatives and interest rate modeling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	551	Applied Fundamental Analysis	Analysis of financial documents to determine quality of earnings. Forensic financial analysis to diagnose financial health and sustainable growth.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 and ACC 502 with a grade of C or greater or be currently enrolled
FIN	556	International Financial Management	Behavior of exchange rates, interest rates, inflation rates. Analyzes corporate exposure to exchange rate risk and hedging strategies. Multicurrency capital budgeting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater or be currently enrolled
FIN	560	International Finance and Investments	Examines the financial issues of an international investment decision. Main topics include foreign exchange market, investment alternatives in the international capital markets, and the management of foreign exchange risk.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	561	Strategic Financial Management	Capstone case-oriented course in strategic applications of corporate finance. Acquisition, allocation, and management of funds within the business enterprise.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	570	Portfolio Strategies and Hedge Funds	Introduces the principles of asset valuation from an applied perspective. Valuation of financial securities and portfolio management applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		
FIN	581	Advanced Valuation Methods	Analyzes practical aspects of valuing the enterprise using economic value added, free cash flow, and other financial techniques.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
FIN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: FIN 502 with C or better
FIN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-12		
FIN	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	781	Theory of Finance	Fundamental tools of financial economics; asset pricing, arbitrage, option pricing, capital structure, dividend policy, asymmetric information, and transaction-cost economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FIN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-15		
FIN	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Finance	1.		
FIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-15		
FIN	300	Fundamentals of Finance	Theory and problems in financial management of business enterprises.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W.P. Carey BS/BA student or West Global Mgt student with Professional status
FIN	380	Personal Financial Management	Dynamic analysis of personal financial planning, including time value of money, stock and bond investment, and retirement and estate planning.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Non-Finance student; Must have minimum 2.0 ASU cumulative GPA and minimum 56 earned hours, or be a non-degree seeking student
FLA	464	Politics of Drama in 20th-Century Europe	Interdisciplinary examination of European drama before and after WWII.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FMP	201	Film: The Creative Process I	History, elements, and techniques of theatrical film: cinematography, directing, acting, scriptwriting, producing, and criticism. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	
FMP	250	Sex and Violence in Film and TV: Ethics Survey	Sex and violence portrayals in media; examines societal evolution, technological development, market imperatives, production codes, and industry realities and practices.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
FMP	300	Focus on Film	Specialized study of prominent film artists, techniques, and genres. Emphasizes the creative process.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: ENG102, 105 or 108 with C or better
FMP	318	Directing for Film	In-depth analysis of directing theory, textual analysis, visualization, shot composition and spatial connection, staging, rehearsal techniques, and camera movement.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Film and Media Production student; FMP 320 with C or better
FMP	320	Film and Media Post-Production	In-depth analysis of editing theory, storytelling, nonlinear editing techniques and equipment, basics of visual and audio effects.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Must be in Film and Media Production student; Completed FMP 300 (or THE 400) with a grade of C or better
FMP	345	Cinematography I	Cinematographer's role, photographic and visual theory, framing, shot composition, cameras and equipment, crew management, basic lighting for film and video.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
FMP	417	Business Ethics in Entertainment	Business and ethical practices of the entertainment industry; analysis of ethical decision-making techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	480	Film Production Capstone I	Preparation for final project: screenplay, budget, shooting schedule, production lists and reports for preproduction of required capstone film.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: FMP 318 with C or better; majors only
FMP	481	Film Production Capstone II	Final project shooting and postproduction: shooting, editing picture, sound, effects and music; audience screening of required capstone film.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: FMP 318 with C or better; majors only
FMP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
FMP	492	Honors Directed Study		N	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		
FMP	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be an Honors student
FMP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Must be a Film & Media Production student
FMP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Pre-requisites: Must be a Film & Media Production student

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FMP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
FMP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisite: Fine Arts Graduate student
FMS	100	Introduction to Film	Introduces the narrative structure, visual style, and cultural elements of film. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	
FMS	110	Introduction to New Media	Explores the cultural effects of new media technologies. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	
FMS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
FMS	200	Film History	Introduces the technological, aesthetic, social, and economic aspects of international film history.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	(L or HU) & H	
FMS	202	Religion and Popular Culture	Explores various intersectors between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	
FMS	209	Screenwriting Fundamentals (online)	Studies the creativity and the technique of screenwriting for the conventional narrative film and for TV; student writing exercises culminate in a script for micro cinema.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: Restricted to online Film and Media Studies students only
FMS	270	Race and Gender in American Film	Explores how Hollywood shapes perceptions of race and gender in American society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Credit is allowed for only FMS 270or TCL 270
FMS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	300	Media and Cultural Studies	The history of media and its cultural impact. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	Pre-requisites: Must have completed FMS 100 with a grade of C or greater; Must have completed one of the following courses with a grade of C or greater: ENG 102, 105 or 108
FMS	309	Intermediate Screenwriting	Utilizing the elements of storytelling, students develop and write a treatment and the first act of a screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	310	Asian Pacific American Arts and Cultures	Explores Asian Pacific American cultural expression in art, literature, film, theatre, dance, and music.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	
FMS	312	Film, Media, and Politics Today	Examines how entertainment technologies inform political innovation and campaigning.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	313	Anti-Semitism in the Media	By examination and discussion of various media, explores the phenomenon of modern anti-Semitism.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	340	Contemporary American Film and Popular Culture	Analyzes American films, television programs, and music as popular cultural documents. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	345	Asian Pacific Americans and Film	Examines representations of Asian Pacific Americans in narrative, popular, experimental, and documentary film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C & H	
FMS	350	Virtual Reality in Film and Media	Analyzes virtual reality in films, media, and fiction. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	351	Emerging Digital Media	Analyzes modern cultural and digital technologies. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L	Pre-requisites: Must have completed one of the following courses with a grade of C or greater: ENG 102, 105 or 108
FMS	352	Chicana/o Film	Explores how Chicano and Chicana filmmakers have interpreted the Chicano experience through the medium of film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	C	
FMS	370	Signs of Aliens: Semiotics of Film and Popular Culture	Introduces semiotics and cultural studies; looks at various meanings ascribed to the sign of the alien.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	
FMS	376	Virgin Mary in History, Film, and Culture	Introduces formation and development of cult of the Virgin Mary; analyzes transformations of Mariology within historical, cinematic, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only FMS or REL 376
FMS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	409	Advanced Screenwriting	Utilizing the elements of storytelling, students outline, develop, and write a feature-length screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites:ENG 102(or ENG 105/108); FMS 100; FMS 309 with grades of C or better, or currently enrolled
FMS	440	Los Angeles: Movies and Culture	Explores film treatment of the historical culture of Los Angeles. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	441	Global Cinema	Examines how film represents three important dimensions of globalization: its relationship to national culture, terrorism, and immigration. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & G	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	450	Technology, Culture, and Media	Studies the socio-political relationships among technology, culture, and media. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	460	Masculinity and Film	Examines the representation of masculinity and the male body in film. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better

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FMS	461	Film Theory and Criticism	Examines the major positions and issues in film theory from an historical perspective. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Prerequisite(s): ENG 102, 105 or 108 with C or better; FMS 100 with C or better; Credit is allowed for only FMS 461 or SLC 440
FMS	464	Latina/o Literature	Development of Latina/o literature. Study of genres and themes; attention to literary antecedents of the new U.S.-based Latina literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	(L or HU) & C	Pre-requisites: You may not enroll in FMS 464 if you have credit in TCL 464
FMS	465	Chicana/o and Latina/o History on Film	Explore history on film; the processes, developing critical perspectives about historiography, and film in relation to U.S.-Mexican borderlands.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Pre-requisites: Completed TCL 201 with a grade of D or better or currently enrolled. May not enroll in FMS 465, if received credit for TCL 465
FMS	466	Constructing the Border on Film	Explores the U.S.-Mexico border on film, examining how border images have been constructed and shaped over time.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	C	
FMS	468	Crime and Violence in American Film	Addresses three primary aspects of crime and violence in film: representation, societal attitudes, effects on audience.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	470	Race, Sex, and Identity Online	Relying on critical and cultural theory, addresses the relationship between race, sex, and social identity online.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only FMS or TCL 470
FMS	471	Latinos In Hollywood	Studies representations of Latinos in film; stereotyping, politics of metaphor, allegory, star discourse, self-representation, resistance, and independent film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	480	Globalization, Technology, and Culture	Studies the socio-political relationship between media and the evolution of globalization. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & G	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	481	Entertainment Technologies	Applies academic and industry knowledge to simulate and to solve "real world" entertainment industry problems and needs.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	482	Entertainment Industries	Uses historical methodologies to critique emerging trends in the business of new media storytelling.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	483	Techno-Entertainment Convergences	Uses historical and scientific methods to forecast future technological developments and use in the entertainment industry.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
FMS	486	Holocaust on Film	Examines how motion pictures recorded actual holocaust events and have depicted them since World War II.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better. Credit is allowed for only FMS 486 or REL 486
FMS	487	Religion and Film	Uses a transdisciplinary approach to explore cinematic representations of religious institutions, belief, and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	490	Capstone Seminar	Capstone seminar.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
FMS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6	L	Pre-requisites: Must be an Honors student
FMS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
FMS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
FMS	502	Hollywood Film Historiography (Online)	This course is offered online only. Explores historiographic and critical scholarship on Hollywood as an industrial, cultural, and aesthetic enterprise.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	507	Crime and Violence in American Film (Online)	This course is available online only. Focuses on historiographic and critical scholarship on three aspects of crime and violence in American film: (1) regulation and censorship; (2) representation and society; and (3) theories about the effects on audiences of viewing crime and violence in films.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	509	Race, Sex, and Identity Online (Online)	This course is available online only. Investigates scholarly methods and studies focused on the intersection of race, gender, and sexuality online.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	511	Fundamentals of Cinema & Television Narrative Online	Studies the creativity and the technique of screenwriting for the conventional narrative film and for television. Student writing exercises culminate in a script for micro-cinema. Seminar. Pre-requisite: online student in MAS American Media and Popular Culture	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	512	Intermediate Cinema and Television Narrative (online)	Focuses on the feature-length screenplay; students complete the first act and treatment of an original feature.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students

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FMS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FRE	101	Elementary French	Intensive aural/oral drill in class and lab; basic grammar supplemented by simple prose readings. Credit is allowed for only FRE 101 or 111	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students may not sign up for FRE 101 if they have received a C or better in FRE101,102,201,202,205,311,312,321,322,411,412
FRE	102	Elementary French	See FRE 101. Credit is allowed for only FRE 102 or 111.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisite: FRE 101; May not sign up for FRE 102 if received a C or better in FRE 111,201,202,205,311,312,321,322,411,or 412
FRE	107	French for International Professions I	Accelerated alternative to FRE 101 and 102 or FRE 111. Functional approach. Emphasizes communicative competence for international professions. Credit is allowed for only FRE 107 or 111. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.		
FRE	111	Fundamentals of French	Primarily for students with two years of high school French who need review to enter second year study. Credit is allowed for only FRE 111 or 101 or 102 or 107. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students may not sign up for FRE 111 if they have received a C or better in FRE 101,102,201,202,205,311,312,321,322,411,412
FRE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
FRE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	201	Intermediate French I	Grammar review, with emphasis on development of skills of speaking, reading, writing, and listening comprehension. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Student may not enroll in FRE 201 if received a C or better in: FRE202,205,311,312,321,322,411,412
FRE	202	Intermediate French II	Continuation of grammar review with emphasis on development of skills in speaking, reading, writing, and listening comprehension. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Students may not sign up for FRE 202 if they have received a C or better in FRE205,311,312,321,322,411,412
FRE	205	Readings in French Literature	Designed to teach reading with facility and comprehension. Vocabulary building and textual analysis of literary genres are major elements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisite: FRE 202; Students who have received a C or better in FRE 321 or 322, may not enroll in FRE 205
FRE	207	French for Business	Alternative to FRE 202. Functional approach. Emphasizes communicative competence for international professions. Not open to students with credit in FRE 202. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.	G	
FRE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	311	French Conversation	Further practice in speaking French, emphasizing current usage and promoting facility in the expression of ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not enroll in FRE 311, if they have received a C or better in FRE 411.
FRE	312	French Composition	Further practice in writing French, emphasizing current usage and promoting facility in the expression of ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not enroll in FRE 312, if they have received a C or better in FRE 412
FRE	315	French Phonetics	Practice and theory of French pronunciation. Emphasizes standard French, although an overview of regional varieties is offered.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 311 with a grade of D or better, or currently enrolled
FRE	319	Business French	Introduces the structure, vocabulary, and practices of the French business world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 312 with a grade of D or better or currently enrolled
FRE	321	French Literature	Representative masterpieces and significant movements of French literature of the Middle Ages through the 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & H	Pre-requisites:FRE 205, 312 with a grade of D or better or currently enrolled
FRE	322	French Literature	Literature of the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:Completed FRE 205 & 312 with a grade of D or greater, or be currently enrolled
FRE	325	Introduction to French Film	Studies French artistic contribution from 1895 to present, with emphasis on recent films starting with the New Wave.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	411	Advanced Spoken French	Improvement of spoken French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 311 with a grade of D or currently enrolled & 6 hours of 300-level French
FRE	412	Advanced Written French	Improvement of composition skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 312; 6 hours of 300-level French
FRE	415	French Civilization I	Political, intellectual, social, economic, and artistic development of France from its origins to the end of the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:6 hours of upper-division French
FRE	416	French Civilization II	Political, intellectual, social, economic, and artistic development of France from the 18th century to present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	pre-requisites:6 hours of upper-division French
FRE	421	Structure of French	Phonology, morphology, syntax, semantics, and varieties of French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 311 & 312 with a grade of D or better, or currently enrolled
FRE	422	Applied French Linguistics	Applies linguistic theory and second-language acquisition theory to teaching of French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ASB 480, ENG 213 or SLC 400
FRE	423	French Syntax	Analyzes French syntactic structure by contemporary theoretical models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ASB 480, or ENG 213, or SLC 400 with a D or better or currently enrolled
FRE	432	Gay Identities in Modern French Literature	Examines the representation of homosexuals as well as the emergence of homosexuality as a theme in modern French literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses

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FRE	441	French Literature of the 17th Century	From 1600 to 1660.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	442	French Literature of the 17th Century	From 1660 to 1700.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	445	French Literature of the 18th Century	Contributions of the philosophers and the development of the novel and drama.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	451	French Poetry of the 19th Century	From Romanticism to Parnassian poetry to Symbolism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	452	French Novel of the 19th Century	From Constant, Hugo, Balzac, Stendhal, and Sand to Flaubert and Zola, with emphasis on major literary movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	453	Theater of the 19th Century	From Romantic drama to the Symbolist Theater. Representative plays of Hugo, Musset, Vigny, Dumas, Becque, Rostand, Feydeau, and Mirbeau.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	461	Modern Narrative	Representative authors from Gide to the new Nouveau Roman.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	462	Modern Poetry	Representative authors from Mallarme to Bonnefoy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	471	The Literature of Francophone Africa and the Caribbean	Selected prose, poetry, and drama of black authors from Africa and the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	472	Franco-Canadian Civilization	Study of the civilization of Quebec in particular through its history, language, literature, music, and customs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:9 hours of 300-level French courses with a grade of D or better
FRE	480	Translation Theory and Practice	Theoretical and practical approaches to the fundamentals of meaning-based translation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 412 with a grade of D or currently enrolled
FRE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	485	Literary Translation	Theory and practice of literary translation with emphasis on application through individual translation project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 480 with a grade of D, or currently enrolled
FRE	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
FRE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
FRE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
FRE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
FRE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	510	Introduction to Textual Analysis	Introduces various oral and written techniques aimed at explicating literary texts. Required of all French graduate students focusing on literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	521	History of the French Language	Principal phonological, morphological, and semantic developments of French from Latin to present, with emphasis on Old and Middle French. Some familiarity with Latin is recommended.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	531	Medieval French Literature	Readings in the epics, early drama, Roman courtois, and other representative literary genres of the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	535	Identity, Gender, and Society in Early Modern French Literature	Readings in French Renaissance literature with special focus on Rabelais, Montaigne, Marguerite de Navarre.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	585	Literary Translation	Theory and practice of literary translation with emphasis on application through individual translation project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FRE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
FRE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	790	Reading And Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
FSA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	502	Managing Change in the Fire Service	Dynamics of organizational change and the effect change has on the delivery of fire services to the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	503	Fire Service and the Community	Theoretical concepts of public service to build an understanding of how the fire service fits within the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	510	Fire Department Budgeting and Finance	Functions of budgeting and finance in fire departments within the context of the public sector.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	522	Leadership in the Fire Service	Leadership theories analyzed in a variety of contexts within public and private organizations, then applied to the leadership challenges in the fire service.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	530	Public Policy in the Fire Service	Public policy and the fire services' role in the making of public policy in the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	540	Applied Research Methods in the Fire Service	Research methods applicable to problems that arise in the fire service, including assessments of programs and customer service research.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	550	Fire Service Program Management	Functions of developing and managing fire service programs. Designed for advanced students of fire service administration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	551	Fire Prevention and Public Fire Education	Managing fire prevention organizations and administering fire prevention programs in a contemporary society.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	552	Emergency Medical Services Administration	Complex issues of administering an Emergency Medical Services (EMS) division in a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	553	Special Operations in the Fire Service	Focuses on the variety of special emergency services operations provided by contemporary fire departments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	554	Emergency Fire Operations Administration	Delivery of emergency services to a community by a contemporary fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
FSA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FSA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSE	105	College Adjustment and Survival	Explores career goals and majors. Emphasizes organization and development of study skills, including time management, stress management, and use of the library.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		Pre-requisites: Freshman or Sophomore in the Ira A. Fulton School of Engineering
FSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	200	Elements of Engineering Design	Advanced version of introduction to engineering for students who have not taken an introduction to engineering course. Credit is allowed for only FSE 200 or various program introduction to engineering courses.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisites: A grade of C or better in PHY 121 or currently enrolled AND a grade of C or better in MAT 265 or 270.
FSE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	301	Entrepreneurship for Engineers	Overview of entrepreneurship, with emphasis on principles suitable for undergraduate engineering students.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisites: School of Engineering BS or BSE student; Minimum Junior standing
FSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		Pre-requisite: Engineering or Construction BS or BSE student
FSE	399	Cooperative Work Experience	Work periods with industrial firms or government agencies alternated with full-time course work. Not open to students from other colleges.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	400	Creating and Launching a Technology Venture	Focuses on creative and logical processes involved in developing a business idea and investigating its market feasibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	401	Intellectual Property for Technology Ventures	Provides basic understanding of legal issues likely to be encountered in a technology venture; practical approaches and solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	402	Operating a Technology Venture	Managing and leading technology ventures. Principles of organizing, planning, controlling, and leading.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	403	Entrepreneurship Practicum	Places students pursuing a Certificate in Technology Entrepreneurship with a practicing entrepreneur to learn about venture development.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6	L	Pre-requisites: Must be an Honors student
FSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	497	Honors Colloquium		Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-7		
FSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		
FSE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	501	Technology Entrepreneurship	Fundamental principles and concepts of technology entrepreneurship.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
FSE	502	Strategic Enterprise Innovation	Strategies, techniques, and practices of process, product, and management innovation across the enterprise.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	503	Collaborative Innovation Management	Techniques and practices of collaboration innovation, including an indepth look at managing outsourcing relationships and "wikinomics."	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	504	Corporate Venturing and Intrapreneurship	Explores how companies can create intrapreneurial cultures that lead to greater levels of corporate venturing and long-term competitiveness.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		

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FSE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	590	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	594	Conf and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		Pre-requisite: School of Engineering Graduate student
FSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	690	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		

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FSE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	790	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-15		
FSE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-15		
FSM	304	Fire Personnel Management	Promotion, personnel development, career and incentive systems, validation of physical requirements, managerial and supervisory procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	305	Quality Emergency Services	Covers quality issues relating to services delivered by progressive fire departments. Covers management of personnel and resources during organizational change.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	306	Fire Prevention Organization and Management	Examines and evaluates the techniques, procedures, programs, and agencies involved in preventing fires.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	307	Fire Department Safety Organization and Management	Focuses on the management of fire department safety programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	2.		
FSM	308	Fire Department Budgeting	Examines the role of fire department budgets and their relationship to other levels of government as a planning tool.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	309	Emergency Medical Service Organization and Management	Focuses on the administration and management of emergency medical services delivered by a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	363	Computer Applications in Emergency Management	Explores specific computer programs that are currently in use for contingency planning, tracking chemical inventories, and response resources.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
FSM	400	Human Behavior and the Fire Threat	Proper ways of conducting post-fire interviews; emphasizes the psychological effects of communications during emergencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	401	Labor Relations in the Fire Service	Examines the relationships between management and unions using the Relations by Objectives model.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	404	Program Management and Accreditation	Examines the relationships between management and unions using the Relations by Objectives model.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	405	Fire Service Leadership	Focuses on developing personal and organizational leadership qualities required to be successful in the fire service.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	421	Political and Legal Consideration in Fire Science	Study of legal and political considerations that affect the decision making of fire service managers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	425	Fire Service Administration	Presents modern management and planning techniques that apply to organizing a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	460	Incident Management Systems and Emergency Operations Center	Covers IMS, terminology, players, and management philosophy. EOC setup, activation, operation, and termination. EOC funding and politics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	493	Honors Thesis	Capstone applied project. Applies knowledge learned from FSM course work to solve a practical fire service problem.	N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-6	L	Pre-requisites: Must be an Honors student
FSM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
FSM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
GB	305	Business Law		N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GB	305	Business Law		N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	3.		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	SB & G	
GCU	141	Introduction to Economic Geography	Production, distribution, and consumption of various types of commodities of the world and relationships to the activities of humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GCU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	200	Orientation to Geography	Basic introduction to the Department of Geography faculty, undergraduate graduation requirements, and possible jobs and skills in geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(HU or SB) & G	
GCU	253	Introduction to Cultural and Historical Geography	Cultural patterns, including such phenomena as language, religion, and various aspects of material culture. Origins and diffusion and division of the world into cultural areas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	322	Geography of U.S. and Canada	Spatial distribution of relevant physical, economic, and cultural phenomena in the United States and Canada.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	323	Geography of Latin America	Spatial distribution of relevant physical, economic, and cultural phenomena in South, Middle, and Caribbean America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	325	Geography of Europe	Broad and systematic overview of Europe, emphasizing physical, economic, and cultural phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	326	Geography of Asia	Spatial distribution of relevant physical, economic, and cultural phenomena in Asia, excluding the former Soviet Union.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	327	Geography of Africa	Spatial distribution of relevant physical, economic, and cultural phenomena in Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	328	Geography of Middle East and North Africa	Spatial distribution of relevant physical, economic, and cultural phenomena in the Middle East and North Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	332	Geography of Australia and Oceania	Spatial distribution of relevant physical, economic, and cultural phenomena in Australia, New Zealand, and Pacific Islands.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	344	Geography of Hispanic Americans	Examines the homelands, migrations, settlements, landscapes, roles, and selected cultural traditions of Hispanic Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	350	The Geography of World Crises	Contemporary world crises viewed from a perspective of geographic concepts and techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	351	Population Geography	Demographic patterns; spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	352	Political Geography	Relationship between the sociophysical environment and the state.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	357	Social Geography	Environmental perception of individuals and groups. Stresses the spatial aspect of social and physical environments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	359	Cities of the World I	Historical evolution of urban patterns and structures in the Middle East, India, Southeast Asia, China, Japan, and Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G & H	

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GCU	360	Cities of the World II	Historical evolution of urban patterns and structures in Latin America, North America, Sub-Saharan Africa, and Australasia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	361	Urban Geography	External spatial relations of cities, internal city structure, and spatial aspects of urban problems in various parts of the world, particularly in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	364	Energy in the Global Arena	Production, transportation, and consumption of energy, emphasizing the electric power industry and its environmental problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	414	Teaching Geography Standards	Introduces Arizona Geography Standards for K-12 educators, emphasizing exciting curricula and illustrated with best practices by master teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	421	Geography of Arizona and Southwestern United States	Geography of the Southwest with an emphasis on Arizona. Divided into physical geography, history, people, and economy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	423	Geography of South America		N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	424	Geography of Mexico and Middle America	Central America and Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	425	Geography of the Mexican American Borderland	Geography of a binational and bicultural region. Examines settlement, boundary issues, ethnic subregions, population change, industrial development, and urban growth. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(L or SB) & G	
GCU	426	Geography of Russia and Surroundings	Examines the geography of Russia and other post-Soviet states.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	432	Geography of China	Examines the physical, economic, cultural, social, demographic, agricultural, political, historical, and environmental aspects of the geography of China.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	433	Geography of Southeast Asia	Examines the biophysical and social features of Southeast Asian nations and peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	441	Economic Geography	Spatial distribution of primary, secondary, and tertiary economic and production activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	442	Geographical Analysis of Transportation	Networks, modes, economics, and flows at the urban, national, and international scales. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	444	Geographic Studies in Urban Transportation	Current urban transportation issues in metropolitan Phoenix. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	453	Recreational Geography	Examines problems surrounding the organization and use of space for recreation. Introduces geographic field survey methods of data collection and analysis.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	455	Historical Geography of U.S. and Canada	Geographical perspective on the evolution of the United States and Canada from pre-Columbian times to early 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & H	
GCU	474	Public Land Policy	Geographic aspects of federal public lands, policy, management, and issues. Emphasizes western wilderness and resource development problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GCU	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
GCU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		

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GCU	495	Quantitative Methods in Geography	Statistical techniques applied to the analysis of spatial distributions and relationships. Introduces models and theory in geography. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	Pre-requisites: MAT 119, 170, 210 or 270
GCU	496	Geographic Research Methods	Scientific techniques used in geographic research. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	Pre-requisites: Must have completed the following courses with a grade of C or greater or be currently enrolled: GPH 371 and GPH 491 and GCU 495
GCU	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GCU	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
GCU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GCU	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	514	Human Dimensions of Sustainability	Concepts and definitions of the human dimensions of sustainability; the role of attitudes and values in shaping sustainability goals, practices, and programs; the diversity of values and socio-cultural contexts relating to sustainability; bottom-up and top-down sustainable policy development, social data collection methodologies. Seminar.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	515	Human Migration	Economic, political, social, and geographic factors underlying population movements. Migration selectivity, streams and counter-streams, labor migration, and migration decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	526	Spatial Land-Use Analysis	Determination, classification, and analysis of spatial variations in land-use patterns. Examines the processes affecting land-use change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	529	Contemporary Geographic Thought	Comparative evaluation of current philosophy concerning the nature and trends of geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	585	Advanced Research Methods in Geography	Specialized research techniques and methodologies in economic, political, or cultural geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

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GCU	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	596	History of Geographic Thought	Historical development of geographic thought from pre-Greek days to the early 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	671	Introduction to Geographic Teaching	Intensive course in geographic education, scientific method in research on geographic education, research trends, resources for teaching, best practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	672	Physical Geography for Teachers	Transfer of matter and energy exhibited in the Earth's climate, hydrology, soils, biogeography, and landforms; case studies; virtual field trips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	673	Human Geography for Teachers	Analyzes cultural, economic, urban, historical, transportation, population, political, and development geography; case studies; virtual field trips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	674	Geographic Techniques for Teachers	Introduces geographic techniques, including GPS, GIS, remote sensing, cartography, qualitative, and field methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	675	World Geography for Teachers	Systematic overview of geographic knowledge about different world regions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	676	North American Geography for Teachers	Systematic overview of geographic knowledge about different North American regions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	677	Geography Across the Curriculum	Intensive course on intergrating reading, writing, and mathematics standards with geography content; selected case studies; best practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		

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GCU	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GCU	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SB & G	
GCU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	253	Introduction to Cultural and Historical Geography	Cultural patterns, including such phenomena as language, religion, and various aspects of material culture. Origins and diffusion and division of the world into cultural areas.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	351	Population Geography	Demographic patterns; spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: must have completed MAT 117, or 119, or 142, or 170, or 210, or be currently enrolled in one of these
GCU	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	357	Social Geography	Environmental perception of individuals and groups. Stresses the spatial aspect of social and physical environments.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
GCU	361	Urban Geography	External spatial relations of cities, internal city structure, and spatial aspects of urban problems in various parts of the world, particularly in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
GCU	373	Introduction to Geographic Information Science	Introduces theoretical and computer-based aspects of Geographic Information Systems, involving data analysis and map generation. fee	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SG	Pre-requisite: PSY 230 or SBS 304
GCU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GCU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
GCU	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
GCU	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SB & G	
GER	101	Elementary German	Reading, writing, speaking, and understanding of basic German, with emphasis on pronunciation and grammar. Credit is allowed for only GER 101 or 111. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	102	Elementary German	See GER 101. Credit is allowed for only GER 102 or 111. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	111	Fundamentals of German	Primarily for students with two years of high school German who need review to enter second-year study. Credit is allowed for only GER 111 or both GER 101 and 102. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
GER	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	201	Intermediate German	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
GER	202	Intermediate German	See GER 201. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
GER	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	311	German Conversation	Expansion of idiom through oral practice dealing with contemporary articles, essays, and stories. 3 semester hours limit for majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	312	German Conversation	See GER 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	313	German Composition	Intensive practice in writing, emphasizing style and grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	319	Business Correspondence and Communication	Organization and presentation of clear, effective business communications; vocabulary applicable to modern business usage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	411	Advanced Grammar and Conversation	Improvement of diction and idiom through intensive oral review.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	412	Advanced Grammar and Composition	Improvement of writing ability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:GER 313 with a grade of D or better or currently enrolled
GER	415	German Civilization	Aspects of political, social, and cultural life of the German-speaking world from the beginning through 1600.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisite: A 300-level German course
GER	416	German Civilization	From 1600 through 1945.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisite: A 300-level German course
GER	421	German Literature	From the beginning to Classicism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: 6 hours of 300-level German courses
GER	422	German Literature	From Romanticism to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: 6 hours of 300-level German courses
GER	453	German Literary Masterpieces on Film	Film and literature in their correlation to each other and to cultural, political, and social trends in German-speaking countries. Special arrangements for graduate students and those without a knowledge of German.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GER	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
GER	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
GER	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
GER	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
GER	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	521	History of German Language	Linguistic development of German from the earliest records to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	523	German Drama	Drama of the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	527	The Novelle	Special studies in the German short story.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
GER	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GIT	110	Technical Graphics	Representation of 2-D geometry in orthographic, axonometric and oblique projection; detail, assembly, sectional, and auxiliary views; ANSI-standard lettering, size, and position symbols.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	135	Graphic Communications	Introduces the technologies involved in the design, image generation, transmission, and industrial production of multiple images for consumer utilization.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		

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GIT	210	Creative Thinking and Design Visualization	Fundamental methods, concepts, and techniques of creative thinking, design visualization, and problem solving. Also includes communication, cultural, and societal influences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	212	Computer-Aided Design and Drafting (CADD)	CADD for product design, representation, and documentation; includes projection theory, descriptive geometry, graphics analysis, drafting standards, and precision dimensioning techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	CS	
GIT	215	Introduction to Graphics Programming	Introduces analyzing, planning, and executing graphic programs using industry-standard programming tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	230	Digital Illustration in Publishing	Raster and vector illustration in publishing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	237	Web Content Design	Introduces design principles for visual content on the World Wide Web; raster, vector, fonts, portable documents, color palettes, file formats.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	301	Web Site Development for Nonmajors	Focuses on the basic skills necessary to successfully design or maintain a Web site; geared toward non-GIT majors.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	303	Digital Publishing	Introduces software and hardware used for digital publishing and infographics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	312	3-D Computer Graphics Modeling and Representation	3-D solid modeling applications: concepts, techniques, data structures, modeling strategies, assemblies, geometric representation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	CS	
GIT	313	Technical Illustration and Photorealistic Rendering	Computer-generated graphics for technical illustration and design presentation: axonometric and perspective drawing; shading, shadowing, materials and textures; photorealistic rendering for PostScript output.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	314	Multimedia Design, Planning and Storyboards	Creative and conceptual process of content selection, planning, designing, flowcharting, storyboarding, proposing, configuring, prototyping, and presenting multimedia projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	333	Printing Technology	Theory and application of sheet and web press technology for offset-lithography, flexography, screen process, and digital printing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	334	Image Capture and Manipulation	Theory and application of image capture techniques used for all copy formats and conversion processes required for reproduction or dissemination.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	335	Computer Systems Technology	Surveys computer-based technology covering hardware, software, storage, networking, Internet, telecommunications, and information systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	337	Web Content Design	Introduces design principles for visual content on the World Wide Web; raster, vector, fonts, portable documents, color palettes, file formats.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	352	Technical Presentations	Technologies for planning, creating, and delivering individual and group presentations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	384	Commercial Digital Photography	Digital image, conversion, and output in a commercial studio emphasizing publishing workflow.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	411	Computer Animation	2-D and 3-D computer animation methods: project planning, scripting, storyboards, advanced modeling, lighting, materials mapping, and motion.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	412	Multimedia Authoring, Scripting and Production	Production of multimedia projects using industry-standard authoring applications: project management, client considerations, and project documentation; user interface design, interactivity, media, and databases.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	413	Professional Portfolio Design and Presentation	Digital media portfolio design and production: planning, audience analysis, media selection, authoring, media formats, production, copyright considerations, marketing, and delivery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	414	Web Site Design and Internet/Web Technologies	Web site design, authoring, standards, protocols, tools, and development techniques for commercial client-sided Web-based graphic information systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	415	Computer Graphics: Business Planning and Management	Implementation planning: feasibility and application studies; needs assessment and operational analysis techniques; organization, managerial, and technology considerations; business plan development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	417	Advanced Internet Programming	Uses industry-standard programming languages and techniques to create interactive graphic information Web sites and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	432	Graphic Industry Business Practices	Business practices related to press/prepress/Web industries; trade customs, cost analysis, marketing and management approaches.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	435	Web Management and E-Commerce	Internet Web site management, security, online databases, and new e-commerce business models.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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GIT	436	Gravure Technology	In-depth study of the market profile and production sequences related to the gravure method of printing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	437	Color Reproduction Systems	Scientific analysis for the engineering of color reproduction systems and color models used in the graphics industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	441	Graphic Information Systems	Graphic information systems common to the workplace: graphic user interfaces for online databases, geographic, industrial, architectural, and management applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	450	Digital Workflow in Graphic Industries	Analyzes digital production systems for input, assembly, and output of graphic information to print and Web, including networking and job tracking.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
GIT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		
GIT	537	Current Issues in Quality Assurance	Directed group study of selected issues relating to quality assurance in the printing, publishing, and information industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	538	Personnel Development for the Graphics Industry	Employee training and development specific to production and management in the graphics industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	540	Cross-Media Design Solutions	Examines universal design theory, creative problem solving, and case study applications for print and new media products of the graphics industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	541	Graphic Information Systems	Graphic information systems common to the workplace; graphic user interfaces for online databases, geographic, industrial, architectural, and management applications.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	542	Information Design and Usability	A hybrid of design and technology solutions focusing on how information is organized graphically to communicate, and how usability engineering is applied to human factors.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
GIT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GLB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	301	Business in the Global Environment	Discusses multinational corporate strategy, structure, operations, and the social and economic factors affecting global business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.	G	Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status.
GLB	302	Culture and Diversity Management	Develops an understanding of culture (individual, organizational, national, subcultural, transnational, and global) and change and interaction applied to management decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3-4		Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status
GLB	303	Relationship Management	Overviews types of relationships found in organizations, then trains students in the interpersonal skills necessary to effectively manage those relationships.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status
GLB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	401	Global Business Integration	Provides an integrative framework for global corporate strategic analysis and opportunities for integrated decision making in actual and simulated businesses.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: Global Mgt student with professional status; Minimum 87 hours; OPM 301 and (FIN 300 or 301) with C or better; MKT 300 or 301 with C or better; GLB 303, HRM 410 or MGT 301 with C or better
GLB	411	Global Competitiveness	Discusses factors contributing to international competitive success of nation-states, national industries, and specific firms. Includes detailed analysis of actual firms.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.		Pre-requisites: School of Global Management and Leadership International Studies student with Professional or Conditional status; GLB 301 with C or better
GLB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
GLB	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1-6		
GLB	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
GLB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		Pre-requisite: School of Global Management and Leadership International Studies student with Professional or Conditional status

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GLG	101	Introduction to Geology I (Physical)	Basic principles of geology, geochemistry, and geophysics. Rocks, minerals, weathering, earthquakes, mountain building, volcanoes, water, and glaciers. Students must complete both GLG 101 and GLG 103 to receive an SQ (general studies).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ & G	
GLG	102	Introduction to Geology II (Historical)	Basic principles of applied geology and the use of these principles in the interpretation of geologic history. fee. Both GLG 102 and 104 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SG & H	
GLG	103	Introduction to Geology I-Laboratory	3 hours lab, some field trips. Fee. Both GLG 101 and 103 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	
GLG	104	Introduction to Geology II-Laboratory	Lab techniques involving map interpretation, cross sections, and fossils. Both GLG 102 and 104 must be taken to secure SG general Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SG	
GLG	105	Introduction to Planetary Science	Solar system objects and their geologic evolution, surfaces, interiors, and atmospheres; weekly lab for data analysis and experiments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	4.	SG	
GLG	110	Geologic Disasters and the Environment	Geological studies as they apply to interactions between humans and Earth. Includes geological processes and hazards, resources, and global change. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SG & G	
GLG	111	Geologic Disasters Laboratory	Basic geological processes and concepts. Emphasizes geology-related environmental problems concerning Arizona. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SG	
GLG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GLG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	300	Geology of Arizona	Basic and historical geology, fossils, mining, energy resources, environmental problems, landscape development, and meteorites, cast in examples from Arizona. Not open to Geology majors with credit in GLG 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	304	Geology of the Grand Canyon	Reviews the discovery, history, origin, and geology of the Grand Canyon of the Colorado River in Arizona. 6-day field trip down the river (first 6 days after commencement in May) required at student's expense. Requires field research and term paper on trip.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2.		
GLG	310	Structural Geology	Geologic structures and the mechanical processes involved in their formation. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: Must have completed GLG 101 AND either MAT 270 or MAT 290 with a grade of D or greater
GLG	321	Mineralogy	Crystal chemistry, crystallography, mineral identification, origin and occurrence of minerals, systematic mineralogy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3-4		Pre-requisites: CHM 113 and (MAT 270 or MAT 290); Pre/Co-requisite: CHM 116
GLG	325	Oceanography	Introduces marine geology, chemistry, and physical and biological oceanography. Methods of oceanic exploration, environmental and social aspects of oceans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: CHM 101 or CHM 113 with C or better; BIO 100, BIO 182 or GLG 101 with C or better; Credit is allowed for only BIO or GLG 325
GLG	362	Geomorphology	Land forms and processes that create and modify them. Lab and field study of physiographic features.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	400	Geology Colloquium	Presentation of recent research by faculty and guests. Written assignments required. 1 semester hour required for Geological Sciences majors; may be repeated for a total of 2 semester hours.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in geological sciences. Requires weekly reflective reading and writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	C	
GLG	404	Fundamentals of Planetary Geology	Surveys planetary topics, including impacts, tectonics, and volcanism on planetary objects, and use of spacecraft data, including geological mapping.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	405	Geology of the Moon	Current theories of the origin and evolution of the moon through photogeological analyses and consideration of geochemical and geophysical constraints. Possible field trips to examine Arizona geology. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	406	Geology of Mars	Geological evolution of Mars through analyses of spacecraft data, theoretical modeling, and study of terrestrial analogs; emphasizes current work. Possible field trips to examine Arizona geology. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	410	Computers in Geology	Geological computer skills including data processing, visualization, presentation, numerical analysis, software and hardware applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	CS	
GLG	412	Geotectonics	Earthquakes, Earth's interior, formation of oceanic and continental crust, and plate tectonics. Emphasizes current work.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		

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GLG	416	Field Geophysics	Methods of applied geophysical exploration; seismic refraction, gravity, electrical resistivity, geomagnetics. Includes survey planning, data acquisition, processing, analysis, and interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	418	Geophysics	Solid earth geophysics; geomagnetism, gravity, seismology, heat flow. Emphasizes crust and upper mantle.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	419	Geodynamics	Emphasizes application of continuum principles to geological problems, including lithospheric stresses, heat transfer, fluid mechanics, and rock rheology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	420	Volcanology	Distribution of past and present volcanism, types of volcanic activity, mechanism of eruption, form and structure of volcanoes, and geochemistry of volcanic activity. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	424	Petrology	Origin of igneous and metamorphic rocks. Optical mineralogy, hand specimen identification, and thin-section analysis. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	430	Paleontology	Introduces concepts and analytical techniques in biogeology, paleobiology, paleoecology, and paleoenvironmental reconstruction from the fossil record. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	435	Sedimentology	Origin, transport, deposition, and diagenesis of sediments and sedimentary rocks. Physical analysis, hand specimen examination, and interpretation of rocks and sediments. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: Must have completed GLG 102 and GLG 321 with a grade of C or greater
GLG	441	Ore Deposits	Origin, occurrence, structure, and mineralogy of ore deposits. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	451	Field Geology I	Geological mapping techniques using topographic maps and aerial photos. Intensive field-based instruction. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	L	Pre-requisites: GLG 310 with C or better; Pre/Co-requisite: GLG 321
GLG	452	Field Geology II	Continuation of GLG 451. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	L	Pre-requisites: GLG 451 and GLG 321 with C or better; MAT 270 or MAT 290 with C or better
GLG	455	Advanced Field Geology	Geologic mapping in igneous, sedimentary, and metamorphic terrains of the Basin and Range province of Arizona. May be repeated for credit. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3-4		
GLG	456	Cordilleran Regional Geology	Systematic coverage through space and time of the geological development of western North America, emphasizing the western United States. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	461	Geomicrobiology	Past and present interactions among microbial life, geological materials, and biogeochemical cycles involving carbon, sulfur, phosphate, nitrogen, and minerals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	470	Hydrogeology	Geology of groundwater occurrence, aquifer and well hydraulics, water chemistry and quality, contaminant transport, remediation. Emphasizes quantitative methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	481	Geochemistry	Origin and distribution of the chemical elements. Geochemical cycles operating in the Earth's atmosphere, hydrosphere, and lithosphere.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	485	Meteorites and Cosmochemistry	Chemistry of meteorites and their relationship to the origin of the Earth, solar system, and universe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	490	Topics in Geology	Special topics in a range of fields in geology. Fee.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
GLG	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
GLG	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6	L	Pre-requisites: Must be an Honors student
GLG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	495	Undergraduate Thesis	Guided research culminating in the completion and presentation of an undergraduate thesis based on supervised research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
GLG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-7		
GLG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
GLG	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	501	Geology of Arizona	Basic and historical geology, fossils, mining, energy resources, environmental problems, landscape development, and meteorites, cast in examples from Arizona. Research paper required.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		

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GLG	504	Geology of the Grand Canyon	Reviews the discovery, history, origin, and geology of the Grand Canyon of the Colorado River in Arizona. 6-day field trip down the river (first 6 days after commencement in May) required at student's expense. Requires field research and term paper on trip.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2.		
GLG	510	Advanced Structural Geology	Mechanics of rock deformation, emphasizing relationship among field observation, theory, and experiment. Stress, strain, simple constitutive relationships, failure criteria, and the basis of continuum methods. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	520	Advanced Physical Volcanology	Selected volcanologic topics, including explosive eruption processes, lava flow mechanics, and intrusive mechanisms. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2-3		
GLG	547	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		You may not enroll in GLG 547 if you have credit in BIO 515, or PAF 547, or SOS 516
GLG	581	Isotope Geochemistry	Geochemistry and cosmochemistry of stable and radioactive isotopes; geochronology; isotope equilibria.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	582	Physical Geochemistry	Applies thermodynamic and kinetic principles to geochemical processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		

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GLG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
GLG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
GLG	101	Introduction to Geology I (Physical)	Basic principles of geology, geochemistry, and geophysics. Rocks, minerals, weathering, earthquakes, mountain building, volcanoes, water, and glaciers. Students must complete both GLG 101 and GLG 103 to receive an SQ (general studies).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ & G	
GLG	103	Introduction to Geology I-Laboratory	3 hours lab, some field trips. Fee. Both GLG 101 and 103 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	
GLG	110	Geologic Disasters and the Environment	Geological studies as they apply to interactions between humans and Earth. Includes geological processes and hazards, resources, and global change. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SG & G	
GLG	111-W	Geologic Disasters/Environ Lab	Basic geological processes and concepts. Emphasizes geology-related environmental problems concerning Arizona. Case histories and field studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SG	
GPH	111	Introduction to Physical Geography	Spatial and functional relationships among climates, landforms, soils, water, and plants. Credit is allowed for only GPH 111 or 411. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	SQ	
GPH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GPH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	200	Orientation to Geography	Basic introduction to the Department of Geography faculty, undergraduate graduation requirements, and possible jobs and skills in geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	210	Society and Environment	Examines the interaction among social processes, key environmental issues, and nature's role as a resource at global and regional scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	211	Landform Processes	Laboratory science class on earth-surface processes, with exercises emphasizing how erosion, transportation, and deposition modifies landforms. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	L or SQ	
GPH	212	Introduction to Meteorology	Fundamentals of weather and climate, including basic atmospheric processes and elements. Students whose curricula require a lab course must also register for GPH 214. Both GPH 212 and 214 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SQ	
GPH	213	Introduction to Climatology	Fundamentals of meteorological/climatological analysis, including terminology and symbology. Recommended for meteorology/climatology program students. Both GPH 213 and GPH 215 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SG	
GPH	214	Introduction to Meteorology Laboratory	Introduces basic meteorological/climatological data and measurements. Suggested concurrent enrollment in GPH 212. Both GPH 212 and 214 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.	SQ	
GPH	215	Introduction to Climatology Laboratory	Fundamentals of meteorological/climatological map analysis and interpretation. Recommended for meteorology/climatology program students. May be taken concurrently with GPH 213. Both GPH 213 and GPH 215 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.	SG	

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GPH	271	Maps and Map Reading	Map types, uses, limitations, and evolution. Communication via paper and digital medium. Navigation, interpretation, projections, sources, symbols, classification, case, handling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	314	Global Change	Response of Earth's natural systems (atmosphere, hydrosphere, lithosphere, biosphere) to past environmental change, and effects of potential future changes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & G	
GPH	370	Geographic Information Technologies	Introduces modern geographic information technologies, including cartography, GIS, remote sensing, global positioning systems, and statistical analyses. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	371	Introduction to Cartography and Georepresentation	Study and creation of maps. Fundamental mapping principles (projection, scale, generalization, symbolization) and computer-based cartographic production. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	372	Air Photo Interpretation	Subset, remote sensing, includes photography, films, aerial geometry, image components, stereoscopy, photogrammetry, ground truthing; interpret physical, cultural, economic, intelligence information.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	373	Geographic Information Science I	History and basic aspects of GIS including map and data file structure, conversions, and synthesis with a computerized environment. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	CS	Pre-requisite: GPH 370 with C or better
GPH	381	Geography of Natural Resources	Nature and distribution of natural resources and the problems and principles associated with their use.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	401	Topics in Physical Geography	Open to students qualified to pursue independent studies.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GPH	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in discipline. Requires weekly reflective reading and writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	C	
GPH	405	Energy and Environment	Sources, regulatory and technical controls, distribution, and consequences of the supply and human use of energy. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	409	Synoptic Meteorology I	Diagnostic techniques and synoptic forecasting. Includes techniques of weather analysis, map interpretation, and satellite and radar analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GPH	410	Synoptic Meteorology II	Diagnostic techniques and synoptic forecasting. Includes techniques of weather analysis, map interpretation, and satellite and radar analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GPH	411	Physical Geography	Introduces physiography and the physical elements of the environment. Credit is allowed for only GPH 411 or 111.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	412	Physical Climatology	Physical processes in the earth-atmosphere system on regional and global scales; concepts and analysis of energy, momentum, and mass balances.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	413	Meteorological Instruments and Measurement	Design and operation of ground-base and aerological weather measurement systems. Collection, reduction, storage, retrieval, and analysis of data.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	414	Climate Change	Surveys three climate research areas: paleoclimatology, theories (e.g., greenhouse warming), numerical modeling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	418	Landforms of the Western United States	Studies landforms and geomorphic processes in the western United States, including lecture, topographical maps, aerial photographs, satellite imagery, and field trips. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	
GPH	422	Plant Geography	Plant communities of the world and their interpretation, emphasizing North American plant associations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: GPH 111 or BIO 187 (or both PLB 200 and PLB 201) with C or better; Credit is allowed for only GPH or PLB 422
GPH	433	Alpine and Arctic Environments	Regional study of advantages and limitations of the natural environment upon present and future problems involving resource distribution, human activities, and regional and interregional adjustments.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	471	Geographics: Interactive and Animated Cartography and Geovisualization	Advanced cartography, stressing influence and application of the computer on geographic representation. Emphasizes creation of maps for the Internet. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	

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GPH	473	Geographic Information Science II	GIS as a basis for microcomputer spatial analysis and synthesis. Includes digitizing, database organization, spatial retrieval, and graphics. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	Pre-requisites: Must have completed both GPH 373 and CSE 100 with a grade of C or greater or be currently enrolled
GPH	474	Dynamic Meteorology I	Large-scale atmospheric motion, kinematics, Newton's laws, wind equation, baroclinics, vorticity, and the midlatitude depression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	475	Dynamic Meteorology II	Topics in climate dynamics. General circulation, numerical modeling, teleconnection phenomena, and surface-atmosphere interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	481	Environmental Geography	Problems of environmental quality, including uses of spatial analysis, research design, and fieldwork in urban and rural systems.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	483	Geographic Information Analysis	Basics of spatial data analysis. Topics include point pattern analysis, spatial autocorrelation, spatial regression, and kriging. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	491	Geographic Field Methods	Field techniques, including use of aerial photos, large-scale maps, and fractional code system of mapping; urban and rural field analysis to be done off campus. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GPH	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
GPH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GPH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
GPH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GPH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	511	Fluvial Processes	Geographical aspects of processes of river erosion, transportation, sedimentation: emphasizing spatial characteristics of forces, resistance, landforms, sediment; includes computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	533	Snow and Ice	Processes, distribution, climatic interactions of snow/ice emphasizing mass balance, snow stratigraphy/metamorphism and glacier/snowpack climatology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	535	Water Law and Planning	In-depth study of legal materials providing substantive knowledge of water law, water management issues, and land use planning options.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	573	Geographic Information Science III	In-depth look at programming within GIS. Focuses on programming and methodology, utilizing specific software, and basic scientific computing. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	575	Geographic Applications of Remote Sensing	Uses imaging and nonimaging methods of remote acquisition of data, including satellite sensors, airborne radar, multiband scanning, conventional photographic sensors, and ground-based equipment.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GPH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	596	Advanced Spatial Statistics	Multivariate and advanced statistical techniques including Box-Jenkins modeling and spectral analysis. Requires project papers and presentations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	601	Introduction to Geographic Information Systems	Introduces GIS theory and practice for professionals. Module 1 of the fall semester for MAS-GIS professional degree program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	602	Intermediate GIS	Intermediate GIS for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	603	Spatial Statistics and Modeling	Spatial statistics and modeling for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	604	Implementation in the Corporate and Public Sectors	Uses GIS in the corporate and public sectors. GIS ethics. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	605	GIS Project: Real-World GIS Project Planning and Implementation for Public Sector Agencies	GIS project development for the public sector. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	606	Gis Project Presentation	Mastering technical project presentation for GIS professionals. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	610	Programming the GIS Environment	Programming the GIS environment for the MAS-GIS program. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	620	Remote Sensing	Remote sensing for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	630	Air Photo Interpretation for MAS-GIS	Air photo interpretation for the MAS-GIS program. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	640	GIS for Business	Uses GIS in business for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	650	GIS for the Internet	GIS for the Internet.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GPH	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GPH	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GRA	101	Designing Life	Helps students develop strategies to successfully navigate their education experience. Focuses on critical and reflective thinking.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Students may not enroll in GRA 101 if they received a D or better in GRA 440. Must be a College of Design student
GRA	111	Graphic Design History I	Surveys development of visual communication from its origins to the 20th century. Investigates significant technological, industrial, and social influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GRA	112	Graphic Design History II	Surveys contemporary and 20th-century graphic design. Investigates relationships among graphic design and related disciplines, technological, industrial, and social influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 111 with C or better
GRA	121	Principles for Graphic Design I	Graphic design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design student; Co-requisite: GRA 111
GRA	122	Principles for Graphic Design II	Continued exploration of graphic design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 121 with a C or better; Co-requisite: GRA 112
GRA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	220	Design Drawing I	Drawing as language to explore and communicate ideas. Development of drawing aptitude as language and process for graphic design thinking.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 122 with C or better; Passed Milestone; Co-requisites: GRA 221; GRA 222
GRA	221	Letterform	Drawing of letterforms with focus on proportion and structure. Introduces letterform nomenclature and classifications. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA122 with C or better; Passed Milestone; Co-requisite: GRA 220; GRA 222
GRA	222	Visual Communication I	Theoretical and applied studies in shape, drawing, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA122 with C or better; Passed Milestone; Co-requisite: GRA 220; GRA 221
GRA	223	Typography	Theoretical exercises in spatial and textural qualities of type. Problems in tension, activation, and balance. Exercises in simple typographical applications. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 220 and GRA 221 with C or better; Co-requisite: GRA 224
GRA	224	Visual Communication II	Transition from theoretical to applied problems. Emphasizes refinement of visual skills. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 220 and GRA 222 with C or better; Co-requisite: GRA 223
GRA	225	Communication/Interaction Design Theory	Theory related to the design of communication artifacts and interaction within various media environments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
GRA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	321	Technology for Design I	Explores the process of technology in design. Projects interface with GRA 361.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design student; Co-requisite: GRA 361
GRA	322	Technology for Design II	Emphasizes advanced technology in design problems. Projects interface with GRA 362.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 321 with C or better; Co-requisite: GRA 362
GRA	345	Design Rhetoric	Develops critical thinking and expression of ideas in concise and persuasive written and spoken form.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	L	Pre-requisites: Graphic Design, Architecture, Interior Design, Industrial Design, Housing Community Development or Design Studies BA; ENG 102, 105 or 108 with C or better
GRA	361	Visual Communication III	Explores methodologies of strategic communication, development of visual systems, and information design ideation processes leading to applied projects in print and digital media. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 223 & 224 with C or better; Co-requisite: GRA 321
GRA	362	Visual Communication IV	Comprehensive studio projects with emphasis on production processes leading to multidisciplinary applied projects in print, 3-D space, and digital media. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 361 with C or better; Co-requisite: GRA 322
GRA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	401	Creative Environment	Explores and investigates theories of the psychology of space, psychology of people in space, and the psychology of objects as it pertains to creativity and the creative environment.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
GRA	421	Exhibit Design	Familiarization with the processes associated with the design of exhibits, especially visual communication in 3-D.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 362 with C or better; Co-requisites: GRA 422; GRA 461
GRA	422	Motion Graphics and Interaction Design	Discusses and explores theory related to the design of motion graphics and interaction through lectures and studio projects.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 322 with C or better; Co-requisites: GRA 421; GRA 461
GRA	423	Advanced Interaction Design	Advanced discussion and exploration of theory related to the design of interaction.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 422
GRA	424	Advanced Media	Advanced exploration of digital media for communication.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 422 with C or better
GRA	440	Finding Purpose	Career orientation in the creative professions, including value clarification, decision making, lifestyle planning, goal setting, and expression of individual talents.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Students may not enroll in GRA 440 if they received a D or better in GRA 101
GRA	461	Visual Communication V	Comprehensive studio projects with emphasis on design processes, including research, writing, critical thinking, practice, presentation, and analysis. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 362 with C or better; Co-requisites: GRA 421; GRA 422
GRA	462	Visual Communication VI	Comprehensive studio projects pursued in cooperation with a public organization or private enterprise. All projects culminate in an exhibit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 461 with C or better; Co-requisites: GRA 423; GRA 424
GRA	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
GRA	465	Collaborative Design Development II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
GRA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Graphic Design student; GRA 362 with C or better; Co-requisite: GRA 461
GRA	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
GRA	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
GRA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		

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GRA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
GRA	526	Visiting Designers	Series of workshops (three per semester) in which students work closely with professionals and scholars in design and related disciplines.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design or PhD in Environmental Design & Planning student
GRA	561	Methods in Visual Communication I	Introduces methodology in visual communication.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design or PhD in Environmental Design & Planning student
GRA	562	Methods in Visual Communication II	Advanced theories and methodologies in visual communication. Emphasizes visual search as the synthesis of theory and practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: DSC 561 with C or better
GRA	563	Thesis Document Design	Emphasizes the construction of the final thesis document as a visual communication object and/or medium.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design student
GRA	581	Internship in Teaching Design	Develop assignments, conduct critiques, structure dialogue, make presentations, and assist in the instruction of studio and lecture courses.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design student
GRA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
GRA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
GRD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
GRD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
GRD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
GRK	101	Elementary Ancient Greek	Ancient Greek grammar and vocabulary with an emphasis on developing reading skills. For beginning students only.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GRK	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GRK	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	201	Intermediate Ancient Greek	Continuation of GRK 101. Ancient Greek syntax and grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: GRK 101 with C or better

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GRK	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	301	Ancient Greek Literature I	Readings in ancient Greek prose; advanced grammar. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: GRK 201 with C or better
GRK	302	Ancient Greek Literature II	Continuation of GRK 301. Readings in ancient Greek poetry.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: GRK 301 with C or better
GRK	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
GRK	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
GRK	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
GTD	501	Global Technology and Development	Major theories of economic, political, and social development, with particular emphasis on the impact of current technologies and globalization.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	503	Technology and the International Political System	Historical development of international political system, with emphasis on role of technology.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	505	Research Design in Technology and Development	Emphasizes techniques of primary data collection, effective uses of secondary sources, for qualitative and quantitative applications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	506	Quantitative Analysis in Technology and Development	Uses correlation and regression-based multivariate statistical approaches in development studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre Requisites: Graduate or Non Degree seeking Graduate Students Only
GTD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	School of Letters & Sciences	School of Letters and Sciences	1.		
GTD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
GTD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	School of Letters & Sciences	School of Letters and Sciences	1-12		
HCR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HCR	210	Clinical Health Care Ethics	Healthcare ethics emphasizing analysis and ethical decision making at clinical and health policy levels for healthcare professionals.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisite: ENG 102,105 or 108
HCR	220	Introduction to Nursing and Healthcare Systems	Introduces the social, political, and economic contexts in which the nursing profession and healthcare systems in the United States evolved.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	H	
HCR	230	Culture and Health	Cultures of diverse groups and health/illness. Cross-cultural communication, awareness of own cultural influences, indigenous and alternative healing practices.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	C & G	
HCR	240	Human Pathophysiology	Chemical, biologic, biochemical, and psychological processes used in study of structural and functional alterations in health with selected therapeutics.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Undergraduate Nursing students; BIO 201, BIO 202, CHM 101, MIC 205 and MIC 206 with C or better
HCR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		

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HCR	550	Principles of Epidemiology for Healthcare	Introductory graduate-level course intended to provide students with fundamental epidemiology concepts and methods which can be applied to their field of interest.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	561	Responsible Conduct of Clinical Research	Introduces concepts and policies for the responsible conduct of research (RCOR), institutional review boards, and dissemination of findings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	562	Clinical Research Data Management and Technology Implementation	Orientation to database design and management, technology assessment methods, auditing procedures for continuous quality improvement (CQI), and cost-effectiveness analysis (CEA).	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	563	Clinical Research Management and Regulatory Affairs	Principles of clinical research management and regulatory affairs. Overview of national/international regulatory systems and agencies, and trends in conducting clinical research.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	564	Capstone Clinical Research Management Project	Culmination course integrating all components of CRM core courses demonstrating knowledge and competency in designing and managing clinical trials. Students must have documentation of unencumbered professional license in the state where the capstone project will be completed, if required.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: HCR 550, HCR 561 and HCR 562 with a C or better; Pre or Co-requisite: HCR 563 (with C or better if completed)
HCR	565	Clinical Research Operations	Development, implementation, and operations of FDA clinical research trials, including budgeting, contract negotiations, site evaluation, marketing, project management, and reporting.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	569	Applied Principles of Data Management & Inferential Statistics in Healthcare Research	Applied principles of data management and inferential statistics in epidemiological, psychosocial, medical, nursing, and healthcare research. Seminar. Prerequisites: DNP 679; HCR 572; NUR 609; admission to Clinical Research Management Certificate(NUCRGRCC) or master's program (NUCRMMS), any graduate nursing program.	N	SEM	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Clinical Research Management Certificate or Master's program or any graduate Nursing program; NUR 609, DNP 679 and HCR 572 with D or better
HCR	570	Introduction to International Health Systems, Professions, and Research	Introduces systems of international healthcare delivery, professions that provide healthcare delivery, and international research principles and practices.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	571	Cultural Diversity in Clinical Practice	Introduces culturally diverse aspects of clinical care, including culture bound syndromes folk practices, appropriate assessment approaches, and client/provider interaction.	N	DIS	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	572	International Health Capstone Project	Culminating course integrating all International Health requirements that produce culturally responsive implementation and evaluation plan for the student's clinical practice. A portion of the course will be held in Mexico.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
HCR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HCR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HEB	101	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
HEB	102	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: HEB 101 with C or better
HEB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HEB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	201	Intermediate Modern Hebrew	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Pre-requisites: HEB 102 with C or better
HEB	202	Intermediate Modern Hebrew	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Pre-requisites: HEB 201 with C or better
HEB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	313	Advanced Modern Hebrew	Continued development of ability to communicate orally and in writing. Reading of selected literary works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: Must have completed HEB 202 with a grade of C or greater or be currently enrolled
HEB	314	Advanced Modern Hebrew	Continued development of ability to communicate orally and in writing. Reading of selected literary works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: Must have completed HEB 313 with a grade of C or greater or be currently enrolled
HEB	375	Contemporary Culture of Israel	Intense study of aspects of historical, social, political, and cultural modern life in Israel. Beginning of Zionism to present day.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
HEB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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HEB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
HEB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
HEB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	101	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	4.		
HED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
HED	510	Introduction to Higher Education	Overview of American higher education, including philosophical, political, and social aspects.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-4		
HED	527	Seminar: Student Affairs Administration	Organizational models, administrative competencies and skills, and emerging challenges of student affairs administration.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	533	The Community-Junior College	History, functions, organization, and current issues. Meets Arizona community college course requirement for certification.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
HED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		

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HED	602	Institutional Research/Strategic Planning	Provides an overview of policy research and planning in higher education at the campus system and governing/coordinating agency levels.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	611	Curriculum and Instruction	Curriculum development, instructional organization, and improvement of instruction in higher education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	620	Diversity in Higher Education	Overview of the demographic profile of college students, faculty, and staff. Addresses issues of access, retention, and development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	644	Higher Education Finance and Budgeting	Financial planning and budgeting in higher education institutions. Issues related to financing public and private colleges and universities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	649	Law of Higher Education	Analyzes legal issues related to higher education; examines key court decisions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	668	Grant Writing and Grant Makers: The Washington Context	Develops successful proposals for educational research projects. Students gain experience writing for federal agencies, reviewing, and being evaluated on grant proposals.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking); Credit is allowed for only CPY or HED 668
HED	679	The American College Student	Overview of American college student from demographic, background characteristics, and values/attitudes/perspectives. Includes access, persistence, and degree completion.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	687	Governance, Coordination, and External Influences in Higher Education	Study of governance and coordination in higher education systems and the impact of external forces on them.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	688	Organizational Theory	Major views of organizations and their influence on role definition and participant behaviors in educational organization.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	689	Leadership in Higher Education	Theory and practice of leadership and administration in higher education institutions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	702	Critical Policy Issues In Higher Education	How great expectations in Washington are dashed in Oakland, Pressman and Wildavsky (1984) state that "policies imply theories--Whether stated explicitly or not, policies point to a chain of causation between initial conditions and future consequences." Policy can be broadly defined as a principal, plan, or course of action undertaken by governments, organizations, or individuals and designed to influence and determine decisions and actions. Many assumptions made by policy makers and other constituencies as well as competing social and political considerations shape the development of policy in higher education. Given the importance of federal and state public policy-making to higher education, we examine the effect of public policy on the functioning of colleges and universities and explore the various facets of public policy issues. Examines critical policy issues for higher education and the assumptions underlying their development.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student

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HED	704	Qualitative Case Study Approaches For Policy Research In Higher Education	Provides advanced graduate students with instruction in qualitative case study research approaches as applied to questions of higher education policy. Emphasizes individual and group interviewing as techniques for qualitative case study data collection, coding, and analysis. Particularly useful for advanced doctoral students who plan to conduct a qualitative dissertation related to a higher education policy topic.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	705	Ethics, Diversity, and Educational Leadership in Higher and Postsecondary Education	Students read and discuss recent writings on ethical decision making as related to the context of higher and postsecondary education. According to Shapiro & Gross (2008), "educational leaders have always had to make important decisions that affect the studies and lives of the next generation." St. John (2009) underscores the importance to ethical practice of understanding critical higher education issues in organizational practice, the gaps between moral beliefs and actions, and improving equity in organizations. Doctoral students review theoretical concepts related to ethical decision making and apply them to moral dilemmas in higher and postsecondary education leadership, policy-making, and organizational change.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student
HED	707	Higher Education Institutional Types and Innovative Initiatives	Students gain an in-depth understanding of the various types of higher and postsecondary education institutions in the United States, including two-year and four-year colleges and universities, historically Black colleges and universities (HBCU's), Hispanic-serving institutions (HSI's), tribal colleges, women's colleges, faith-based colleges, and for-profit colleges. Covers current classification system used to group each institutional type. Examines the contribution of each institutional type to the development of American higher education, their current status, and potential futures. Studies exemplary programs, within various institutional contexts, that seek to address the academic needs of diverse student communities. Guest speakers and an out-of-state institutional site visit provide opportunities for students to interact with and learn from faculty and administrators within institutional contexts.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
HED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
HES	301	Adult Fitness I	Physical fitness and benefits of exercise. Emphasizes fitness assessment and designing an individualized assessment program. Y/E grade only. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		
HES	301	Adult Fitness I	Physical fitness and benefits of exercise. Emphasizes fitness assessment and designing an individualized assessment program. Y/E grade only. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		Credit is allowed for only HES 301, EPE 301,325, 494, HES 301or HES 494
HES	302	Adult Fitness II	Continuation of HES 301. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: HES 301 completed with Y grade; Credit is allowed for only EPE 301, 325, 494 or HES 302
HES	302	Adult Fitness II	Continuation of HES 301. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		

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HES	303	Adult Fitness III	Continuation of HES 302. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: HES 301 with Y grade; HES 302 with Y grade; Credit is allowed for only EPE 301, 325, 494 or HES 303
HES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
HHE	510	Theory of Healthcare Design	Theoretical problem solving and practical application strategies used in the design of healthcare and healing environments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHE	540	Healthcare Design Typologies: Case Studies	Industry best practices and benchmarks for various types of hospital facilities and healthcare systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	591	Seminar		Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHS	100	Introduction to Holistic Health	Studies holistic health in a bio-psycho-socio-cultural context for health promotion and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	300	Overview of Complementary Health Systems	Identifies and describes major approaches to complementary health models in the context of holistic health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	302	Evidence-Based Complementary Health Modalities	Investigates complementary practices in the context of scholarly knowledge and standards for healthcare.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	400	Community-Based Complementary Health Services	Examines recent developments in community-based health and human services from a holistic perspective.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	402	Work, Health and the Family	Examines issues and programs in the contemporary workplace and society. Future directions for the family and its health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	403	Community Mental Health and Human Services	Examines concepts, issues, and programs in community mental health and the delivery of human services.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	405	Seminar in Holistic Health	Integrates concepts and issues in holistic health within philosophical, historical, political, economic, and cultural frameworks.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		
HHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
HHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	494	Special Topics		N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIS	101	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	102	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G & H	
HIS	103	The United States	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	104	The United States	Growth of the Republic from the Civil War period to the present day.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	300	Historical Methods	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L & H	
HIS	301	Writing in History	Focuses on methods of writing, reasoning, and arguing in American Studies. Emphasizes the drafting of summaries and short arguments.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
HIS	303	American Cultural History I	First of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	304	American Cultural History II	Second of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	305	History of American Systems to 1865	First of a two-part survey of political, legal, and economic institutions, placed in the context of the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	306	History of American Systems since 1865	Second in a two-part survey of political, legal, and economic institutions, placed in the context of a dynamic industrialist capitalist society, from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	320	19th-Century West	Social, political, and economic development of trans-Mississippi West beginning with Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	331	American Indians	History of the American Indian with emphasis on the government's Indian policy and the impact of the white man on tribal culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	340	American Military History	Studies the role of the military in American life during war and peace from colonial times to the present day.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	355	World History to 1500	Studies world history to 1500 with emphasis on the connection between regional history and the growth of world civilization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	356	World History Since 1500	Studies world history since 1500, with emphasis on the connection between regional history and the growth of world civilization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	359	Marginality and Social Identity in Late Medieval and Early Modern Europe	Social history of changing definitions and perceptions of marginality, and how these conceptions conditioned responses to marginalized groups and individuals.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: must have completed ENG 102 or 105 with a grade of C or greater AND completed HIS 101 or 300 with a grade of C or greater or be currently enrolled.
HIS	363	Reformation	The Protestant and Catholic Reformations in the 16th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	364	African American History and Culture Since 1865.	Studies African American history and culture from the end of the Civil War in 1865 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H & C	
HIS	377	Women in Europe, 1700-Present	Historical survey of European women's lives, emphasizing the impact of gender on social, political, economic, and cultural experience.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	378	20th Century Europe at War, 1900-1945	Surveys the history of the World Wars in Europe, emphasizing the relationship among military developments, culture, and society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		

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HIS	402	American Colonies: Settlement and Society in Colonial North America, 1600-1763	Examines the history of the English and French empires in North America and the Caribbean. Explores the social, economic, cultural, political, and economic development of the French and English colonies in the Atlantic World from the 17th century through the Seven Years War (1754-1763). Examines how the English and French colonies developed and matured in response to one another as well as the consequences of their persistent competition and conflict for the larger Atlantic World.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	403	Empire and Independence in North America, 1763-1800	Examines the history of British North America from 1763 through the organization of the United States' Republic.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	Pre-requisites: must have completed one of the following sets with a grade of C or greater: HIS 101 & 102, HIS 103 & 104, HIS 303 & 304, HIS 305 & 3056 or HIS 355 & 356.
HIS	406	Civil War and Reconstruction	Causes and development of the war; political, constitutional, and social issues of Reconstruction and their effects on postwar America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & H	
HIS	411	Contemporary America	The United States from 1945 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & H	
HIS	419	Topics in American Historical Periods	Focuses on specific periods in American history. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	423	Mexico	Political, economic, social, and cultural developments from 1810 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	424	The Hispanic Southwest	Development of the Southwest in the Spanish and Mexican periods to 1848.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
HIS	425	Frontiers of Hispanic Society and Culture	History of interactions between peoples and cultures of the Iberian Peninsula and Iberian global expansion through the Habsburg period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: must have completed ENG 102 or 105 with a grade of C or greater AND completed HIS101 or 300 or 355 with a grade of C or greater or be currently enrolled.
HIS	429	Topics in American Regional History	Focuses on the history of specific geographic regions within North America. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	430	20th Century Chicano/a History	Historical development of the Chicano community in the 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	431	Social History of American Women	Examines women's social position in America. In-depth analysis of specific women's issues in terms of change over time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H & C	
HIS	439	Topics in American Race, Class, Gender, and Ethnicity	Emphasizes the use of race, class, gender, and/or ethnicity as categories of historical analysis.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	443	Constitutional History of the United States	Origin and development of the American constitutional system, from Reconstruction to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	444	American Urban History	The history of the city in American life from the 19th century to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	449	Topics in American Themes and Issues	Focuses on significant themes and issues in American history.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	450	Topics in Comparative History	Comparative history with reference to one or more themes.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	454	History of Genocide	Examines the individuals and institutions responsible for the most infamous episodes of state-sanctioned violence in the 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	458	Africa Since 1400	Studies African history and culture since 1400, emphasizing ideas, events, institutions, foreign influence and its effect on the continent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	462	The African Diaspora	Enforced dispersal of Africans during the Slave Trade emphasizing its causes, effects on Africa, and the enslaved in the Americas.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	465	Origins of Racism	Studies the history of racial discrimination with emphasis on the connection among race, ideology, and the global economy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	467	Topics In Europe	Courses under this title focus on specific periods in European history. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	469	Modern Germany	Germany since 1840.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	475	Topics in European Regional and National History	Focuses on the history of specific geographic regions or nations in Europe.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	482	Topics in European Gender, Ethnicity, & Class	Emphasizes the use of gender, ethnicity, and/or class as categories of historical analysis.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	483	History of Women and Gender in Europe to 1789	European women's lives in the premodern period. Emphasizes the impact of gender on social, political, economic, religious, and cultural experience.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: ENG 102 or 105 with C or better; HIS 101 or 300 with C or better
HIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	487	Topics in European Themes and Issues	Focuses on significant themes and issues in European history.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HIS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
HIS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
HIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7	L	Pre-requisites: must have completed HIS 300 with a grade of C or greater; or be currently enrolled; AND have completed ENG 102, or 105 or 108 with a grade of C or better
HIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
HIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-3		
HON	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Honors students only; Total earned hours must be equal to or less than 60
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	273	The Human Event: Science Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on scientific thought.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L & H	Pre-requisites: HON 171 with C or better or currently enrolled
HON	273	The Human Event: Science Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on scientific thought.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L & H	Pre-requisites: HON 171 with C or better or currently enrolled
HON	274	The Human Event: Social Science Focus	Continuation of HON 171 from the Renaissance through the modern period; emphasizes the development of the social sciences.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		Pre-requisite: HON 171 with C or better
HON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		
HON	298	Honors Directed Study		N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		
HON	310	Justice and Law	Philosophical study of theories of justice in relation to law and morality. Required for Certificate in Philosophy, Politics, and Law.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	317	Philosophers, Poets, and Revolutionaries in Latin America	A transdisciplinary honors course that introduces students to major intellectual currents in three regions of Latin America.	N	DIS	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	371	Freedom and Authority	Historical overview of concepts of liberty, responsibility, and power in Western societies, emphasizing 18th- to 20th-century developments.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	372	French Cultural Influences	Explores textual and cultural artifacts formative of French culture as a series of contacts and conflicts with other peoples and lifeways.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & G	
HON	373	Heroes, Heroines, and Villains	Examines concepts of heroic and villainous characteristics as expressed in the literature and visual arts of various cultures throughout history.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	374	Black and White Atlantic	Examines development (18th- to 20th-century) and cultural manifestations of Black/White race relations within the U.S. and between the U.S. and other nations.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & G	
HON	375	Science and the Modern Self	Concentrates on texts of the 19th and 20th centuries; explores how scientific discourse determines our notions of self.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	376	Law, Literature, and Life	Multidisciplinary approach to the subject of law, examining it through literature, history, and legal philosophy.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	Pre-requisites: Honors students only
HON	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	378	Culture and Society in England, Ireland, and Scotland	Chronologically explores texts, events, and sites for historical and cultural impact on development of England, Ireland, Scotland, and their countries' relationships with each other.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & H & G	
HON	379	Romantics, Victorians, and Moderns	Examines the development and impact of various literatures, arts, and ideas in England, Ireland, and Scotland from the Romantic through the Modern period.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & G	
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	410	Philosophy, Politics, and Law	Topics in political and legal philosophy, including political authority, obligation and disobedience, the nature of crime and punishment. Required for Certificate in Philosophy, Politics, and Law.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-12		Pre-requisite: Barrett Honors student
HON	485	Biosphere 2; Study Opportunity	For students participating in the ASU-sponsored program at Biosphere 2.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1-18		
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	497	Honors Colloquium		Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisite: Honors students only
HON	497	Honors Colloquium		Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisite: Honors students only
HON	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-7		Pre-requisites: Honors students only
HON	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HON	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-15		
HPS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HPS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	311	Origins, Evolution, and Creation	History of opposition to evolutionary thinking with special reference to American creationism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	312	History of Women in Science and Medicine	Examines history of gender issues in Western science and medicine from Greco-Roman antiquity through the beginning of the 21st century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU or SB	
HPS	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	Credit is allowed for only HPS 314 or PHI 314
HPS	322	History of Science	Development and application of scientific thinking from ancient times through the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H	
HPS	323	History of Science	Development and application of scientific thinking from the 18th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H	
HPS	325	History of Chinese Medicine	Explores developments of Chinese traditions dealing with the natural world, science, and medicine.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H & G	
HPS	330	History of Biology: Conflicts and Controversies	Focuses on 19th and 20th centuries, considering biology as a discipline. Evolution, problems of heredity, development, and cell theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
HPS	331	History of Medicine	Scientific study of the human body, changing theories of disease, evolution of practical opinions on treatment, and the emerging institutionalization of medical practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
HPS	332	The Darwinian Revolution	Origin, nature, and subsequent history of the ideas of Charles Darwin.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	336	Exploration and Science	500-year survey of exploration as a historical process and cultural activity of Western civilization, with emphasis on its links with modern science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SB & H	
HPS	340	Biology and Society	Explores interactions between biological sciences and society, e.g., biomedical, environmental, ethical, historical, legal, philosophical, political, and social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:with C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188. Students with credit for BIO 311, may not enroll in HPS 340
HPS	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	402	Technology, Society, and Human Values	Values that motivate humankind to create technology. Areas of conflict and resolution of conflict between values and technology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	410	Professional Values in Science	Considers issues related to values in science such as collaboration, finances, legal issues, media, mentoring, ownership of ideas, scientific integrity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
HPS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
HPS	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
HPS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
HPS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
HPS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
HPS	511	History of Science	Teaches crucial skills needed for graduate-level research in history of science, including (1) critical analysis of primary sources from different periods in the history of science and (2) critical analysis and familiarity with important trends in the secondary literature ("historiography of science").	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	512	Philosophy of Science	Serves as a graduate-level introduction to five central themes in philosophy of science, and as a means to begin to investigate new topics.	N	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	513	Decisions and Strategies	Explores topics in decision theory, game theory, social choice theory, epistemology, and related fields. May be repeated for credit.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		

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HPS	516	History of Biology	Covers themes such as the voyages of discovery, systematics, and classification; morphology and embryology; Darwin and evolutionary biology; the rise of genetics; molecular and organismal approaches of post-WWII biology; recent history of biology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	550	Methods in History and Philosophy of Science	Introduces current methods in the practice of history and philosophy of science. Organized around major historiographical schools in the history of science such as social, institutional, intellectual, cultural, or feminist history of science and current concerns in philosophy of science such as causation, explanation, modeling, and epistemology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
HPS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	610	History and Philosophy of Science Lab	This course brings together graduate students, postdocs, and faculty members in HPS. Sessions include panel discussions of HPS topics from multiple perspectives, student-led discussions of important literature, practice presentations of papers for national meetings, discussion of dissertation and thesis ideas, and other activities that help to forge an active intellectual lab group.	N	DIS	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
HPS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
HSD	501	Theories of Science and Democracy	Provides an in-depth introduction to theoretical perspectives on the role and place of science in democratic societies and democratic governance. Emphasizes how the ideas, ideologies, and practices of science are integrated into the design and implementation of government decision making, as well as how science both shapes and is shaped by the political organization and ordering of society. Pursues such questions in the context of U.S. politics, comparatively between the U.S. and Europe, and in emerging regimes of international governance.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	502	Analysis of Knowledge and Expertise in Policy Decisions	Focuses on the role of knowledge and expertise in political and policy decision making. Particular emphasis is placed on the analysis of knowledge systems (formalized institutional approaches to the production, validation, and use of knowledge and expertise in policy decision making), their modes of failure, and the design of approaches that may be able to prevent, avoid, or reduce the frequency of such failures.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	503	Analysis of Scientific and Technological Innovation	Examines the governance of science and technology through a focus on emerging technologies whose potential consequences in society are apparent only in anticipation and whose manifestations are still being shaped by local, domestic, and international institutions. These emerging technologies include nanotechnologies, synthetic biology, and other technologies associated with genetic modification, and information and cognitive science and neuro-technologies.	N	SEM	N	OPT	Graduate College	Graduate College	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HSD	504	Analysis of Large-Scale Socio-Technological Systems	Provide skills and methods to analyze the design and management of large-scale socio-technological systems and the societal impacts of large-scale technological systems change. Emphasizes assessing the intertwining of lives and livelihoods in large-scale technological systems and the risks and vulnerabilities associated with large-scale systems failures, including the effects of both technological failures and natural hazards.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
HSD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
HSD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
HSD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Graduate College	Graduate College	1-12		
HSD	601	Core Seminar I	Interdisciplinary synthesis, theoretical foundations, and methods for humanistic and social science research on science and technology.	N	SEM	N	OPT	Graduate College	Graduate College	4.		
HSD	602	Core Seminar II	Interdisciplinary synthesis, theoretical foundations, and methods for humanistic and social science research on science and technology. Continuation of HSD 601.	N	SEM	N	OPT	Graduate College	Graduate College	4.		
HSD	610	Colloquium	Regular meeting for the entire HSDST community. Includes outside speakers, student and faculty member presentations, and community discussions. May be repeated for credit for a total of 6 hours.	N	SEM	Y	OPT	Graduate College	Graduate College	1.		
HSD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-15		
HSD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
HSD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Graduate College	1-15		

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HSM	220	Health Care Organizations	Overview of United States healthcare delivery systems; financing, health policy, basic principles of budgeting, cost-benefit analysis, and resource management.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.	H	
HSM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HSM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	493	Honors Thesis		N	PRA	N	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-6		
HSM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HSM	502	Health Care Organization	Concepts, structures, functions, and values that characterize contemporary healthcare systems in the United States.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	505	Managerial Epidemiology I	Basic constructs and measures of epidemiology. Epidemiologic study designs. Potential impact of chance, bias, confounding, on an epidemiologic study. Causal criteria; levels of evidence in epidemiological studies, implications and limitations of statistical association.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		Pre-requisites: HSM 561 with D or better
HSM	512	Healthcare Economics	Economics of production and distribution of healthcare services, with special emphasis on the impact of regulation, competition, and economic incentives.	N	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	522	Health Sector Information Management	Information technology and knowledge management applications in the health sector, including care delivery and financing institutions and in the pharmaceutical and biotechnology industries.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	542	Healthcare Law	Legal aspects of healthcare delivery for hospital and health services administration. Legal responsibilities of the hospital administrator and staff.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	561	Biostatistics	Aspects of descriptive statistics and statistical inference most relevant to health issues, including data, rates, and confidence intervals.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	564	Health Care Finance	Overview of the acquisition, allocation, and management of financial resources by healthcare providers. Focuses on economic, financial, and accounting principles.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	565	Introduction to Health Policy	Current policy issues in health through concepts of access, cost, and quality; issues relating to disease trends and policy formulation.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	566	Managerial Epidemiology II	Basic principles of epidemiology, evaluation of etiology, natural history, intervention therapy, and disease prevention.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	575	Health Policy Management and Evaluation	Provides students with the analytical techniques and real world experience to manage the implementation and evaluation of changes in health policy.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	578	Managing Clinical Trials	Introduces students to theoretical and practical aspects of randomized controlled clinical trial methodology.	N	LEC	N	GRD	W.P. Carey School of Business	School of Health Management and Policy	3.		Pre-requisite: HSM 505
HSM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	589	Healthcare Strategic Management	Capstone assessment of current policies, problems, and controversies across the broad spectrum of health services administration.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H & G	Credit is allowed for only HST 101 or SGS 111
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	

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HST	103	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G & H	
HST	105	Slavic Civilization	Development of Slavic cultures and societies from medieval Byzantium to the present; introduces modern Eurasia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	106	Asian Civilizations	Civilizations of China, Japan, and India from antiquity to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G & H	
HST	107	Asian Civilizations	Civilizations of China, Japan, India, and Southeast Asia from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	108	Introduction to Japan	Historical survey of the people, culture, politics, and economy of Japan, supplemented by audiovisual presentations. Intended for nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		Pre-requisites: Must be a BA History student; Must have less than or equal to 40 total earned hours
HST	200	Historical Themes	General introduction to selected themes in history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	201	Historical Themes in Asia	General introduction to selected themes in Asian history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	202	Historical Themes in Europe	General introduction to selected themes in European history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	203	Historical Themes in Latin America	General introduction to selected themes in Latin American history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	204	Historical Themes in the US	General introduction to selected themes in United States history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	205	Historical Themes in Africa	General introduction to selected themes in African history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
HST	210	American Social History	American society from the colonial period to the present. Ethnicity, race, age, and sex as factors in historical experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	211	American Jewish History	Chronological analysis of Jews and Judaism in American history and letters.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G	
HST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
HST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
HST	300	Historical Inquiry	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU or SB) & H	Pre-requisites: Must be a student in one of the following: Secondary Ed-History, Secondary Ed - Social Stds, History, History (Minor); Must have 45 or greater earned hours; Must have completed either ENG 102 or 105 with a grade of C or greater
HST	302	Studies in History	Specialized topics in history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	303	Studies in Asian History	Specialized topics in Asian history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	304	Studies in European History	Specialized topics in European history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	305	Studies in Latin American History	Specialized topics in Latin American history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	306	Studies in United States History	Specialized topics in United States history. Explores regions, cultures, and issues in history, and their interpretation in historical scholarship.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	307	Studies in African History	Specialized topics in African history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	H	
HST	309	Exploration and Empire	Surveys European discovery, exploration, and imperialism in the early modern and modern periods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
HST	310	Film as History	Surveys moving image media as recorder, object, and writer of history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
HST	312	History of Women in Science and Medicine	Examines history of gender issues in Western science and medicine from Greco-Roman antiquity through the beginning of the 21st century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU or SB	
HST	313	American Cultural History to 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the nation's colonial and early national periods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	

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HST	314	American Cultural History Since 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the age of industrialism to modern U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	315	Political History of the U S	American political history since independence, focusing post-1865. Evaluates major trends in issues, presidential leadership, elections, and state politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	316	20th-Century U.S. Foreign Relations	U.S. relations with foreign powers from the late 19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	319	U.S. Urban History to 1850	History of the city in American life from the colonial period to the mid-19th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	320	U.S. Urban History since 1850	History of the city in American life from the mid-19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	321	Constitutional Hist/US to 1965	Origin and development of the American constitutional system from colonial period through the Civil War.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	322	Constitutional History of the United States Since 1865	Development of the U.S. constitutional system from Reconstruction to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	323	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
HST	325	Immigration and Ethnicity in the United States	Origins, historical development, and future of a multiethnic society, 1492 to 2050.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	327	Women in US History 1600 to 1880	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	329	Women in 20th-Century US West	Examines how women of various cultures have contended for and shaped the U.S. West, including the West of imagination.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	H & C	
HST	330	Mexican Women in the U.S.	Overview of Chicana history from Mesoamerican origins to the present, focusing on Mexican women in the western U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H & C	
HST	331	Mexican American History to 1900	Mexican American history from pre-Hispanic origins to frontier journeys north through 19th-century life in the U.S. Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	332	Mexican American History Since 1900	Traces the formation of Mexican American communities across the rural and urban U.S. and examines 20th-century immigration from Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	333	African American History to 1865	The African American in American history, thought, and culture from slavery to 1865.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	334	African American History Since 1865	The African American in American history, thought, and culture from 1865 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	337	American Indian History to 1900	Cultural, economic, political, and social continuity and change of American Indian communities to 1900.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	338	American Indian History since 1900	Cultural, economic, political, and social continuity and change of American Indian communities from 1900 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C & H	
HST	341	U.S. West 19th Century	Social, political, and economic development of the trans-Mississippi West, beginning with the Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	342	US West 20th Century	Role of the western states in U.S. history since 1890 emphasizing politics, the environment, industry and labor, and ethnic minorities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	343	American Southwest	Development of the region from 1848 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	344	Arizona	Emergence of the state from early times to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	347	Ancient Greece	History and civilization of the Greek world from 650 BCE to the death of Alexander the Great.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	348	Rome	History and civilization of Rome from the beginning of the Republic to the end of the Empire.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	349	Early Middle Ages	Political, socioeconomic, and cultural developments of Western Europe from the 5th through 10th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	350	Later Middle Ages	Political, socioeconomic, and cultural developments of Western Europe from the 11th through 15th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	351	Renaissance Europe	Culture of the Renaissance in Italy and Northern Europe from the 14th to the early 16th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU or SB) & H	
HST	352	Europe's Reformations	Causes and implications of the major Protestant, Catholic, and Radical religious reformations in 16th- and 17th-century Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU or SB) & H	
HST	353	Old Regime in Europe	Society and culture of Europe during the 17th and 18th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	354	Revolutionary Europe	Political, social, economic, and intellectual currents in Europe from the French through the Russian Revolutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	355	Total War & the Crisis of Modernity	Forces of change and instability in early 20th-century Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	356	Europe since 1945	Europe in its world setting since World War II, emphasizing major political and social issues from 1945 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	

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HST	357	Philosophy and Religion	General survey of the development of central concepts in the philosophy of religion in the history of Western philosophy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites:ENG 102, or ENG 105, or ENG 108, with a grade of C or better, or be currently enrolled
HST	358	Jewish History from the Bible to 1492	Continuity and change in political, legal, economic, and sociocultural history of the Jews from biblical through medieval times.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	359	Jewish History from 1492 to 1948	Jewish history from early modern through modern times, highlighting emancipation, enlightenment, and Jewish responses to modernity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	361	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
HST	362	Sex and Society in Classical and Medieval Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and religious change in classical and medieval Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	363	Sex and Society in Early Modern Europe	Family life, sex roles, and marriage and their relationship to political, economic, and religious change in early modern Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	364	Sex and Society in Modern Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and social changes in modern Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	365	Women in Europe	European women's diverse religious, ethnic, national, and economic roles in society, culture, and politics, 1750 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU or SB) & H	
HST	366	England to 1689	Political, economic, and social development of the English people to the late 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	367	Modern Britain	Political, economic, and social development in Britain from 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	368	Culture and Imagination in European History	Topics in European cultural and intellectual history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
HST	370	Eastern Europe in Transition	Democratization, privatization, and identity transformations since the fall of communism in contemporary Eastern Europe and the former Soviet Union.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	371	Religion in Russia	Examines the history of the various religious traditions of Russia and the former USSR from an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
HST	372	Modern Middle East	Impact of the West and modernization upon Middle Eastern governments, religion, and society in the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	375	Colonial Latin America	Ancient civilization, exploration and conquerors, and colonial institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	376	Modern Latin America	Nationalistic development of the independent republics since 1821.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	377	Women in Colonial Latin America	History of women in colonial Latin America, cross-examining class, race, and gender relations in depth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	H	
HST	378	Latin American Women: The National Period	Surveys the history of women, gender relations, and state policies in a broad continental setting, from independence to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	379	Rebellion & Revolution/So Amer	Political, economic, and social development of Spanish-speaking nations in South America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
HST	380	Cultural History of Latin America	Main currents of thought, the outstanding thinkers, and their impact on 19th- and 20th-century Latin America. Cultural and institutional basis of Latin American life.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	381	South American Indian Religions	Introduces the sacred stories, ceremonies, and beliefs of Native South American peoples in their historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
HST	383	China	Political, economic, social, and cultural history of the Chinese people from early times to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	384	China	Political, economic, social, and cultural history of the Chinese people from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	385	History of Chinese Medicine	Explores developments of Chinese traditions dealing with the natural world, science, and medicine.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H & G	
HST	386	Interpreting China's Classics	Study of selected Confucian and/or Taoist classics and ways they have been read in both Asian and Western scholarship.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
HST	387	Japan	Political, economic, social, and cultural history of the Japanese people from early times to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	388	Japan	Political, economic, social, and cultural history of the Japanese people from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	389	Japan Society and Values/Premod	Effects of economic and social transitions on personal and social values as reflected in the dramatizations of contemporary events.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
HST	391	Modern Southeast Asia	Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Singapore, Brunei, Indonesia, and Philippines since 1750: imperialism, revolution, and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
HST	405	Colonial American History to 1763	Political, economic, social, and cultural history of the colonial era. Concentrates on English colonies, with some consideration of Spanish, French, and other colonial regions in North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	406	American Revolution/1763-1789	Causes, course, and consequences of the American Revolution culminating in the ratification of the Constitution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	

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HST	407	Early U.S. Republic/1789-1850	Political, social, economic, and cultural development of the United States from the Revolution to 1850.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	408	Civil War and Reconstruction	Explores the causes, conduct, and consequences of the American Civil War, concentrating on the years 1848 to 1877.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H	
HST	409	Emergence Modern U.S. 1877-1918	Triumph of modern political, social, and economic structures and values, 1877-1918; role of region, religion, race, and ethnicity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	410	Modern U.S., 1918 to 1945	1920s boom and the crash, the Depression and the New Deal response. The Second World War at home and abroad.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	411	Postwar U.S., 1945-1973	Cold War, prosperity, reform, and immense social and political change in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	412	Contemporary U.S., 1973- Present	End of the Cold War, political crises, and cultural transformations in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	414	The Modern U.S. Economy	Origins of 19th-century slavery and industrialization; 20th-century crisis and regulation: political economy of an advanced capitalist democracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	415	Unequal Sisters/Women-Pol/Cult	Examines race, ethnic, and class differences among women, focusing on the political and cultural experiences of women in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or SB) & H & C	
HST	417	Topics in Mexican American History	Focuses on specific topics in Mexican American history including immigration, civil rights, the Chicano Movement, union activism, and regional and generational differences.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H & C	
HST	423	The Tudor Monarchy	Political, cultural, and social foundations of 16th-century England.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	424	Stuart Transform of England	Political, social, economic, and cultural developments in 17th-century England.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	426	The British Empire	British imperialism and colonialism in Africa, the Americas, Asia, and the South Pacific.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	427	French Revolution/Napoleonic Era	Conditions in Pre-Revolutionary and Revolutionary France; organization of France under Napoleon and impact of French changes upon Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	428	Modern France	Social, political, economic, and cultural transformations of French society, 1815-present. Impact of industrialization, war, and revolution on people's lives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	429	Modern Germany	Germany since 1871.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	430	Hitler: Man and Legend	Biographical approach to the German Third Reich emphasizing nature of Nazi regime, sociocultural issues, World War II, and historiography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	431	Eastern Europe and the Balkans, Pre-1914	Empire and nation in Eastern Europe and the Balkans before World War I, emphasizing Hapsburg and Ottoman lands.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	432	East Euro/ the Balkans-20 Cent	Politics and culture in Eastern Europe and the Balkans from World War I to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	435	The Russian Empire	Development of Russian imperial institutions and civil society from the 17th to the early 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	436	The Soviet Experiment	Communist revolutionaries' rule of Russia, focusing on utopian culture, Stalinist terror, heroism in war, and the breakup of the former USSR.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	437	Spain through the Golden Age	Cultural, economic, political, and social development of Spain from antiquity to the late 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	438	Modern Spain	Cultural, economic, political, and social development of modern Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G & H	
HST	443	The United States & Latin America	Latin American struggle for diplomatic recognition, attempts at political union, participation in international organizations since 1810, and relations between the United States and Latin America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	445	20th-Century Cuba	History of Cuba from colonial era to formation of the early republic; political, economic, social development in late 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	446	Colonial Mexico	Political, economic, social, and cultural developments from pre-Columbian times to 1810.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	447	Modern Mexico	Political, economic, social, and cultural developments from 1810 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & H	
HST	451	Chinese Cultural History	China's classics in translation studied both for their intrinsic ideas and for the origins of Chinese thought.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & H	
HST	452	Chinese Cultural History	Evolution of Confucian thought, its synthesis with Taoism and Buddhism, and modern reactions against, and uses of, Confucian traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	453	The People's Republic of China	Analyzes major political, social, economic, and intellectual trends in China since the founding of the People's Republic in 1949.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	455	The United States and Japan	Cultural, political, and economic relations in the 19th and 20th centuries. Emphasizes post-World War II period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	456	The Vietnam War	Intersection of American and Asian histories in Vietnam, viewed from as many sides as possible.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	SB & G & H	
HST	480	Methods of Teaching History: Classroom Resources	Methods in instruction, organization, and presentation of the subject matter of history and closely allied fields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must have completed either SED 403 or SED 598 with a grade of C or greater or be currently enrolled
HST	481	Methods of Teaching History: Community Resources	Identify community-based resources for teaching history, work with resources, and learn how to integrate them into the secondary classroom.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must have completed either SED 403 or SED 598 with a grade of C or greater or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		Pre-requisites: Must be an Honors student
HST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6	L	Pre-requisites: Must be an Honors student
HST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
HST	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		
HST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-7	L	Pre-requisites: HST 194 completed or HIS 300, HST 300 or HST 200 with a C or better or currently enrolled; History student with senior standing or Education-History student with greater than 75 earned hours
HST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		
HST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	502	Public History Methodology	Introduces historical research methodologies, techniques, and strategies used by public historians. Readings, short papers, and guest speakers. Required for students in the public history concentration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	511	History of Science	Teaches crucial skills needed for graduate-level research in history of science, including (1) critical analysis of primary sources from different periods in the history of science and (2) critical analysis and familiarity with important trends in the secondary literature ("historiography of science").	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
HST	512	West Civil to the Enlightenmnt	Systematically examines various interpretations of Western civilization from the ancient Middle Eastern civilizations to the European Enlightenment.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	514	Historians of the U.S.	Study of the history of American historical writing from the early colonial days to the 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	515	Studies in Historiography	Methods and theories of writers of history.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	516	History of Biology	Covers themes such as the voyages of discovery, systematics, and classification; morphology and embryology; Darwin and evolutionary biology; the rise of genetics; molecular and organismal approaches of post-WWII biology; recent history of biology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
HST	525	Historical Resource Management	Identification, documentation, and interpretation of historic period buildings, sites, and districts. Emphasizes interdisciplinary efforts among historians, architects, and anthropologists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	526	Historians and Preservation	Preparation of historians for public and private historic preservation programs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	527	Historical Administration	Preparation of historians in administration of archives and historical sites, museums, societies, and offices in government agencies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	532	Community History	Techniques and methods of community history emphasizing local resources. Required for community history option.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	551	Comparative Histories--War and Revolution	Comparative field course of the themes of war and revolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be MA or PHD student in History.
HST	554	Population-Ethnicity/Econ/Migr	Comparative course that explores the impact of social, cultural, or economic changes in the population.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be MA or PHD student in History.
HST	555	Comparative Historical Topics	Analyzes a variety of specific social, political, cultural, and intellectual topics.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: History MA or PHD student
HST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		Pre-requisite: History MA or PHD student

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HST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		Pre-requisite: History MA or PHD student
HST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		Pre-requisite: History MA or PHD student
HST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		Pre-requisite: History MA or PHD student
HST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
HST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisite: History MA or PHD student
HST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		Pre-requisite: History MA or PHD student
HST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		Pre-requisite: History MA or PHD student
HST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		Pre-requisite: History MA or PHD student
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	

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HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	103	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
HST	107	Asian Civilizations	Civilizations of China, Japan, India, and Southeast Asia from the 17th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	203	Historical Themes in Latin America	General introduction to selected themes in Latin American history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	204	Historical Themes in the US	General introduction to selected themes in United States history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	205	Historical Themes in Africa	General introduction to selected themes in African history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HST	210	American Social History	American society from the colonial period to the present. Ethnicity, race, age, and sex as factors in historical experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	300	Historical Inquiry	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU or SB) & H	Pre-requisites: Must be a student in one of the following: Secondary Ed-History, Secondary Ed - Social Stds, History, History (Minor); Must have 45 or greater earned hours; Must have completed either ENG 102 or 105 with a grade of C or greater
HST	313	American Cultural History to 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the nation's colonial and early national periods.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	314	American Cultural History Since 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the age of industrialism to modern U.S.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	315	Political History of the U S	American political history since independence, focusing post-1865. Evaluates major trends in issues, presidential leadership, elections, and state politics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	325	Immigration and Ethnicity in the United States	Origins, historical development, and future of a multiethnic society, 1492 to 2050.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
HST	327	Women in US History 1600 to 1880	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	341	U.S. West 19th Century	Social, political, and economic development of the trans-Mississippi West, beginning with the Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	342	US West 20th Century	Role of the western states in U.S. history since 1890 emphasizing politics, the environment, industry and labor, and ethnic minorities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	343	American Southwest	Development of the region from 1848 to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	344	Arizona	Emergence of the state from early times to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	361	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
HST	364	Sex and Society in Modern Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and social changes in modern Europe.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	368	Culture and Imagination in European History	Topics in European cultural and intellectual history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
HST	408	Civil War and Reconstruction	Explores the causes, conduct, and consequences of the American Civil War, concentrating on the years 1848 to 1877.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	456	The Vietnam War	Intersection of American and Asian histories in Vietnam, viewed from as many sides as possible.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
HST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7	L	
HTY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	220	Introduction to Digital Archives	Familiarizes students with the uses and challenges of digital archives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HTY	230	Introduction to Corporate Archives	Covers principles and techniques for creating and managing corporate archives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		

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HTY	246	Introduction to Researching Family History	Introduces research methods in family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HTY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	301	Historical Research Methods	Historical research methods and critical inquiry. Required for all History and Culture majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	Pre-requisites:Must be in a History program;must have completed 45 hours or more;completed with a C or better either ENG 102, 105, 108, or ENG 112
HTY	310	History of Technology	Examines the history of technology within social, cultural, political, and economic contexts and the critical relationship between society and technology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	H	
HTY	312	History of Science	Examines the beginnings of modern science and traces its development and impact to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	314	History of Computing	Examines the history of computing, including the development of computing devices, and the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	316	History of Engineering	The history of engineering from the earliest record to modern times, examining the social, cultural, and economic effects on society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & G	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	320	History of American Agriculture	Overview of the history of agriculture in America from pre-contact to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	325	History of American Business	The history of American business, including its evolution, structure, and values.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108, or ENG 112 with a grade of C or better
HTY	326	History of Landscape Design	Examines the history of design traditions and landscaping from the ancient world to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisites: ENG 102, ENG 105, or ENG 108 with a grade of C or better
HTY	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102,ENG 105, ENG 108, or ENG 112, with a C or better
HTY	330	History of Printing and Media	Examines the history of printing, books, and the development of modern forms of media.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	334	Archival Preservation and Digital Media	Covers the preservation of digital archival data.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:HTY 220, or HTY 230 with a grade of C or better
HTY	336	Editing Historical Documents	Covers the principles and techniques for editing historical document collections.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108, or ENG 112, with a grade of C or better, and HST 300 or HTY 301 with a C or better
HTY	340	Exploration and Science	Examines connections between science and exploration in the encounter between Europeans, Asians, Africans, and Americans, circa 1400-1700.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	346	Intermediate Family History Research	How to locate records, analyze and interpret evidence, and write a family history narrative.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENH 246 or HTY 246 with a C or better or currently enrolled
HTY	350	Environmental History	Examines the interaction between humans and the natural world in the United States from the late 19th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	360	Women and Science	Examines the role of women in the sciences, focusing on their achievements, challenges, barriers, and persistence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	365	Latin American Independence	History of independence movements throughout the Western hemisphere from the late 18th century until the mid-19th century.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G & H	Pre-requisite: ENG 102, 105, 108 or 112 with C or better
HTY	370	History of Collecting	Historic overview of the practice of collecting art, artifacts, specimens, memorabilia. Includes classification and display systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	374	Western Rivers	Examines the relation between rivers, culture, and environment in the American West.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	410	Historic Preservation	Major topics of historic preservation, such as legislation, education. Includes principles of preservation and interpretation of artifacts and structures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, ENG 105, ENG108, or ENG 112 with a C or better; AND HST 300 with a C or better
HTY	430	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 530, may not enroll in HTY 430
HTY	435	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 535, may not enroll in HTY 435
HTY	440	The Premodern City	The development of urban centers from ancient times to the Industrial Revolution or 18th century.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	450	History of Ecology and Conservation	Examines the historical development of ecology and conservation movements in the United States and the world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	460	Mexican/U.S. Border	Analyzes the evolution of the Mexican/U.S. border region from the mid-19th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, ENG 105, ENG108, or ENG 112 with a C or better
HTY	462	Mexican Immigration to the U.S.	Assesses the evolution of immigration and emigration public policy since the mid-19th century. Seeks to contextualize the relationship between immigration and other elemental nation-state issues as the economy, education, identify, and civil rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H & C	Pre-requisite: ENG 102, 105, 108 or 112 with C or better
HTY	464	Postmodern Mexico	Challenges historical myths about the evolution of the nation state and calls into question that globalization and transnationalism are only recent phenomena of the postmodern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G & H	Pre-requisite: ENG 102, 105, 108 or 112 with C or better

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HTY	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
HTY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		Pre-requisites: HTY 301 with C or better or currently enrolled; Senior academic level
HTY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
HTY	530	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 430, may not enroll in HTY 530
HTY	535	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 435, may not enroll in HTY 535
HUD	161	Graphic Communication	Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Development student
HUD	201	Introduction to Housing and Urban Development	Perspectives and issues concerning HUD. Guest lectures by interdisciplinary faculty and private, public, and non-profit practitioners.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	301	Housing and Community Design and Development	Single- and multifamily housing, residential neighborhoods, and planned communities. Affordability in owner-occupied and rental housing. First-time, move-up, and adult markets.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	302	Housing Production Process	Development feasibility analysis, finance, contracts, land acquisition, community and permit presentation and negotiation, scheduling, cost control, marketing, and sales.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	361	Housing and Urban Development Studio I: Residential Design and Development	Affordable residential design, development, and production process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; Passed Milestone; Co-requisites: HUD 301; HUD 363
HUD	362	Housing and Urban Development Studio II: Community Design and Development	Neighborhood and new community design and development process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; HUD 361 with C or better; Co-requisite: HUD 302; HUD 364; HUD 403
HUD	363	Housing and Urban Development Seminar I: Residential Design and Development	Affordable residential design, development, and production process.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; Co-requisites: HUD 301; HUD 361
HUD	364	Housing and Urban Development Seminar II: Community Design and Development	Neighborhood and new community design and development process.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; Co-requisites: HUD 302; HUD 362; HUD 403
HUD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
HUD	401	Assisted Housing	Publicly subsidized and nonprofit housing. Policy, implementation, and administration. FHA, Section 8, FmHA, projects and scatter site, and tax considerations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Junior Standing
HUD	402	Community Revitalization: Problems and Strategies	Public policy and strategies for neighborhood revitalization and community renewal. Preservation and adaptive reuse, gentrification, neighborhood safety, and related socioeconomic concerns.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Junior Standing
HUD	403	Advanced Topics in Housing and Urban Development	Varying topics, such as manufactured housing, homelessness, mortgage and finance in housing, housing abroad, marketing housing, and sustainable community development.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Junior Standing
HUD	461	Housing and Urban Development Studio III	Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction, cost management, and marketing.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; HUD 362 with C or better; Co-requisites: HUD 401; HUD 463
HUD	462	Housing and Urban Development Studio IV: Neighborhood Revitalization Process	Housing rehabilitation, neighborhood revitalization, and urban infill. CDBG, empowerment-enterprise zoning, code enforcement, citizen participation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; HUD 461 with C or better; Co-requisites: HUD 402; HUD 464
HUD	463	Housing/Urban Dev Seminar III	Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction and cost management, and marketing.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; HUD 302 and HUD 364 with C or better; Co-requisites: HUD 401; HUD 461
HUD	464	Housing and Urban Development Seminar IV: Neighborhood Revitalization Process	Housing rehabilitation, neighborhood revitalization, and urban infill. CDBG, empowerment-enterprise zoning, code enforcement, citizen participation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; Co-requisites: HUD 402; HUD 462

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HUD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Housing & Urban Developmnt BSD student
HUD	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
HUD	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
HUD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
HUD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
HUM	502	Writing Cultures	Theories and methods of representing Western and non-Western cultures in literature, history, ethnography, and pictorial media.	N	LEC	N	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		
HUM	503	Research and Writing in the Humanities	Systematic training in humanistic research and writing with particular attention to the interdisciplinary study of culture.	N	SEM	N	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	513	Interpretation of Cultures	Methodologies and comparative theories for the study of relationships among various aspects of culture, the history of ideas, and the arts. May be repeated for a total of 6 semester hours when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		Pre-requisite: Must be a Graduate student.
HUM	530	Pop Culture America		Y	LEC	Y	CNV	Liberal Arts and Sciences	Division of Humanities T	3.		
HUM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Division of Humanities T	1.		
HUM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	413	Comedy: Meaning and Form		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IA	102	Wood Turning		Y	LEC	Y	CNV	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
IAP	101	Art, Artist, and Culture	Provides an approach to art, creativity, and culture in global, historical, and contemporary contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAP	102	Foundations I: Performance Techniques and Composition	Focuses on practice-based studies of contemporary presentational strategies and techniques.	N	STO	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	103	Foundations I: Interdisciplinary Digital Media	Digital media studies and application of contemporary artists, processes, and presentation practices in Interdisciplinary arts.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

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IAP	104	Foundations I: Fundamentals of Sound Art	Investigates late 20th- and 21st-century sound art and our relationship with it.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	105	Foundations I: Fundamentals of Interdisciplinary Art	Focuses on contemporary aesthetic concepts and language for interdisciplinary arts application.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	CS	
IAP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	201	Introduction to Interdisciplinary Arts	Considers interdisciplinarity in practical terms in all art forms. Also considers antecedents and cross-cultural issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAP	202	Perspectives on Interdisciplinary Arts and Performance	Social, cultural, and historical examination of interdisciplinary art and performance and a survey of current interdisciplinary work and approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: Must have completed IAP 201 with a D or better
IAP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	301	Energetic Systems of Art: Collaboration in the Arts	Identifies and explores the energetic systems at work in the creation, performance, and perception of art.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	302	Cross-Cultural Perspectives on the Arts	Social and cultural perspectives of art and performance through a survey of historical and contemporary attitudes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	303	Artists and the Contemporary American Experience	Explores the life of the contemporary American artist with respect to individuality, pluralism, gender, race, ethnicity, and regionalism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	304	Traditions of the Avant-Garde and Experimental Art	Surveys 20th-century art movements and isms, including futurism, dada, surrealism, constructivism, realism, the Bauhaus, abstract expressionism, minimalism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	305	20th and 21st Century Art, Performance, and Media	Surveys artists, movements, and trends in the arts with an emphasis on interdisciplinary performance, media, and technology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	306	Extended Traditions in Drawing	Explores alternative methods of rendering the drawn image. Emphasizes incorporating other art forms to inform students' individual work.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	307	Art and War	Global interdisciplinary survey of the range of work created by artists in response to war, through time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
IAP	310	Women in Art	Cultural, historical, and social issues relating to the seeming scarcity of women artists and changing social contexts for women artists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	321	Music Composition I	Study and implementation of specific compositional theories and procedures. May be repeated for credit when topics vary. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must be in Plan ASIAPBA
IAP	322	Multitrack Digital Recording	Introduces students to theory and practice of Musical Instrument Digital Interface (MIDI) technology.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Pan ASIAPBA
IAP	323	Music and the Visual Arts	Histories and theories of music and visual arts with emphasis on convergences within 20th-century avant-garde traditions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	324	The Voice and Performance	Involves all aspects of the human voice, including research, creation, and performance.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	325	Sound Performance: Exploring Alternative Performance Groups	Utilizes innovative sound ensembles to explore all aspects of sound and its place in various art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	331	Performance, Acting, and the Individual	Explores the concepts of the self, the subject, and the author as each pertains to the solo artist.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	332	Technical Production for Interdisciplinary Arts	Develops basic technical knowledge and application of fundamental stagecraft techniques used in the creation and presentation of performance works. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	333	Directing for Performance	Explores various strategies for performance. Emphasizes nontraditional staging and performance.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	334	Conceptual Development in the Arts	Conceptual development processes in the arts from initial idea to formal project proposals, grants, and production plans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Interdisciplinary Arts and Performance student
IAP	335	Vocalization and Movement	Study, application, and coordination of vocal projection techniques with bodily movement competencies in presenting original and existing contemporary performance works.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	347	Movement in Education	Theory and practice of teaching dance and creative movement in schools, K-12. Open to all students.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	351	Concept, Image, and Text	The generation of images and metaphors using various media and visual stimuli.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	352	Seeing and Drawing	Develops drawing and seeing skills that are important not only to visual arts but also to music, dance, and theatre.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	354	Visual Representation	Explores materials, processes, and aesthetic concepts of art making through various media with readings on cultural perspectives and contemporary theory.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Interdisciplinary Arts and Performance student
IAP	355	Illusion and Vision	Inquiry into 2-D surfaces for visual representation and personal expression; includes readings on color theory, visual perception, and historical/cultural patterns.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

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IAP	356	Spatial Impressions	Investigates 3-D forms, the processes and concepts of physicality, and the environment with readings on spatial perception and cultural objects. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN ASIAPBA
IAP	360	IAP Laboratory	Provides instructor-student contact time focusing on the technical instruction of media and technology applications.	Y	LAB	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		
IAP	361	Digital Editing and Media Literacy	Investigates the approaches used in digital editing with a focus on interactivity, graphics, audio, and desktop video. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	CS	Pre-requisites: must be in PLAN ASIAPBA, or ASACOBS
IAP	363	Sound, Image, and Media	Interdisciplinary arts projects for experimental approaches to relating sound and visual image, accompanied by survey of historical and contemporary material. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	364	Documentaries	Media arts projects exploring new and experimental forms of visualization based upon an interdisciplinary survey of historical and contemporary examples. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN ASIAPBA
IAP	365	Digital Interactivity	Combines graphics, video, and animation with digital authoring tools for creation of interactive multimedia Web sites. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan: ASIAPBA OR Plan: ASACOBS
IAP	368	Digital Graphic Technologies	Employs technology used in contemporary graphic designs to design concepts and techniques for modeling and representation applications.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	371	Verbal Art	Examines varieties of verbal art in everyday life, literature, oral and literate cultures. Considers diverse cultural forms and values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	373	The Critical Artist	Focuses on artists' critical thought, theorizing, and representation of art across disciplines and genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	421	Composition: Process, Technique, and Style II	Advanced study of specific compositional theories and procedures; in-depth analysis of individual work. Fee.	N	LEL	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN: ASIAPBA
IAP	422	Contemporary Orchestration Practices	Traditional and experimental scoring techniques for small and large ensembles using MIDI technology, digital samplers, and traditional instruments. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	431	Perspectives on Performance and Acting	Focuses on the interaction of the performer with media, alternative stagings, and collaboration with other performers.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN: ASIAPBA
IAP	433	Directing Workshop	Applies experimental directorial techniques to presentations and deconstruction of classical works including European and cross-cultural traditions.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	434	Production Laboratory	Develops original scripts into showcase productions. Students function as theatrical ensemble, participate in all phases of performance and production values. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	441	Movement for Performance	Explores the relationship of movement as it relates to performance, both historically and cross-culturally.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	442	Movement and Music	Surveys ways artists have brought together movement and music in artistic creations in various disciplinary and interdisciplinary contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	452	Elements of Painting	Develops painting skills and personal artistic vision through projects stimulated by other art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	454	New Directions in Painting	Develops painting skills and personal artistic vision through projects stimulated by other art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	457	Urban Narrative	Conceptually based studio focusing on artists' voices in contemporary urban environment with readings on spatial perception and cultural objects. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	464	Media and Diversity	Interdisciplinary art projects exploring identity, perception, and technologies from a basis of class, race, ethnicity, gender, sexuality, and ecology.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	465	Media Technologies and the Arts	Practical explorations of media arts interrelated with cultures, society, and technology, addressed through readings, discussion, research, and student arts projects.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	466	Digital Interactivity, Advanced	Advanced multimedia authoring skills for creation of interactive works in DVD, CD ROM, and other media formats. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA OR PLAN: ASACOBS
IAP	467	Acoustic Ecology	Investigations into the relationship between audio art and ecology; covers field recording, oral histories, digital editing, and designing audio Web site and databases. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	468	Digital Graphic Applications	Targeting, planning, design, authoring, development, and presentation of professional digital media graphics for Internet and print.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA OR PLAN: ASACOBS
IAP	469	Advanced Audio Production	Engages advanced media students in the technical, logistical, and aesthetic concerns specific to audio in all forms of digital media. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	471	Language, Culture, and Performance	In-depth examination of language in myth, poetry, social and aesthetic performance genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	472	Theories of Arts and Performance	Key texts, thinkers, concepts, and approaches to the arts and performance.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IAP	473	Aesthetic Research	Investigates how artists, in all disciplines and from different historical periods, conduct or participate in research.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	474	Art and Film	Focuses on film as an art form in relation to the arts through aesthetics, cinematic theory, period study.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	480	Senior Project	Capstone course. Students develop an exit project for the IAP degree under the guidance of an advisor. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3-6		
IAP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAP	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAP	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
IAP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
IAP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	220	Psychology, Multicultural Narratives, and Religion	Examines contemporary multicultural life narratives that explore diversity in America and the authors' constructions of psychological identity and religious values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: ENG 101 or 105 with C or better
IAS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAS	300	Adult Career Development	Analysis of sociological and economic factors of 21st-century work environments, integrated with a psychological understanding of adult development. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or SB	Pre-requisites: ENG 101 or 105 with C of better or Applied Science student
IAS	305	Work and Identity	Explores the relationship between work and identity, as well as the search for meaning in work across generations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
IAS	310	Women in Art	Cultural, historical, and social issues relating to the seeming scarcity of women artists and changing social contexts for women artists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater, or be currently enrolled, or co-enrolled with IAS310.
IAS	324	Existential Ethics	Ethical aspects of theistic and atheistic accounts of existentialist philosophy. Freedom and responsibility and their significance in human experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	340	Bioethics	Philosophical exploration of ethical issues in healthcare delivery and the life sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	401	Sacred Scriptures and Social Choices	Examines relationships among contemporary moral issues and the sacred scriptures to support choices at individual, group, and public levels.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
IAS	406	Moral Dilemmas	Philosophical analysis of moral dilemmas arising in professional and public settings. Ethical decision making in business, educational, human service, and scientific communities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better. Credit is allowed for only IAS 406 or PHI 406
IAS	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
IAS	408	Feminist Ethics	Philosophical exploration of the theoretical and practical aspects of ethical issues affecting women from diverse feminist viewpoints.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	409	Eco-Community Ethics	Traces human interaction with the Earth from hunters and gatherers to the present day, examining groups who have lived within ecological constraints and limits.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	410	Evolution of Ideas	Investigates ideas (paradigms) and revolutions (paradigm shifts). Examines several topics from perspectives of science, arts, humanities, social sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better

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IAS	411	History and Philosophy of Mathematics	Examines nature of mathematics from origins to present, revealed by its history and philosophy. Strong background in mathematics not required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	Credit is allowed for only IAS 411 or MAT 411
IAS	415	Life in the Universe	Examines the search for life in extreme environments on Earth and in remote locations beyond Earth.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAS	416	Black Holes and Beyond	Explores developments in understanding nature's most basic force-gravity-from Aristotelian concepts to modern theories of curved space-time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAS	420	Multicultural Autobiographies	Examines the human experience via autobiographies and personal narratives. Multicultural, literary, and psychological perspectives on individual lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: ENG 101 or 105 with C or better
IAS	430	Science and Religion	Examines evolving relationships between scientific thought and Western and Eastern religious thought. Explores cosmologies, worldviews, and epistemologies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
IAS	477	World Literature	Introduces world literature, mostly outside the United States and England.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisite: ENG 101 or 105 with C or better
IAS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
IAS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
IAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IBC	604	Clinical Medicine/Pathophysiology	Overview of each of the main systems within the human body. Addresses the major diseases (symptoms, diagnosis, and medical treatments) within each system. Students learn appropriate medical terminology for symptoms, diseases, treatments, and medical tests so they can communicate effectively with medical practitioners (nurses and physicians). Content is equivalent to pathophysiology training in an RN program. Also addresses the role of behavioral care providers in medical settings; design and implementation of psychoeducational programs in primary care; stress management techniques for use in medical settings; chronic pain management; identification and treatment of somatization disorder; increasing compliance in noncompliant patients; alternative/complementary medicine; overview of nutrition; and the effects of exercise and nutrition on prevention and treatment of diseases.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
IBC	704	Evidence-based Behavioral Interventions I: Core Skills	Covers the basic principles of the Biodyne Model, which are applicable to all behavioral health cases, both in outpatient mental health settings and in integrated care settings. Core knowledge forms the basis for success as a behavioral care provider in integrated medical settings. Includes common psychotherapist mistakes, evidence-based treatment, basics of the Biodyne Model, survey of integrated care approaches, defense mechanisms, case conceptualization strategies for maximum efficiency, and when to refer a patient for specialty care. Presents in detail common conditions (anxiety and depression), with a focus on how these conditions can be subcategorized for maximum treatment efficiency. Emphasizes the development of comprehensive treatment plans (including psychotropic medications, group programs, and other modalities). Presents didactic material in the context of actual cases. Strong focus on case examples, both illustrative cases provided by the instructor and the students' cases (past and/or current).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		

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IBC	712	Population-Based Behavioral Health Management	Overview epidemiology for health care followed by population-based approaches to behavioral intervention. Epidemiology includes concept of populations; descriptions and definitions of health and disease; measurement of health (measures, morbidity, mortality and health); designs for studying the health of populations and standardization of population health measures. Population-based management includes definitions of medical management; planning health care for populations and population health outcomes; quality of care and economic analysis of population-based interventions; adjunctive treatments as a core component of population-based interventions. Also, advanced application of population-based behavioral interventions with a focus on design, measures, analysis, results and discussion of current approaches. Includes predictive modeling methods for defining populations; interventions focusing on stepped-care approaches; engagement strategies, interventions, measurement, and follow-up.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	718	Healthcare Systems: Organization, Delivery and Economics	Provides an overview of the U.S. healthcare system with a focus on economics and policy. Primary goals of the course are to enable students to recognize the relevance of economics to healthcare and to apply economic principles to better understand health-related issues; understand the U.S. healthcare delivery system in the context of social, policy, and economic factors; evaluate the evolving nature of healthcare reform initiatives and their implications for clinical practice, financing, research and policy; analyze public healthcare policy from an economic perspective. Students also focus on behavioral healthcare economics and policy and the economics of behavioral health services in medical settings. Students also understand the medical cost offset effect, including economic benefits of behavioral interventions for co-morbid medical and behavioral conditions, measurement of medical cost-offset, and cost-offset for psychopharmacology and specific behavioral conditions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
IBS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey MBA program students
IBS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey MBA program students
IDN	101	Elementary Indonesian I	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
IDN	102	Elementary Indonesian II	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites: IDN 101 with C or better
IDN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
IDN	201	Intermediate Indonesian I	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: IDN 102 with C or better
IDN	202	Intermediate Indonesian II	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: IDN 201 with C or better
IDN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
IDN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
IDN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
IDN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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IED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
IED	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	401	Navajo Language and Culture I	History and culture are added components to the introduction of language reading, writing, and speaking. Emphasizes basic communication and appreciation of history and culture.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	403	Navajo Language and Culture II	Emphasizes communication, grammar, and sentence structures. Translations, reading, writing, and discussions of proper and slang language. Includes cultural activities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	410	History American Indian Educ	Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. Credit is allowed for only IED 410 or 510.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	SB & H & C	Pre-requisites: Students who have credit for IED 510, may not enroll in IED 410
IED	430	Lang/Literacy-Indig Peoples	Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective. Credit is allowed for only IED 430 or 530.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	(HU or SB) & C	
IED	433	Counseling the Indian Student	Techniques and methods used in counseling, with emphasis on understanding Indian cultures and values. Experimentation with new counseling concepts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	444	Govt Role-Native Ed Pol/Adm	Examines the interrelationship of federal Indian policy, federal/state/tribal law, and tribal sovereignty as they have shaped American Indian education. Analyzes administrative practices and personnel, program and fiscal management, and resources as they reflect the historic and present influence of this triad of factors. Credit is allowed for only IED 444 or 544.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	SB	
IED	460	Yaqui History and Culture	Yaqui history and culture ranging from precontact to the present. Larger themes of Yaqui identity, belief systems, family, traditions, community, resistance, dispersion, and survival.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	(HU or SB) & C & H	
IED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
IED	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
IED	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6	L	Pre-requisites: Must be an Honors student
IED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	497	Honors Colloquium		Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
IED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-7		
IED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
IED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	510	History of American Indian Education	Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. Credit is allowed for only IED 510 or 410.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student. Students who have credit for IED 410, may not enroll in IED 510
IED	530	Language/Literacy-Indig People	Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective. Credit is allowed for only IED 530 or 430.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
IED	544	Govt Role-Native Ed Pol/Adm	Examines American Indian education and how it is impacted by the interrelationship of federal Indian policy, federal/state/tribal law, and tribal sovereignty. Credit is allowed for IED 544 or 444.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
IED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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IED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
IED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	407	Dine Education Philosophy	Assists preservice teachers in integrating Navajo educational philosophy Sá'ah Naagháí Bik'eh Hózhóon into educational instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.	HU & C	
IED	413	Lang Arts-Methods/Mgmt/ Assess	Theory and practice on the social nature of oral and written language and the development of appropriate classroom practices for indigenous students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	414	Rdg Meth/Mgmt/Asmt-Indig Clsrm	Development of reading and phonics instruction, management, and assessment methods necessary for successful literacy development for indigenous students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	420	Science Methods, Management, and Assessment for Indigenous Classrooms	Develops and applies elementary science lessons accommodating multiple world views, including those of Native societies. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	422	Methods/Teach Indian Students	Philosophies, methodologies, and materials used in Indian education. Examines local and tribal classroom materials. Experimentation with new teaching concepts.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
IED	425	Methods of Teaching Navajo to Nonnative Speakers	Methods for teaching Navajo language immersion instruction in K-8 settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		Pre-requisites: Dine Teacher Education ITC admission.

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IED	427	Meth Teach Navajo-Native Spkrs	Methods for teaching Navajo language immersion instruction in K-8 settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		
IED	455	Soc St Meth/Mgt/Asmt-Indig Cls	Examines methods, classroom management, and assessment for elementary social studies instruction for indigenous learners, while incorporating language and culture.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
IED	480	Math Meth/Mgt/Asmt-Indig Clsrm	Develops and applies elementary mathematics lessons incorporating learning styles and cultural perspectives.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	496	Field Experience: Classroom Management and Organization	Applies course content in indigenous classrooms. Emphasizes observation, management, and planning and delivering instruction. May be repeated for credit. fee	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		
IEE	100	Introduction to Engineering Design	Introduces industrial engineering design; teaming, the profession of engineering, computer models in engineering communication skills; quality and customer satisfaction. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	2.		Pre-requisites: Freshman or Sophomore standing
IEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-3		
IEE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-4		
IEE	210	Introduction to Industrial Engineering	History of IE: IE career paths; ethical, social, and contemporary issues; introduces IE techniques, methods, and their application; case studies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: IEE 100 with C or better; MAT 265 (or MAT 270) with C or better
IEE	220	Business/Industrial Engr	Introduces business for industrial engineers, including business/financial structures, fundamentals of cost and accounting, role of business/engineering in society.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Must be a Pre-professional, BS or BSE student in the Ira A. Fulton College of Engineering AND earn a grade of C or better in CHE 100, IEE 100 or MSE 100 OR a grade of D or better in ECE 100;Must be sophomore status or higher
IEE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-4		
IEE	300	Economic Analysis for Engineers	Economic evaluation of alternatives for engineering decisions, emphasizing the time value of money.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Prerequisites: FSE BS/BSE OR Non Engrn with a min GPA of 3.00; MAT 265, 270 or 290 with a D or greater or currently enrolled; BME 100, CEE 100, CHE 100, CSE 101, ECE 100, EEE 101, IEE 100, MAE 100 or MSE 100 with a D or greater or be currently enrolled
IEE	305	Information Systems Engineering	Overview of computer and information systems applications. Topics include client/server; distributed computing; networks; process modeling; e-commerce; enterprise applications; Internet. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	CS	Pre-requisites: CSE 200 or 205 completed with a D or better or currently enrolled; Must either be an Engineering BS/BSE student or must be a Non-Engineering students with a minimum GPA of 3.00
IEE	368	Facilities Analysis and Design	Planning, analysis, and design of the tangible physical assets of the firm. Emphasizes facilities location, materials handling, automation, computer integration, and utilization of financial resources. Applications in diverse fields. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	L	Pre-requisites: IEE 300 completed with a grade of D or better or currently enrolled; Must be either an Engineering BS/BSE student or a Non-Engineering student with a minimum GPA of 3.00.
IEE	369	Work Analysis and Design	Planning, analysis, and design of methods of accomplishing work. Emphasizes human factors, work planning, methods analysis and design, and work measurement. Applications in diverse fields. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	L	Pre-requisites: Engineering BS/BSE students only and a grade of D or better or currently enrolled in IEE 300.
IEE	376	Operations Research Deterministic Techniques/Applications	Industrial systems applications with deterministic operations research techniques. Resource allocation, product mix, production, transportation, task assignment, networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: CSE 200 or CSE 205; MAT 242, 342, or 343
IEE	380	Probability and Statistics for Engineering Problem Solving	Applications-oriented course with computer-based experience using statistical software for formulating and solving engineering problems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	CS	Pre-requisites: Engineering student; MAT 266 or 271 with C or better
IEE	385	Engr Statistics - Probability	Designing statistical studies for solutions to engineering problems. Methods include regression, design and analysis of experiments, and other statistical topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Engineering BS/BSE/MS/MSE/PHD student; IEE 380 with C or better or ECE 380 with D or better
IEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-4		
IEE	405	Developing Information Systems Applications	Analysis and design of distributed information system applications using object and relational architectures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisite: Engineering BS or BSE student
IEE	431	Engineering Administration	Introduces quantitative and qualitative approaches to management functions, engineering administration, organizational analysis, decision making, and communication. Credit is allowed for only IEE 431 or 541.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Must be a senior Engineering BS/BSE student.
IEE	437	Human Factors Engineering	Studies the human psychological and physiological factors that underlie the design of equipment and the interaction between people and machines. Credit is allowed for only IEE 437 or 547.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Engineering BS/BSE students OR Non Engineering students with a minimum GPA of 3.0
IEE	461	Production Control	Techniques for the planning, control, and evaluation of production systems. Project management, forecasting, inventory control, scheduling, enterprise requirements planning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Must be an Engineering BS/BSE student AND have completed with a D or better IEE 376 or IEE 476 AND have completed ASE485, IEE 385 or IEE 485 with a grade of D or better AND have completed CSE 100 or CSE 110 with a grade of D or better.
IEE	463	Computer-Aided Manufacturing and Control	Computer control in manufacturing, CIM, NC, logic controllers, group technology, process planning, and robotics. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	CS	Pre-requisites: Must be an Engineering BS/BSE student with Junior or Senior standing

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IEE	470	Stochastic Operations Research	Modeling and analysis with emphasis on stochastic operations research. Models for stochastic processes, including Markov chains, queueing and decision analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Industrial Engineering BSE student; IEE 376 completed with a C or better or currently enrolled; IEE 385 completed with a C or better or currently enrolled
IEE	474	Quality Control	Basic statistical process control techniques, capability analysis, design of experiments, and acceptance sampling plans.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Industrial Engineering BSE student and a grade of D or better in ASE 485, IEE 385 or IEE 485.
IEE	475	Simulating Stochastic Systems	Analyzes stochastic systems using basic queueing networks and discrete event simulation. Basic network modeling, shared resources, routing, assembly logic. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	CS	
IEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-12		
IEE	490	Project in Design and Development	Individual or team capstone project in creative design and synthesis. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	L	Pre-requisites: Must be a senior Engineering BS/BSE student and have completed IEE 475 or be currently enrolled AND have completed with a grade of D or better IEE 376 or IEE 476.
IEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-6		Pre-requisites: Must be an Honors student.
IEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-6	L	Pre-requisites: Must be an Honors student
IEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-4		
IEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-7		
IEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-3		
IEE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-12		
IEE	505	Information Systems Engr	Studies information systems application engineering. Topics include information technology, data modeling, data organization, process mapping, application and database engineering, and user interface development. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisite: Engineering Graduate student
IEE	511	Analysis of Decision Processes	Methods of making decisions in complex environments and statistical decision theory; effects of risk, uncertainty, and strategy on engineering and managerial decisions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Engineering graduate student
IEE	512	Introduction to Financial Engineering	Introductory course on financial engineering covering traditional portfolio theory, forwards, futures, financial stochastic models, option pricing, and risk management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		
IEE	520	Statistical Learning for Data Mining	Surveys data analysis methods for massive data sets and provides experience in analysis with computer software.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		
IEE	530	Enterprise Modeling	Focuses on social, economic, and technical models of the enterprise with emphasis on the management of technological resources. Includes organization, econometric, financial, and large-scale mathematical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisite: Engineering Graduate student
IEE	532	Management of Technology	Topics include designing a technical strategy; technological forecasting; interfacing marketing engineering and manufacturing; designing and managing innovation systems; creativity; application of basic management principles to technology management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	533	Scheduling	Provides the basic theory of scheduling and introduction to the applications domain.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisite: Engineering Graduate student
IEE	534	Supply Chain Modeling/Analysis	Techniques for modeling and analysis of supply chains. Inventory management, transportation/location models, value of information, channel alignment, risk pooling, contracts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		
IEE	535	Intro Intl Logistics Systems	Exploratory project-oriented course that addresses domestic and international logistics practices from a high-level descriptive perspective and an analytical model-based perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		
IEE	541	Engineering Administration	Introduces quantitative and qualitative approaches to management functions, engineering administration, organizational analysis, decision making, and communication. Credit is allowed for only IEE 541 or 431.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student.
IEE	543	Cmptr-Aided Manufact/Control	Computer control in manufacturing, CIM, NC, logic controllers, group technology, process planning and robotics. Credit is allowed for only IEE 543 or 463.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Must be an Engineering graduate student.

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IEE	545	Simulating Stochastic Systems	Analyzes stochastic systems using basic queuing networks and discrete event simulation. Basic network modeling, shared resources, routing, assembly logic. Credit is allowed for only IEE 545 or 475.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be Engineering graduate student.
IEE	547	Human Factors Engineering	Study of people at work; designing for human performance effectiveness and productivity. Considerations of human physiological and psychological factors. Credit is allowed for only IEE 547 or 437.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	552	Strategic Technological Planning	Studies concepts of strategy, strategy formulation process, and strategic planning methodologies with emphasis on engineering design and manufacturing strategy, complemented with case studies. Presents and uses an analytical executive planning decision support system throughout course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student AND a grade of C or better or co-enrolled in IEE 545, IEE 561, or IEE 574.
IEE	553	Information Systems Assurances	Develops and applies engineering approaches to assuring the security of enterprise information systems, including principles of dependable information systems, technologies for information systems, intrusion detection, system response, and recovery.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Graduate Engineering student; IEE 505 with a C or better
IEE	560	Object-Oriented Info Systems	Applies object-oriented technology and concepts to enterprise information systems. Topics include requirement analysis, object-oriented design and programming, rapid application development, object data management, and development of object-oriented distributed applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student and have a grade of C or better in IEE 505 or be currently enrolled.
IEE	561	Production Systems	Understanding how factories operate, how performance is measured, and how operational changes impact performance metrics. Operational philosophies, increasing production efficiency through quantitative methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	562	Computer-Aided Mfg-CAM Tools	Current topics in automation, distributed control, control code generation, control logic validation, CAM integration, CAD/CAM data structures, planning for control systems. Topics vary by semester.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student and have completed IEE 463 or IEE 543 with a grade of C or better or be currently enrolled.
IEE	563	Distributed Info Systems	Introduces concepts and technologies that form the core of distributed enterprise information systems. Topics include client-server architectures, distributed objects and paradigms, Internet, World Wide Web, distributed information sharing, network programming, and e-commerce and enterprise applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS/MSE/PHD student; IEE 505 with C or better
IEE	564	Planning -Cmpt-Integrated Mfg	Theory and use of IDEF methodology in planning for flexible manufacturing, robotics, and real-time control. Simulation concepts applied to computer-integrated manufacturing planning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	565	Cmpt-Integrated Mfg Research	Determination and evaluation of research areas in computer-integrated manufacturing, including real-time software, manufacturing information systems, flexible and integrated manufacturing systems, robotics, and computer graphics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student AND a grade of C or better in IEE 564.
IEE	566	Simulation in Manufacturing	Uses simulation in computer-integrated manufacturing with an emphasis on modeling material handling systems. Programming, declarative, and intelligence-based simulation environments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 475 or 545 with C or better
IEE	567	Simulation System Analysis	Simulation modeling of processes involving discrete and continuous system components. Topics include random number generators, output analysis, variance reduction, and statistical issues related to simulation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 475 or 545 with C or better
IEE	570	Advanced Quality Control	Process monitoring with control charts (Shewhart, cusum, EWMA), feedback adjustment and engineering process control, process capability, autocorrelation, selected topics from current literature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	571	Quality Management	Total quality concepts, quality strategies, quality and competitive position, quality costs, vendor relations, the quality manual, and quality in the services.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	572	Design Engineering Experiments	Analysis of variance and experimental design. Topics include strategy of experimentation, factorials, blocking and confounding, fractional factorials, response surfaces, nested and split-plot designs.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering graduate student
IEE	573	Reliability Engineering	Nature of reliability, time to failure densities, series/parallel/standby systems, complex system reliability, Bayesian reliability, and sequential reliability tests.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	574	Appl Deterministic Oper Rsch	Develops advanced techniques in operations research for the solution of complex industrial systems problems. Goal programming, integer programming, heuristic methods, dynamic and nonlinear programming.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Industrial Engineering MS, MSE or PhD student
IEE	575	Appl Stochastic Oper Rsch Mdls	Formulate and solve industrial systems problems with stochastic components using analytical techniques. Convolution, continuous-time Markov chains, queues with batching, priorities, balking, open/closed queuing networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IEE	576	Analy Semiconductor Mfg Oper	Applies operations research and statistical methods to solve problems that involve semiconductor manufacturing operations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	577	Adv Information System Oper	Industrial engineering knowledge and skills for information system operations, including aspects (security, quality of service, user interface, information modeling), problems, and solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 505 with C or better
IEE	578-M	Regression Analysis	Regression model building oriented toward engineers and physical scientists. Topics include linear regression, diagnostics, biased and robust fitting, nonlinear regression.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	579	Time Series Analy/forecasting	Forecasting time series by regression-based, exponential smoothing, and ARIMA model techniques; uses digital computer programs to augment the theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	581	Six Sigma Methodology	The six sigma process improvement strategy of define, measure, analyze, improve, and control (DMAIC). Integrates and deploys statistical methods and other six sigma problem solving via the DMAIC framework. Requires background in design of experiments, statistical quality control, and regression analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	582	Response Surfaces/Process Opt	Classical response surface analysis and designs including steepest ascent, canonical analysis, and multiple responses. Other topics include process robustness studies, robust design, and mixture experiments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD; IEE 572 with C or better
IEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	585	Six Sigma Capstone.	The DMAIC (define, measure, analyze, improve, control) improvement strategy is applied in the formulation and execution of a six sigma project.	N	PRA	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		Pre-requisite: Industrial Engineering MS, MSE or PHD student
IEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1.		
IEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		Pre-requisite: Engineering Graduate student
IEE	599-M	Thesis		Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	620	Optimization I	First course of the PhD-level deterministic course series. Covers foundations of optimization and linear programming. Prior working knowledge of linear algebra and knowledge of how to formulate linear programs is required for this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	670	Mathematical Statistics	Introduction to the field of mathematical statistics at a level intended for first-year PhD students in Industrial Engineering. Builds a solid background in the principles, concepts, and techniques of mathematical statistics. Prepares students for advanced study and research in statistics, and is useful for understanding statistical data analysis techniques and developing statistical thinking. Completion of at least one course in probability and statistics is required prior to taking this class.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		

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IEE	672	Adv Topics-Experimental Design	Multilevel and mixed-level factorials and fractions, design optimality, incomplete blocks, unbalanced designs, random effects and variance components, analysis of covariance.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 572 with C or better
IEE	677	Regression/Genrlzd Linear Mod	Theory of linear models including least squares, maximum likelihood, likelihood-based inference. Generalized linear models including Poisson and logistic regression, generalized estimating equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 578 with C or better
IEE	679	Time Series Analy/Control	Identification, estimation, diagnostic checking techniques for ARIMA models, transfer functions, multiple time series models for feedback and feedforward control schemes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 579 with C or better
IEE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		Pre-requisite: Industrial Engineering MS, MSE or PHD student
IEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-15		
IEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1.		
IEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-15		
IMD	564	Multimedia Applications in Instruction	Utilizes various forms of multimedia and authoring software to create materials and instruction. fee	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	566	Assessment and Evaluation of Media Applications	Examines a variety of strategies in assessing learning, collecting and evaluating data, and evaluating technology resources for classroom integration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	574	Organization and Administration of School Library Media	Explores the role of the school library media specialist and program as it relates to the educational community.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	576	Social and Ethical Issues in Educational Media	Examines the social, ethical, legal, and human issues surrounding the use of technology in K-12 schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
IMD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
IMD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
IMD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
IMD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		

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IMD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
IMD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
IMD	572	Media Collection and Development	Explores the identification, selection, acquisition, and evaluation of a collection of library resources for a specific community of users.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IND	120	Drawing for Industrial Design	Drawing as language to explore and communicate ideas. Development of drawing aptitude as language and process for industrial design thinking.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student
IND	121	Principles for Industrial Design I	Industrial design as a language and process for creative thinking and realization.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student; Co-requisite: IND 122
IND	122	Principles for Industrial Design II	Continued exploration of industrial design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student; IND 120 with C or better; Co-requisite: IND 121
IND	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
IND	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	227	Visual Methods for Problem Solving	Introduces conceptual design activity based on the mind-eye-media feedback loop. Graphic language used to represent conjecture, analysis, synthesis of objects, and their contexts.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student, IND 122 with C or better; Passed Milestone; Co-requisite: IND 260
IND	228	Imaging and Visualization	Design activities stressing graphic language abstraction practiced for presentation. Discusses structure of criticism, including description, interpretation, and evaluation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 227 with C or better; Co-requisite: IND 261
IND	236	Intro Cmptr Model-Indust Dsgn	Computers in industrial design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; Passed Milestone
IND	242	Materials and Design	Materials application in design. Introduces characteristics and properties of metals and organic materials, including plastics, and inorganic materials.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	243	Design for Ecology and Social Equity	Explores the role of design in the ecological crisis; materials, processes, strategies and methods to design more ecologically friendly and socially equitable products.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	260	Industrial Design I	Introduces the method and process of the industrial designer. Determinants necessary in small product design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 122 with C or better; Passed Milestone; Co-requisite: IND 227
IND	261	Industrial Design II	Issues of physical form development related to product and design; form development properties of paper, fibers, wood, metal, and plastics.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 260 with C or better; Co-requisite: IND 228
IND	316	20th-Century Design I	Modern European and American design from 1900 to 1940. Emphasizes transportation, product, furniture, exhibition, and graphic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	
IND	317	20th-Century Design II	Modern European, Asian, and American design since 1940. Emphasizes transportation, product, furniture, exhibition, and graphic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	
IND	327	Presentation Graphics	Studies methods for portfolio and professional product presentation using graphic media for information transfer. Stresses aesthetic judgment, organization, and craftsmanship.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student; Co-requisite: IND 360
IND	328	Graphics for Industrial Design	Investigates and applies applications and planning to the development of an identity for a product line structured as a system.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 327 with C or better; Co-requisite: IND 361
IND	344	Human Factors in Design	Man-machine environment systems; human characteristics and behavior applied to design of products, systems, and their operating environment.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	354	Principles of Product Design	Influences of physical and mechanical concepts in product design; mechanisms, kinematics, and fastening systems. Concepts of analysis for product design. Influences of concepts on aesthetics.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Pre-Industrial Design or Industrial Design BSD student; PHY 111 with C or better
IND	360	Industrial Design III	Methods of visual thinking, conceptualization, and ideation related to building skill levels in professional design presentation techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design student; IND 261 with C or better; Co-requisite: IND 327
IND	361	Industrial Design IV	Emphasizes developing ideas into a complete functional product, including survey and application of aesthetics, human factors, materials, and manufacturing. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design student; IND 360 with C or better; Co-requisite: IND 328
IND	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	460	Design Project I	Complete analysis of the product unit as an element of mass production, featuring marketing, technology, human factors, and visual design. Emphasizes professional standards. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design student; IND 361 with C or better; Co-requisite: IND 484; IND 470
IND	461	Design Project II	Product design, with emphasis in systems interaction. Culmination of design process and technique. Encourages individual project direction. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design BSD student; IND 460 with C or better

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IND	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
IND	465	Collaborative Design Dev II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
IND	470	Professional Practice for Industrial Design	Business procedures, management techniques, accounting systems, ethics, and legal responsibilities of the design professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	L	Pre-requisite: Industrial Design student; Co-requisite: IND 460 or Design Studies minor student
IND	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Industrial Design student; IND 361 with C or better; Co-requisite: IND 460
IND	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
IND	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
IND	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
IND	544	Human Factors Systems and Documentation	Advanced topics associated with theory and methods of human factors in design. Individual projects stressing problem organization, evaluation, and documentation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
IND	548	Design for Sustainable Development	Research on designing systems that are economically viable, ecologically friendly, and socially equitable.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
IND	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	111	Interior Design Issues and Theories	Interiors issues, theories, and philosophies. Emphasizes unique social and cultural factors that shape 20th-century design concepts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	
INT	120	Design Drawing and Media	Visual thinking: Development of freehand drawing techniques as a language and tool to explore, communicate, and process ideas.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Interior Design student
INT	121	Introduction to Computer Modeling for Interior Design	Computers in interior design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	CS	
INT	123	Introduction to Computer-Aided Design of Built Environments	Introduces AutoCAD computer-aided design principles and strategies for designers of the built environment.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	131	Design and Human Behavior	Applies conceptual design to issues of programming and space planning, user needs, and behavior.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	SB	
INT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
INT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	221	Principles of Design	Applied visual vocabulary: studio experience exploring applications, process and conceptual development of the principles of order and composition.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; INT 120 with C or better; Co-requisite: INT 222

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INT	222	Principles of Design Lecture	Applies the visual vocabulary: explores the principles of organization through examination of historical precedence and contemporary interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisite: Interior Design student; Co-requisite: INT 221
INT	223	Drafting for Interior Design	Orthographic, paraline, axonometric, and perspective projection; shades and shadows; and basic descriptive geometry for interior designers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Passed Milestone; Co-requisite: INT 261
INT	238	Intro to CAD	Introduces AutoCAD computer-aided design principles and strategies for designers of the built environment. Lecture, lab.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	253	Interior Materials, Finishes, and Specifications	Survey, evaluation, and specification of materials, finishes, and performance criteria for interiors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; INT 261 with a C or better; Co-requisite: INT 351
INT	261	Interior Design Studio I: Residential	Studio problems in interior design related to behavioral response in personal and small-group spaces.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Passed Milestone; Co-requisite: INT 223
INT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	310	History of Interior Design I	Design of interior spaces as an expression of cultural influences to 1835.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	Pre-requisites: ARS 102 with C or better
INT	311	History of Interior Design II	Design of interiors as an expression of cultural influences from 1835 to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	Pre-requisites: Must have completed INT 310 with a grade of C or greater or be currently enrolled
INT	320	Computer Modeling for Design Studies	Computers in design management, including software concepts, specific packages, problem solving, illustration, modeling, and animation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	341	Interior Codes: Public Welfare and Safety	Codes and regulations as performance criteria for interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	2.		Pre-requisites: Interior Design student; Corequisites: INT 352, INT 362, and INT 381
INT	351	Ambient Environment	Surveys environmental control systems, acoustics, and lighting issues.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Co-requisite: INT 253
INT	352	Construction Methods in Interior Design	Design theory related to analysis, materials, and building techniques of horizontal and vertical construction in interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Co-requisites: INT 341, INT 362 and INT 381
INT	354	Construction Documents	Elements of construction drawing sets, application of codes and specifications, and contract administration.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Interior Design student; Co-requisite: INT 363
INT	362	Interior Design Studio II: Hospitality and Retail	Investigates interior design issues in hospitality and retail environments. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; Co-requisites: INT 341, INT 352 and INT 381
INT	363	Interior Design Studio III	Explores the poetics of materials and their assemblage in the design of public and private spaces. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; INT 362 with C or better; Co-requisite: INT 354
INT	364	Interior Design Studio I	Studio problems in interior design related to behavioral response in personal and small group spaces. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		
INT	381	Preinternship Seminar	Preparation of internship materials that produce and enhance a successful internship experience.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisites: Must be one of the following plans: Urban Planning BSD, Landscape Architecture BSLA, Graphic Design BSD, Interior Architecture BSD, Architectural Studies BSD, Housing & Urban Development BSD or Alndustrial Design BSD
INT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	412	History of Decorative Arts in Interiors	Design of decorative arts as an expression of cultural influences and as an extension of interior spaces.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	Pre-requisite: INT 311 with C or better
INT	413	History of Textiles in Interior Design	Cultural and historical expression of textiles as related to interiors.	N	FLD	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: INT 412 with C or better
INT	415	Latin American Design	The impact of Latin American culture and civilization on design throughout the Americas.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Junior standing
INT	446	Furniture Design and Production	Design, construction, cost estimating, and installation in interior furniture and millwork.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design BSD, Interior Architecture BSD or Industrial Design BSD student
INT	464	Interior Design Studio IV: Work Environments	Studio problems in interior design-related issues in work environments. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; INT 363 with C or better; Co-requisites: INT 484; INT 471
INT	465	Interior Design Studio V: Institutional Design	Advanced interior design problem solving related to institutional facilities. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; INT 464 with C or better; Co-requisite: INT 472
INT	471	Facilities Management	Facility management process in large-scale organizations. Planning, long-range forecasting, and productivity. Project management methodologies using micro-based software programs.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design or Design Studies (Design Mngt) BA student and Senior standing
INT	472	Professional Practice for Interior Design	Business procedures, project control, fee structures, and professional product liabilities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	2.		Pre-requisites: Interior Design student; Co-requisite: INT 465
INT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Interior Architecture BSD student; DSC 483 or INT 381 with Y grade
INT	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
INT	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
INT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
INT	527	Contemporary Design Theory	Aesthetic, political, economic, and social theories that have shaped modern design; theory as the basis for design philosophies.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
INT	529	Design Criticism	Applies critical methods to design as material culture and human expression; evaluates achievement versus intention.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
INT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
INT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IPO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
IPO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
IPO	494	International Program Courses	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	598	International Program Courses	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	495	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IPO	495	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
IPO	496	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
IPO	496	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
IPO	596	International Programs	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
ITA	101	Elementary Italian I	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	102	Elementary Italian II	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	111	Accelerated Elementary Italian	Accelerated elementary Italian for experienced language learners. Emphasizes reading, writing, listening, speaking, and cultural proficiency.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ITA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	201	Intermediate Italian I	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on both spoken and written genres of Italian culture. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ITA	202	Intermediate Italian II	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on values of Italian culture. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ITA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ITA	311	Italian Conversation	Engages students in different oral/aural activities to reach an advanced proficiency level.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 202 with C or better
ITA	312	Italian Composition	Engages students in different written activities to reach an advanced proficiency level.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 202 with C or better
ITA	315	Italian Civilization	Students read and analyze texts and artifacts that represent important cultural and political movements of Italian civilization.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites:ITA 311, 312 with a grade of D or better, or enrolled, or ITA 314 with D or better or enrolled
ITA	319	Italian for Professions	Read and analyze texts and artifacts that represent important cultural and political movements of Italian civilization.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ITA 202 with C or better
ITA	321	Introduction to Italian Literature I	Studies the development of early Italian language, literature, and culture through reading, discussion, and writing activities in Italian.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	322	Introduction to Italian Literature II	Studies the development of modern and contemporary Italian language, literature, and culture through reading, discussion, and writing activities in Italian.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: ITA 202 with C or better
ITA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	413	Advanced Italian	Development and assessment of advanced spoken and written Italian proficiency through activities using all four skills.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 311 or 312 with C or better
ITA	420	Italian Cinema	Major trends of Italian cinema from the post-war period to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	425	Italian American Culture	Analyzes representations of Italian American history and culture in several media including literature, film, and television.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	
ITA	430	Italian Literature of the Middle Ages	Emphasizes Stil Novo, Dante's minor works, Petrarch, and Boccaccio.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	441	Dante: Divina Commedia	Critical reading of the three Cantiche (Inferno, Purgatorio, and Paradiso).	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	443	Italian Literature of the Renaissance	Emphasizes Lorenzo de'Medici, Poliziano Castiglione, Machiavelli, Ariosto, and Tasso.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	446	Italian Literature of the 18th and 19th Centuries	Goldoni, Parini, Alfieri, the poetry of Foscolo and Leopardi, and the sociohistorical novels of Foscolo, Manzoni, and Verga.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	449	20th-Century Italian Literature	Major works, figures, and movements of contemporary Italian literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ITA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
ITA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
ITA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ITA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ITA	594	Conf And Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	101	Elementary Italian I	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.		
ITA	102	Elementary Italian II	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.		
ITA	201	Intermediate Italian I	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on both spoken and written genres of Italian culture. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.	G	

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ITA	202	Intermediate Italian II	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on values of Italian culture. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.	G	
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JHR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	501	Proseminar in Social Justice and Human Rights	Classical and contemporary theories of social justice and human rights in the context of current local, national, and international issues. Special reference made to the roles of both governmental and nongovernmental organizations in addressing social justice and human rights issues.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	506	Grant Writing for Social Justice and Human Rights	Seminar in grant writing and fund raising for social justice and human rights. Provide an introduction to the grassroots grant writing and fund raising process, with a particular focus on justice-oriented nonprofit and international nongovernmental organizations.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	510	Problem-Based Seminar in Social Justice and Human Rights	Interdisciplinary seminar examines current problems in social justice and human rights from several different theoretical and analytical viewpoints. May be repeated once for credit.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	511	Community-Embedded Seminar in Social Justice and Human Rights	Interdisciplinary seminar requiring students to be placed in community organizations dealing with the course issue during the semester. Emphasizes developing effective strategies for partnerships with relevant community organizations and evaluating institutional settings, policies, and procedures from the perspective of social justice and human rights.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	525	Action Research in Social Justice and Human Rights	Advanced practicum in engaged, community-embedded research and interpretive analysis. Gives students experience in the practice of engaged fieldwork as well as the writing it generates.	N	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		

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JHR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1.		
JHR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
JHR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JMC	101	Grammar for Journalists	Grammar course specifically designed to help journalism majors master the essentials of grammar. All majors must achieve an 80 percent in the course, indicating a mastery of grammar, before they can move on to any other journalism courses. A test is offered during the first week of each semester's class so that students who feel they already have a mastery of grammar may attempt to test out.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	1.		Pre-requisite: Journalism and Mass Communication student
JMC	201	News Reporting and Writing	Basic news reporting and writing techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.	L	Pre-requisites: ENG 102, 105 or 107 and JMC 110 (or MCO 120) with C or better; JMC major; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA
JMC	320	Newscast Producing	Supervising editorial content of the television newscast. Focuses on writing, use of graphics, and video. Students learn how to design, write, and supervise the television newscast. In practical lab experience, students produce a live 30-minute television newscast airing in greater Phoenix. As must be current on news of the day both locally and nationally, and be prepared to supervise other students in the news-gathering process.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: Journalism major with a 2.50 GPA or higher; completed with a C or better JMC 315 AND JMC 425 or co-enrolled in JMC 315 and JMC 425
JMC	325	Multimedia Reporting	Gives students practical experience working in an online, multimedia environment. Helps sharpen skills and gives them a real-world view of how journalism works in the 21st century.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		
JMC	325	Multimedia Reporting	Gives students practical experience working in an online, multimedia environment. Helps sharpen skills and gives them a real-world view of how journalism works in the 21st century.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	460	Advanced Online Media	Covers online trends, Web design and usability, and copyright; legal, and ethical issues facing online journalists. Students critically examine journalistic Web sites and recognize excellence as well as mediocrity. Hands-on experience in using Photoshop, Dreamweaver, CSS, Soundslides, Final Cut, and Flash to produce original, compelling multimedia stories as well as an award-winning online magazine.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: Journalism and Mass Communication student; JMC 425 with a C or better or currently enrolled; 2.50 minimum cumulative GPA OR Graduate Mass Communication students
JMC	473	The Business and Future of Journalism	Exposes advanced journalism students to broad media management problems; helps students understand how essential the bottom-line and quality journalism are to the entire journalistic enterprise; helps students think about how to balance those two concerns.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: Journalism student; minimum cumulative GPA of 2.5; JMC 201 with C or better
JMC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	1-7		Pre-requisites: JMC student; Minimum 2.25 GPA; Successful completion of English proficiency exam OR Graduate Mass Communication student

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JMC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	1-3		
JMC	110	Principles and History of Journalism	Organization, function, and responsibilities of the media and adjunct services. Primary emphasis on newspapers, radio, television, and magazines. Credit is allowed for only JMC 110 or MCO 120.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	Pre-requisites: Journalism & Mass Communication student
JMC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisite: Journalism and Broadcasting student
JMC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
JMC	301	Intermediate Reporting and Writing (Print)	Intermediate news reporting and writing techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	L	Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	310	Public Relations	Theory and practice of publicity, public relations, and related techniques and procedures.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	313	Introduction to Editing	Copyediting and headline writing. Electronic editing on personal computer terminals. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Communication student; 2.50 minimum cumulative GPA; JMC 301 with a C or better or currently enrolled
JMC	315	Intermediate Reporting and Writing (Broadcast)	Intermediate broadcast news reporting and writing techniques with emphasis on audio. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	L	Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	330	Television Reporting	Writing, reporting and editing for television. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 315 and JMC 345 with C or better
JMC	332	Electronic Media Programming	Programming theory and evaluation, regulation, ethics, and responsibilities and basics of audience psychographics and effects.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 200 (or MCO 200) with C or better; Minimum 2.50 GPA
JMC	336	Station Operations	Basic understanding of the operations of a broadcast station. Examines internal organization structure and the relationship between each department.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 200 or MCO 200 with C or better
JMC	345	Videography	Develops an understanding of visual storytelling and how to craft a good, compelling story with pictures and sound. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA; JMC 201 with C or better
JMC	351	Photojournalism I	Basic camera, lighting, and scanning skills. Discusses ethics. Emphasizes shooting pictures for newspaper assignments on deadline. Students should have a 35mm (film) camera. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC students; JMC 201 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 101); Minimum 2.50 GPA
JMC	366	Journalism Ethics and Diversity	Explores contemporary news media ethical problems in a seminar setting. Uses journalism ethical perspectives to obtain keys to unlock contemporary dilemmas surrounding the news media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 110 with C or better; Minimum 2.50 GPA; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 300, JMC 315, TCM 300 or TCM 315 with C or better
JMC	402	Mass Communication Law	Legal aspects of the rights, privileges, and obligations of the press, radio, and television.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	L	Pre-requisites: JMC student; JMC 201 and ENG 102 with C or better; Minimum 56 hours; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA
JMC	412	Editorial Interpretation	The press as an influence on public opinion. Role of the editorial in analyzing and interpreting current events.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Prerequisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	413	Advanced Editing	Theory and practice of newspaper editing, layout and design, picture and story selection. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student, JMC 313 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	414	Graphic Design for Print and Web	Theory, organization, and practice of layout, typography, and design in traditional and multimedia publishing. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Comm student; JMC 201 with a C or better or be currently enrolled; successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); 2.50 cumulative GPA

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JMC	415	Writing for Public Relations	Development of specific writing techniques for the practitioner in public relations agencies and divisions of major organizations. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; JMC 270 or JMC 310 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	417	Public Relations Campaigns	Theory, principles, and literature of public relations and how they relate to audiences, campaigns, and ethics.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; JMC 270 or JMC 310 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	420	Reporting Public Affairs	Instruction and assignments in reporting the courts, schools, government, city hall, social problems, and other areas involving public issues. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student, JMC 301 with C or better; Minimum 2.5 GPA OR Graduate Mass Communication student
JMC	425	Online Media	Focuses on the Internet from the perspective of the journalist--the best way to tell a story using words, photos, video, and audio. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student; JMC 201 with C or better or currently enrolled; 2.5 cumulative GPA OR Graduate Mass Communication students
JMC	433	Media Sales and Promotion	Basics of electronic media marketing practices, including commercial time sales techniques and radio/TV promotion fundamentals.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Comm student, JMC 200 (or MCO 200) with a grade of C or greater or be currently enrolled; 2.5 cumulative GPA OR Graduate Mass Communication students
JMC	437	Documentary Production	Emphasizes individual production projects of the student's own conception and design utilizing studio, field, and postproduction techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.5 GPA; JMC 345 with C or better OR Graduate Mass Communication student
JMC	440	Magazine Writing	Writing and marketing magazine articles for publication. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.5 GPA OR graduate Mass Communication student
JMC	445	Science and Medical Writing	Develops writing, reporting, and an understanding of key concepts in science as they relate to medical science research and practice. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	451	Photojournalism II	Emphasizes shooting and Photoshop skills for newspaper and magazine assignments. Film and digital photography, flash and studio lighting. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communications student; JMC 351 with a C or better or currently enrolled; 2.5 minimum cumulative GPA OR Graduate Mass Communication student
JMC	452	Photojournalism III	Continued practice in shooting (film and digital) and Photoshop skills for newspapers and magazines. Emphasizes single images, picture stories, editorial illustrations, and portfolio development. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 451 with C or better OR Graduate Mass Communication student
JMC	465	Precision Journalism	Advanced reporting methods using Internet research and data analysis tools for beat and investigative stories. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Communication student; JMC 301 with a C or better or currently enrolled; 2.50 minimum cumulative GPA OR Graduate Mass Communication students
JMC	470	Depth Reporting	Introduces strategies for writing in-depth newspaper or magazine articles. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	472	Media Management	Management principles and practices, including organization, procedures, policies, personnel problems, and financial aspects of station management.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; MCO 200 (or JMC 200) with C or better; Minimum 2.50 GPA OR Graduate Mass Comm student
JMC	475	Television Newscast Production	Writing, reporting, and production of the television newscast. May be repeated once for credit. Fee.	N	LEL	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3-9		Pre-requisites: Journalism and Mass Communication student ; JMC 330 with C or better or currently enrolled; 2.50 cumulative GPA OR Graduate Mass Communication student
JMC	478	Cronkite News Service	Supervising editorial content of the television newscast. Focuses on writing, use of graphics, and video.	N	LEL	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3-9		Pre-requisites: Journalism and Mass Communication student; JMC 301 or JMC 330 with C or better
JMC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
JMC	492	Honors Directed Study		N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6		
JMC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisites: JMC student; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		
JPN	101	First-Year Japanese I	Basic speaking, listening, reading, writing, computer skills, and culture. Hiragana, katakana, 75 kanji. For students without previous Japanese instruction. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
JPN	102	First-Year Japanese II	Continued development of JPN 101 skills. 99 additional kanji. Communication skills goal: ACTFL Guideline Novice-Mid to Novice-High. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites: JPN 101 with a C or greater or in progress. Students may not take JPN 102 if they have received credit for JPN 201,202, 309,310,311,312,313,314,321
JPN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours

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JPN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	201	Second-Year Japanese I	Continued development in speaking, listening, reading, writing, culture, and computer skills. 74 additional kanji. Introduction to kanji dictionary. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: JPN 102 with a C or greater or in progress & may not enroll in class if received a D or better in JPN 202,309,310,311,312, 313,314,321
JPN	202	Second-Year Japanese II	Continued development of JPN 201 skills. 116 additional kanji. Communication skills goal: ACTFL Guideline Intermediate-Low to Intermediate-Mid. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: JPN 201 with a C or greater or currently enrolled
JPN	206	Japanese Calligraphy	Introduces Japanese calligraphy using traditional implements, starting with basic brush strokes and stroke order for kanji and kana.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		Pre-requisites: JPN 101 with C or better
JPN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	301	Third-Year Japanese I	Development of reading skills, using authentic materials to comprehend structure, grammar, idioms, and culture. Expansion of kanji and vocabulary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisite: JPN 202 with C or better
JPN	302	Third-Year Japanese II	Continued development of reading skills, as in JPN 301. Reading proficiency goal: ACTFL Guideline Intermediate-High.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 301 with C or better
JPN	309	Japanese Oral Communication I	Development of interpersonal, interpretive, and presentational oral/aural skills in familiar topics with sociolinguistic skills and understanding of Japanese culture. JPN 309 and 310 must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 202 with C or better
JPN	310	Japanese Oral Communication II	Continued development of oral/aural skills, with increased emphasis on honorifics. Speaking proficiency outcome goal: ACTFL Guideline Intermediate-High.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 309 with C or better
JPN	311	Japanese Composition I	Learning structural guidelines for narrative writing, developing organization skills to support ideas. Writing proficiency outcome goal: ACTFL Guideline Intermediate-High.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 202 with C or better
JPN	312	Japanese Composition II	Continued development of writing skills, introducing research and creative writing. Writing proficiency goal: ACTFL Guideline Intermediate-high to Advanced.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 311 with C or better
JPN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	401	Reading Modern Japanese Texts I	Readings in modern literary and expository texts. Focus varies from year to year.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	Pre-requisites: JPN 302 and SLC 202 with C or better
JPN	414	Introduction to Classical Japanese	Readings from various genres of pre-20th-century literature, with analysis of the structure of the classical language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 401 with a grade of C or better
JPN	415	Advanced Classical Japanese	Close readings of selected premodern texts, with focus on grammatical and stylistic features.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 414 with C or better
JPN	445	Readings in Modern Japanese Letters and Culture	Advanced study of selected facets of modern Japanese letters and culture, including literature, material and visual culture, film, and other media.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 401 and SLC 202 with C or better
JPN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	485	Literary Translation: Theory and Practice	Introduces theories and practice of literary translation, with an emphasis on the translation of Japanese literary texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 401 and SLC 421 with a C+ or better
JPN	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
JPN	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
JPN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
JPN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	520	Teaching of Japanese as a Second Language	Theory and practice of teaching Japanese, including presentation, interaction, and evaluation, with consideration given to cultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	535	Advanced Readings	Readings in primary and secondary sources in history, art, religious studies, literature, or other fields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

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JPN	543	Japanese Language and Linguistics	Analysis and discussion of linguistic theories applied to Japanese phonology, morphology, and syntax, including psychological, sociological, and historical aspects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	585	Advanced Problems of Translation	Theories and practice of translation; strategies for handling a variety of Japanese texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
JPN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	102	First-Year Japanese II	Continued development of JPN 101 skills. 99 additional kanji. Communication skills goal: ACTFL Guideline Novice-Mid to Novice-High. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.		
JPN	201	Second-Year Japanese I	Continued development in speaking, listening, reading, writing, culture, and computer skills. 74 additional kanji. Introduction to kanji dictionary. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
JPN	202	Second-Year Japanese II	Continued development of JPN 201 skills. 116 additional kanji. Communication skills goal: ACTFL Guideline Intermediate-Low to Intermediate-Mid. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
JUS	105	Introduction to Justice Studies	Introductory overview to the study of justice from a social science perspective. Primary topics include justice theories and justice research. Credit is allowed for only JUS 105 or 305. Appropriate for freshmen and sophomores.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Open to undergraduate students who have not received credit for JUS 305; Justice Studies students must have 56 or less earned hours
JUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Must have less than or equal to 25 earned hours
JUS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: Must have less than or equal to 25 hours
JUS	200	Topics in Concepts and Issues of Justice	Uses critical thinking skills to analyze and comprehend controversial social issues (e.g., abortion, affirmative action, capital punishment, the flat tax, and immigration).	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	207	Homicide and Serial Killers	Explores the scholarship, research and rational analysis of the mass, spree and serial killer. It will examine some of the causes and underpinnings of these killers within the U.S. as well as the major theories and understandings of this phenomenon.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	214	Justice Institutions	Introduces a wide variety of institutions and organizations--locally, nationally and internationally--that seek justice. Provides an understanding of the many ways justice is institutionalized in modern societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	222	Drugs and Justice	Provides an historical overview of the development and circulation of certain drugs; explores the more specific effects of drug use and abuse in everyday life; and examines the efforts by governments to both restrict/end and facilitate/expand the drug trade.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Credit is allowed for only JUS 200 (Drugs and Justice) or 222
JUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		

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JUS	301	Research in Justice Studies	Focuses on developing and evaluating research designs, data collection, and the relationship between validity and reliability. Stresses methods for conducting research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Justice Studies BS student with minimum 25 hours; specific students as determined by Justice Studies Dept with minimum 2.0 GPA and minimum 25 hours.; Non Justice Studies students with minimum 2.0 GPA and greater than 56 hours
JUS	302	Basic Statistical Analysis in Justice Studies	Introduces the fundamentals and application of descriptive and inferential statistics, with emphasis in the justice area.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	CS	Pre-requisites: Must have completed Intermediate Algebra or higher; Justice Stds student OR 2.0 GPA and 25 earned hours and specific students as determined by Justice Stds Depart. OR 2.0 GPA and more than 56 hours and not be a Justice Stds student.
JUS	303	Justice Theory	Examines classic and contemporary philosophies and theories of justice, including legal, social, and criminal justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-reqs: Justice Studies student with minimum 25 earned hours OR specific students as determined by Justice Stds Dept with minimum 2.00 GPA and 25 earned hours OR Non-Justice Studies student with minimum 2.00 GPA and minimum 56 hours
JUS	305	Principles of Justice Studies	Introductory overview to the study of justice from a social science perspective. Primary topics include justice theories and justice research. Credit is allowed for only JUS 305 or 105. Appropriate for juniors and seniors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: BS student in Justice Stds; have 25 or more earned hours OR 2.00 GPA; 56 or more earned hours and not be a BS student in Justice Stds. May not have received credit in JUS 105
JUS	306	Police and Society	Focuses on community policing; critical inquiry of administrative decision making; perspectives on police-citizen violence; street practices; urban policing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	308	Courts and Society	History and development of courts. Relationship between dispute resolution mechanisms and cultural/social structure/processes in which they are embedded.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	310	Corrections and Justice	Examines the United States prison condition; types of offenders; issues including drugs, gangs, drunk driving, racial discrimination, and "intermediate" punishments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	311	Crime, Prevention, and Control	Examines prevention and control of crime by a review of contemporary theories, justice agency procedures, and social policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	320	Community and Social Justice	Discusses and analyzes definitions of community; impact of environment on behavior; promises of community organization for local empowerment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	321	Wealth Distribution and Poverty	Examines wealth and income distribution in the United States and analyzes ideological and political forces producing an increasingly unequal society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	323	Justice and the Development of the Welfare State	Provides a comprehensive overview of the development of social welfare and relevant issues pertaining to social justice. Introduces upper-division students to different ideas about the meaning of social welfare in the context of the development of the U.S. welfare state.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	325	Globalization and Socio-Economic Justice	Addresses a trend producing increasing interconnectedness of economies and societies, as well as creating new conflicts and divisions. Provides greater understanding of global forces, as well as the effect of these forces on global economic justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	329	Domestic Violence	Legal, historical, theoretical, and treatment aspects of domestic violence, including child abuse, woman battering, incest, and marital rape.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	332	Politics of Energy Policy and Justice	Examines the social and political dimensions that shape energy and environmental policy. Focuses primarily on the U.S. Introduces elements of regional or global policy where they influence or shape domestic politics and policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	335	Organized Crime	Nature of organized crime and its illegal activities, theories of containment, and efforts by justice agencies to counter its dominance in society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	350	Immigration and Justice	Examines immigration policy, history of immigration, refugee issues, labor force participation, gender, family, children, social networks, and transnationalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	352	The Global Politics of Human Rights	Examines political forces that have shaped gradual construction of an international human rights regime and a universal culture of rights, including civil and political rights, as well as economic, social, and cultural rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	360	Law and Social Control	Resolution of social issues through the application of law as an agent of social control. Nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	374	The Holocaust, Genocide, and Human Rights	Explores the psychological, social, historical, and political dimensions of the Holocaust and the phenomenon of genocide. Also examines the more recent international cases of genocide along with a discussion and analysis of the Universal Declaration of Human Rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		

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JUS	375	Justice and the Mass Media	Surveys the impact of mass media and popular culture on social justice, including criminal justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	382	Justice and Pop Culture	Explores the connections between the production, reproduction, and consumption of popular culture and the resultant impact on issues of justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	385	Justice and Everyday Life	Justice and injustice in everyday life and how small things can become legal issues. Role of language and interaction in social order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: ENG 102, 105 or 108 with C or better; minimum 2.00 GPA; minimum 12 semester hours; If Justice Studies student, must be enrolled or earned J-1 Core Status or earned Capstone Status
JUS	404	Imperatives of Proof	Issues of evidence, rules of proof, establishing fact and identity in the justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	405	Economic Justice	Addresses economic issues and justice implications, including the interplay among economic conditions, race-ethnicity, class, and gender worldwide.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	408	Comparative Development of the Welfare State	Embodies a multidisciplinary perspective on welfare issues and exposes students to different ideas about justice beyond the United States. Allows them to better understand how and why states organize and deliver justice in different ways. Exposes students to cross-national variation in how history, culture, politics, and economics have shaped the development and content of different types of welfare states. Engages theoretical perspectives from political sociology and political economy concerning the emergence and future fate of these welfare states. Analyzes comparative analysis of three distinctive types of welfare states; Liberal, Conservative, and Social Democratic Welfare States, with particular emphasis on their varying capacity to combine economic efficiency with social justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	410	Punishment: Logic and Approach	Analyzes forms of punishment, how and why they have changed. Areas include philosophy, history, and social structure of punishment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	415	Gender and International Development	Examines the ways in which international development is gendered as well as women's rights as human rights in both national and international arenas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & G	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	420	Women, Work, and Justice	Examines gender inequality in the workplace, including the nature of women's work, theoretical issues, and models for promoting gender justice at work.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	422	Women, Law, and Social Control	Examines social, economic, and legal factors that are relevant to mechanisms of social control of women, including formal legal control and informal control through violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	425	Race, Gender, and Justice	Critically examines major theories, research findings, policies, and controversies concerning race, ethnicity, gender, and crime.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: ENG 102, 105 or 108 with C or better; minimum 2.50 GPA; minimum 24 semester hours; If Justice Studies student, must have be enrolled or earned Capstone status OR Graduate student
JUS	430	Social Protest, Conflict, and Change	Analyzes historical and contemporary protest movements advocating equality based on race, gender, and sexual orientation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	432	Racial Justice	Racial inequality remains a dominant theme in understanding social, legal, and economic justice in the U.S. today. Explores controversial topics surrounding race and justice. Emphasizes current legal, economic, political, and social conceptual frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	435	Cinema and Justice	Tracks the conceptualizations of justice that have been and are currently conveyed in film, including but not limited to the relationship between crime and various notions of justice. Other depictions include social issues such as gender, race, or economics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		

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JUS	438	Human Differences: Dilemmas of Justice	General examination of democracy and human differences that expands into in-depth investigations of (1) racial difference and identity politics; (2) gender and sexual difference in democracy; and (3) cultural difference and the multiculturalism debate.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	440	Administration and Justice	Diversity issues; procedural justice and service delivery; relationships between state and economic forces, including processes of regulation; state administrative apparatuses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	444	Environment and Justice	Explores issues of environment and justice. Topics include justice and environmental racism, future generations, nonhuman life, global/non-Western societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	445	Surveillance and Society	Explore how surveillance technologies alter social life; the complex ways that they interact to produce security, fear, control, and/or vulnerability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	450	Alternatives to Incarceration	Investigates various alternatives to incarceration; advantages/disadvantages; major issues including net widening, cost effectiveness, risk assessment, community crime prevention.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	452	Justice Issues in Israel and Palestine: The Political is Personal	Explores the justice issues related to the symbolic, historical, geographic, political, economic, religious, social ,and cultural meanings of Israel and Palestine. Focuses on how and why the "political" is felt so very personally in everyday life in Israel and Palestine.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	460	Feminism and Justice	Explores feminist thought and critiques traditional political theories. Examines issues of racism, sexuality, and the law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	463	Discretionary Justice	Use/abuse, key issues/manifestations of discretion in legal system and other societal institutions. Theoretical/empirical linkages between discretion and discrimination, based on race, ethnicity, and gender.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	465	Death Penalty in the United States	Focuses on capital punishment in the United States; explores negotiation of law, politics, morality, public policy, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	467	Terrorism, War, and Justice	Examines the relationship among terrorism, war, and justice. Analyzes terrorism within the larger study of deviance and social control, comparative politics, hegemony, and international law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	469	Political Deviance and the Law	Examines the controversies created by political and deviant behavior, including a critical view of law as an agent of social control.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	470	Alternative Dispute Resolution	Critical examination of the tenets of alternative dispute resolution movement; exposure to the programs of ADR, including community and court based.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	473	Religion, Violence, and Conflict Resolution	Focuses on the ambiguous, often confounding role of religion in local and global conflict and the pursuit of peace.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisite: ENG 102, 105 or 108 with C or better; non-JUS or specific students determined by JUS dept; min 56 hours; 2.50 GPA OR prof/capstone undergrad or Justice Studies graduate; Students with credit for REL 482 or POS 473, may not enroll in JUS 473
JUS	474	Legislation of Morality	Addresses historical and contemporary issues related to social justice movements, law, and morality in a pluralistic society. Issues include AIDS, burial rights, homosexuality, poverty, prostitution, and racial discrimination.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	477	Youth and Justice	Critical examination of youth-related justice issues, including economic justice, violence against youth, delinquency, and the juvenile justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L or SB	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	479	Law and Disputing	Critical analysis of the controversies created by disputes, law, and other forms of social control.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L or SB	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		Pre-requisites: Must be an Honors student
JUS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
JUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student

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JUS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		Pre-requisites: Must be an Honors student
JUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		
JUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
JUS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Justice Studies MS or PHD student
JUS	501	Justice Theory	Theories and philosophies of social, economic, political, and criminal justice. Applies theories to contemporary justice issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	503	Crime and Social Causation	Theories of deviance and crime as they relate to social policies and specific response of the justice complex.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	509	Statistical Problems in Justice Research	Methodological problems of research design and statistical methods specific to justice studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	521	Qualitative Data Analysis and Evaluation	Analyzes qualitative data, e.g., field notes, in-depth interview transcripts, document analysis, coding, and retrieval with a microcomputer; qualitative evaluation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	542	American Indian Justice	Provides a broad overview of American Indian and Alaskan Native issues of justice and injustice in contemporary society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	550	Gender, Race, and Economic Justice	Provides a critical social scientific perspective on economic issues particularly as they relate to gender, race, and class equality. Examines issues of economic inequalities as they are distributed along the lines of gender and race. Components converge to identify the social justice ramifications of economic policy and economic conditions.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	555	Migration/Immigration and Justice	Explores the causes and consequences of immigration to the United States and the incorporation of immigrants into the American economy and society.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	560	Women, Law, and Social Control	Gender issues in the exercise of formal and informal mechanisms of social control, including economic, social, legal factors, both violent and nonviolent.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	570	Juvenile Delinquency	Study of delinquency, including causation theories. Alternative definitions of delinquency, official statistics, and the critique and analysis of the interaction between social institutions and youth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	575	Race, Gender, and the Law	Explores the law and social sciences literature on race, ethnicity, gender, and the legal order. Critically assesses the major contemporary theoretical and policy debates and controversies in the field from a variety of disciplinary and interdisciplinary lenses, setting these debates in their historical contexts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	579	Political Deviance	Seminar examines the politics of deviance by integrating the study of conflict with aspects of social organization, especially state formation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	588	Justice and the Mass Media	Analyzes the nature and impact of mass media messages about justice concerns for social order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
JUS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
JUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	610	Law and the Social Sciences	Analyzes the theoretical grounds underlying diverse studies of law and society; creation and administration of law; and jurisprudence and politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	620	Justice Research Methodology	Covers the epistemology of knowledge and method in justice research, history, and philosophy of social science and critical inquiry, as well as perspectives that link these concerns to research strategies. Explores the strengths and weaknesses of introduced methodologies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 500 with C or better
JUS	630	Data Analysis for Justice Research	Bivariate and multivariate techniques of data analysis and hypothesis testing for justice-related research and use of information and statistical programs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 509 with C or better
JUS	640	Theoretical Perspectives on Justice	Analyzes philosophical perspectives of justice; linkages between social science theory and justice constructs; application of justice to social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 501 with C or better
JUS	650	Advanced Qualitative Data Analysis	Advanced qualitative data collection and analysis techniques, including ethnography, in-depth interviews, field notes, coding, transcribing, content analysis, textual analysis.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	660	Globalization and Economic Justice	Explores the political economy of globalization from a theoretical as well as practical standpoint. Sources used come from a variety of disciplines--sociology, political science, international relations, geography, and economics--all of which contribute unique theoretical and normative tools for analyzing the effect of global forces on economic justice.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student
JUS	669	Political Trials and Indigenous Justice	Focuses upon research on political trials, deviance, and conceptions of indigenous and contemporary justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
JUS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
JUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
KE	211	Chemical Process Calculations		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Chemical Engineering Program	2.		
KE	461	Process Control		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
KIN	100	Introduction to Health and Wellness	Current concepts in health, exercise, and wellness. Emphasizes personal health, theories, attitudes, beliefs, and behaviors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	
KIN	101	Introduction to Kinesiology	Introduces the disciplines and professions associated with kinesiology, including an overview of historical and philosophical foundations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		

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KIN	105	Physical Education Activity	Beginning instruction in a wide variety of sports such as aerobics, aquatics, racquet sports, physical conditioning, and golf. 3 hours per week. Y grade only. Fee.	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	105	Physical Education Activity	Beginning instruction in a wide variety of sports such as aerobics, aquatics, racquet sports, physical conditioning, and golf. 3 hours per week. Y grade only. Fee.	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	110	Research Analysis Laboratory	Introduces basic research areas in the discipline of kinesiology. Topics may include the following: developmental learning, exercise physiology, exercise psychology, exercise testing, metabolic physiology, motor control, motor learning, research journals and societies, research methods, research writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-2		Pre-requisites: Must be a student in one of the following: Pre Sec Ed - Physical Ed, Exercise Sci/Phys Educ or Kinesiology.
KIN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-3		Prerequisite: Must be a freshman with 25 or less total earned hours
KIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	205	Physical Education Activity	Intermediate levels. Continuation of KIN 105. 3 hours per week. fee	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	310	Collegiate Sports	Participation in men's or women's intercollegiate competition. May be repeated for 4 hours 1 per year. Y/E grade.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	334	Functional Anatomy and Kinesiology	Muscles, bones, joints, and nerves and how they produce movement. Emphasizes muscle origins, insertions, actions, and innervations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed BIO 201 or ZOL 201 with a grade of C or greater or be currently enrolled; Must have completed BIO 202 with a grade of C or greater or be currently enrolled
KIN	335	Biomechanics	Basic anatomical and mechanical principles applied to human movement. Emphasizes kinematic and kinetic concepts. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: BIO 201 (ZOL 201) and BIO 202, PHY 111, and KIN 101 (or KIN 200) with C or better; One of the following courses: MAT 170, 210, 251, 270, 271, or 272 with a C or better
KIN	340	Physiology of Exercise	Physiological mechanisms of acute responses and chronic adaptations to exercise. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: KIN 101 (or KIN 200), BIO 201 (ZOL 201) and BIO 202 (ZOL 202) and one of the following courses: CHM 101, 113, 114, 115, 116, 117, or 118 with C or better
KIN	345	Motor and Developmental Learning	Principles of motor skill acquisition across the life span, focusing on the learner and the learning environment. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: KIN 101 (or KIN 200) with a C or better; PGS 100 or PGS 101 with a C or better; BIO 201 (ZOL 201) with a C or better
KIN	348	Psychological Skills for Optimal Performance	Applies psychological techniques and their use to improve effectiveness and performance in sport and related areas.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	
KIN	352	Psychosocial Aspects of Physical Activity	Interrelationships between physical activity and psychosocial variables, including socialization, cultural values, aggression, and motivation. Includes the psychological benefits of physical activity and exercise adherence.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB & C	Pre-requisites: KIN 101 (or KIN 200) with C or better; PGS 100 or PGS 101 with C or better
KIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	412	Biomechanics of the Skeletal System	Biomechanics of tissues, structures, and major joints of the musculoskeletal system. Discussion of injury mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed KIN 335 with a grade of C or better; If you received credit in KIN 512, you may not enroll in KIN 412
KIN	413	Qualitative Analysis in Sport Biomechanics	Develops systematic approach for detecting and correcting errors in human performance using anatomical and mechanical principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 335 or KIN 335 with a grade of C or greater or be currently enrolled in KIN 335
KIN	414	Electromyographic Kinesiology	Muscular contributions to human movement, muscle mechanics, electrophysiological basis, and practical application of electromyography. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 335, KIN 335 or PED 335 with a grade of C or greater or be currently enrolled in KIN 335; Must have completed EPE 240, KIN 340 or PED 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	421	Human Motor Control	Focuses on understanding how the human central nervous system controls, regulates, and learns movements.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	422	Motor Control in Special Populations	Discusses principles of motor control theories and related practical applications for certain special developmental populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	423	Motor Control and Aging	Functional and behavioral changes to the motor control system as humans age, how specifically it impacts motor control and learning.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	440	Exercise Biochemistry	Study of bioenergetics and metabolism of cellular (skeletal muscle, heart, and liver) organelles and proteins during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater in KIN 340. Students who have credit for KIN 532, may not enroll in KIN 440
KIN	441	Physiology of Women in Sport	Physiological aspects of women engaging in physical activity. Emphasizes factors affecting performance and health throughout life.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater in KIN 340. Students who have credit for KIN 531, may not enroll in KIN 441
KIN	442	Fuel Metabolism	Discusses current research concerning the metabolism of carbohydrate, fat, and protein during exercise. Credit is allowed for only KIN 442 or 536.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater in KIN 340. Credit is allowed for only KIN 442 or 536.
KIN	443	Exercise Endocrinology	Discusses current research and theory concerning hormonal changes during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or better in KIN 340. Students who have credit for KIN 533, may not enroll in KIN 443
KIN	444	Metabolic Adaptations to Exercise Training	Examines physiologic adaptations to exercise training as they relate to metabolism and tissue functions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340

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KIN	445	Exercise Physiology for Children and Adolescents	Understanding the influence of physical growth and maturation on the development of the functional capacities of the exercising child. Credit is allowed for only KIN 445 or 535.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	448	Applied Sport Psychology	Psychological theories and techniques applied to a sport to enhance the performance and personal growth of athletes and coaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 352, PED 352 or KIN 352 with a grade of C or greater in KIN 352. Students who have credit for KIN 520, may not enroll in KIN 448
KIN	450	Biopsychosocial Perspectives on Physical Activity and Health	Uses a biopsychosocial perspective to examine the interrelationships on physical activity and health (physical and mental).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 352 or KIN 352 with a grade of C or greater or be currently enrolled in KIN 352
KIN	452	Exercise Psychology	Contemporary research and theory as related to human behavior and health in an exercise setting.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	Pre-requisites: Must have completed EPE 352, PED 352 or KIN 352 with a grade of C or greater in KIN 352. Students who have credit for KIN 522, may not enroll in KIN 452
KIN	460	Theory of Strength Training	Research and theories on developing muscular strength; programs for developing muscular strength.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-6		Pre-requisites: Must be an Honors student
KIN	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-6	L	Pre-requisites: Must be an Honors student
KIN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		Pre-requisites: Academic Level may not equal Freshman
KIN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-7		Pre-requisites: Must be BS Kinesiology student; Seniors only
KIN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-3		
KIN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	501	Research Statistics	Statistical procedures; sampling techniques; exercise testing, exercise prescription, hypothesis testing, and experimental designs as they relate to research publications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	505	Applied Exercise Physiology Techniques	Investigative techniques used in the applied exercise physiology lab. Emphasizes pulmonary function, body composition, and cardiorespiratory assessment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	510	Introduction to Biomechanics Research Methods	Applies mechanics to human movement analysis. Includes consideration of 2-D imaging techniques, force measurement, electromyography, and data processing methods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	512	Biomechanics of the Skeletal System	Biomechanics of tissues, structures, and major joints of the musculoskeletal system. Discusses injury mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 412 or 512
KIN	520	Sport Psychology	Current research in sport psychology with an emphasis on performance enhancement. Includes questionnaire, psychophysiological, and behavioral research methods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 448 or 520
KIN	521	Motor Development, Control, and Learning	Theory and research on motor skill acquisition, including learning/control and development (i.e., growth, children and exercise, and development learning).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	4.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	522	Exercise Psychology	Contemporary research and theory as related to human behavior and health in an exercise setting.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 452 or 522
KIN	530	Exercise Physiology	Immediate and long-term adaptations to exercise with special reference to training and the role of exercise in cardiovascular health.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	531	Physiology of Women in Sport	Physiological aspects of women engaging in physical activity. Emphasizes factors affecting performance and health throughout life.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 441 or 531
KIN	532	Exercise Biochemistry	Understanding the basic biochemical principles and enzyme pathways involved in energy transduction during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 440 or 532
KIN	533	Exercise Endocrinology	Discusses current research and theory concerning hormonal changes during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 443 or 533
KIN	535	Exercise Physiology for Children and Adolescents	Understanding the influence of physical growth and maturation on the development of the functional capacities of the exercising child. Credit is allowed for only KIN 535 or 445.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)

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KIN	536	Fuel Metabolism	Discusses current research concerning the metabolism of carbohydrate, fat, and protein during exercise. Credit is allowed for only KIN 536 or 442.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking). Students who have credit for KIN 442, may not enroll in KIN 536
KIN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Kinesiology	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	598	Special Topics	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	610	Advanced Topics in Biomechanics	3-D imaging techniques, data analysis theory, and integration of biomechanics research tools; includes original research project.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	621	Motor Learning/Control	Discussion of contemporary research issues in motor learning and control. Includes behavioral and neurophysiological issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Kinesiology	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Kinesiology	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KOR	101	First-Year Korean I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills, including Han'gul. Lecture, recitation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
KOR	102	First-Year Korean II	Continuation of KOR 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:KOR 101 with a grade of D or better, or currently enrolled
KOR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	201	Second-Year Korean I	Continual development of communication skills. Increased emphasis on reading and writing, vocabulary building, and review of fundamentals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: KOR 102
KOR	202	Second-Year Korean II	Continuation of KOR 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: KOR 201

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
KOR	250	Korean Culture and Society	Surveys Korean culture and society, covering history, religious traditions, gender, and popular culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
KOR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	313	Third-Year Korean I	Continued development of ability to communicate orally and in writing. Exposure to a variety of Korean written styles.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: KOR 202
KOR	314	Third-Year Korean II	Continuation of KOR 313.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: KOR 313
KOR	347	Korean Film and Literature	Introduces aspects of Korean history, culture, and society through Korean film and literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	
KOR	350	Women of Korea	Examines the changing role and status of women in modern Korea in relation to political and cultural changes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	H	
KOR	353	Folk Religions of Korea	Introduces forms of folk religions in Korea: shamanism, village rituals, ancestor-worship, fortune-telling, geomancy, and folk elements in major traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
KOR	354	Religious Traditions of Korea	Examines major religious traditions of Korea: Buddhism; Christianity; Neo-Confucianism; indigenous practices and their development through political, cultural, and social frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
KOR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
KOR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
KOR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
KOR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
KOR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAA	345	Professional Practice Seminar	Landscape architecture practice including contracts, project and office management, liability, licensing, and professional development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Landscape Architecture student; Co-requisite: LDE 362
LAA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Landscape Architecture BSLA plan; Co-requisite: LDE 461
LAP	485	International Field Studies in Landscape Architecture	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	Y	FLD	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
LAP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LAP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LAP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAT	101	Elementary Latin	Basic Latin grammar with an emphasis on developing reading skills. For beginning students only.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
LAT	102	Elementary Latin	Continuation of LAT 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: LAT 101
LAT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
LAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	201	Intermediate Latin I	Final semester of grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	HU	Pre-requisites: LAT 102
LAT	202	Intermediate Latin II	Beginning reading of Latin authors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	HU	Pre-requisites: LAT 201
LAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	421	Roman Literature	Readings in the Latin masterpieces. Authors read change each year in accordance with needs of the class. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: LAT 202
LAT	422	Roman Literature	See LAT 421.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: LAT 202
LAT	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
LAT	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
LAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
LAT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
LAT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
LAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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LAW	105	The Structure and Methodology of the American Legal System	What is law? What is the structure of the American legal system? What does it mean to understand law in the context of that system? How is this system effective and problematic and how does its evolution over time change our perceptions of and relationships with those who are part of it? Provides answers to these and other questions while simultaneously developing a working understanding of American law, its practicalities, and externalities. Takes the form of a comprehensive inquiry into the legal system, its origins, structures, applications, success, failure, and decision-making processes. In asking probing questions about the system and its nature, explores the values and philosophies that inform our American conception of the law and its role in society.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	3.		
LAW	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	College of Law Dean's Office	1-4		
LAW	614	International Contracts	Explores the laws applicable to international contractual relations, focusing heavily on the United Nations Convention on Contracts for the International Sale of Goods. One of several offerings in the field of International Business Transactions, touches on choice of law rules and a comparison of selected UCC with CISG provisions; a comparison of the contract law of selected foreign nations with the UCC; and the law of contracts in the United States. The casebook is heavily oriented toward a problem method of study.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	641	Securities Regulation II	Securities laws affecting the purchase and sale of publicly-traded securities.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	659	Intellectual Property Portfolio Management	Covers business/law dynamics in the technology sector.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	1-4		
LAW	660	Advanced Estate Planning	Covers advanced estate planning and estate administration issues.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	661	Constitutional Literacy	Academic complement to the Marshall-Brennan Constitutional Literacy Program where law students teach constitutional law to high school students.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	1-3		
LAW	662	Alternative Dispute Resolution and Employment Law	The use of alternative dispute resolution has been most extensive in the area of employment law. Mediation and arbitration are widely used not only in the collective bargaining setting, but also in virtually every aspect of the employment relationship. Offers a comprehensive review of the subject with special emphasis on the extensive body of law that has developed in regulating employer-imposed arbitration. Discussion of mediation includes use of simulations to enable the students to understand how mediation can effectively resolve employment disputes. Opportunities to observe real mediations of employment disputes. Experienced attorneys discuss the "real world" use of employment ADR from a plaintiff's and a defendant's perspective.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	663	Prisoner Rights	Provides overview and basic understanding of the rights of prisoners within the United States penal system. Emphasizes prisoners' civil rights under the U.S. Constitution and 42 U.S.C. Section 1983, including claims such as access to courts, conditions of confinement, religious freedoms, excessive use of force, ineffective medical assistance. Analyzes prison culture and models for reform, state post-conviction rights of appeal, the death penalty, parole, and commutation. Includes optional tour of a maximum security prison (which is much different from the county jail tour) and guest speakers (correctional officers and former inmates).	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	664	Intellectual Property	Surveys the laws conventionally grouped as intellectual property, with a focus on patents, copyrights, and trademarks. Explores the policy rationales for each body of law. Particularly relevant for two types of students: (a) those who are unsure they want to specialize in IP and want a general introduction, and (b) those who do not have room in the schedules to take all of the upper-level offerings here at ASU. Not appropriate for students who have already taken the upper-level courses in copyright, trademark, and patents; students who have taken these offerings may be withdrawn.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-4		
LAW	665	Fundamentals of Legal Drafting	Fundamental writing skills applicable to drafting normative legal documents.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	1-3		
LAW	718	Economic Development in Indian Country	Focuses on the unique legal, economic, and political issues confronting tribal governments in developing diversified reservation economies.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	719	International Indigenous Rights	Examines the developments in recognizing indigenous rights in people's systems of international law.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LAW	725	Critical Race Theory	Focuses on the idea of "race" as a social/political construct and examines the impact of American law on the construction of race. Provide historical and legal background necessary to understand the significance of race within American law and policy. Evaluate a number of legal frameworks that address issues of race and ethnicity in various contexts (e.g. segregation laws, civil rights law, federal Indian law, international human rights law). Assesses various jurisprudential accounts evaluating the ethical and moral underpinnings of the law. Critical race theory is known as a jurisprudential framework that is often critical of standard liberal approaches. Evaluates the critiques of liberalism and the scholarship of both liberal and critical theorists.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	736	Advanced Legal Research Seminar	Focuses on a rigorous review of basic print and electronic resources and strategies for conducting legal research, federal/state.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	2-3		
LAW	737	Cults and Alternative Religions	Provides opportunity to study laws and policies governing cults. While the definition of a "cult" will be a topic of initial study in the seminar, it may be conceived of loosely as a group with a charismatic leader whose members are persuaded to relinquish their self-identities and material possessions in furtherance of the group's goals. In addition to analyzing the definition of a cult, the first part of the seminar discusses the various types of cults, studying particular cults, and learning about cultic activities. The remainder covers domestic and foreign legal and policy issues generated by cults, including the legal rights of cultic organizations, anti-cult organizations, cult members, and cult members' families. Covers conventional religions that are conceptually similar to cults, to the degree that religious movements fall outside the mainstream.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-4		
LAW	739	Economics and the Law Seminar	Explores premises of the law and economics movements and their applications to property, contract, and tort law.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	776	Indian Legal Clinic	Provides law students the opportunity to participate in cases dealing with native peoples and Indian issues.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	1-6		
LAW	777	Technology Ventures Clinic	Allows students to gain real-world experience in legal areas such as patentability of inventions, patent drafting, and technology valuation.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	1-6		
LAW	778	Immigration Law and Policy Clinic	Live-client clinic where students represent Latinos, particularly children, in immigration proceedings and the immigration courts.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	1-6		
LAW	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	LAW	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OP6	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	515	Contracts	Explores common law legal method and the structure of Article 2 of the U.C.C. in the context of issues of contract formation.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3-5		
LAW	516	Criminal Law	Substantive law of crimes.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	517	Torts	Legal protections of personality, property, and relational interests against physical, economic, and emotional harms.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	518	Civil Procedure	Explores the structure of a lawsuit and techniques of alternative dispute resolution. Specific topics include commencement of suit, joinder of parties, discovery, pretrial motions, subject matter and personal jurisdiction, res judicata, collateral estoppel, and choice of law under the Erie doctrine.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3-5		
LAW	519	Legal Method and Writing	Examines methods used to analyze legal problems. Reviews precedent statutory construction and basic res judicata problems. Use of basic legal writing formats.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	520	Contracts	Continuation of LAW 515 focusing on contract interpretation.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	522	Constitutional Law I	Role of courts in the federal system, distribution of powers between state and federal governments, and the role of procedure in litigation of constitutional questions.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	523	Property	Indicia of ownership, found property, estates in land, landlord tenant, nonpossessory interests in property, nuisance, land use planning, and transfers of interests in property.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	524	Legal Advocacy	Continuation of LAW 519.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	526	Property	Nonpossessory interests in property (easements, covenants, servitudes); nuisance; land use planning; and transfers of interests in property.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2-3		

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LAW	527	Civil Procedure	Continuation of LAW 518; addressed subjects in LAW 518 in greater depth as well as personal jurisdiction, res judicata, collateral estoppel, and choice of law under the Erie doctrine.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	529	Law and the Regulatory State	Introduces the importance, origins, and methods of interpreting statutes, regulations, and court rules.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	OP6	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	597	Visiting Student Program		N	LEC	N	GNA	College of Law	Sandra Day O'Connor College of Law	0.		
LAW	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OP6	College of Law	Sandra Day O'Connor College of Law	1-4		
LAW	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	601	Antitrust Law	Legislation and its implementation to prevent monopoly and business practices in restraint of trade, including restrictive agreements involving price-fixing, trade association activities, and resale price maintenance.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisites: College of Law student
LAW	603	Conflict of Laws	Problems arising when the operative facts of a case are connected with more than one state or nation. Choice of law, bases of jurisdiction, effect of foreign judgments, and underlying federal and constitutional issues.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	604	Criminal Procedure	Nature of the criminal procedural system with special focus on constitutional protections for the accused.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisites: College of Law student
LAW	605	Evidence	Principles and practice governing the competency of witnesses and presentation of evidence, including the rules of exclusion and roles of lawyer, judge, and jury under the adversary system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisites: College of Law student
LAW	606	Federal Income Taxation	Federal income tax in relation to concepts of income, property arrangement, business activity, and current tax problems, with focus on the process of tax legislation and administration.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisites: College of Law student
LAW	608	Business Associations I	Partnerships, limited partnerships, and small business corporations. Includes a brief introduction to accounting. Detailed analysis of the problems of forming a close corporation, state law duties of care and loyalty, management, dividends and redemptions, issuance of stock, internal dispute resolution, dissolution, and the general law of derivative actions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisites: College of Law student
LAW	609	Business Associations II	Interrelationship of federal and state law and a brief introduction to corporate finance (1933 Act). Broad overview of large company regulations including reporting rules, proxy regulation, insider trading, sale of control, tender offers and takeovers, and going private.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisites: College of Law student
LAW	610	Advanced Criminal Procedure	Topics in criminal procedure, with emphasis on legal constraints on grand jury investigations, police practices, pretrial release, preliminary hearings, prosecutorial discretion, and plea bargaining.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	611	Estate and Gift Tax	Tax laws relating to transfer of wealth both at death and during lifetime, including federal estate tax, gift tax, and income taxation of estates and trusts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: Must be College of Law student
LAW	612	Family Law	Legal and nonlegal problems that an individual may encounter because of a situation as a family member.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	613	Federal Courts	Federal judicial system; relationship of federal and state law; jurisdiction of federal courts and their relation to state courts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	615	Public International Law	Role of law in international disputes. Considers drafting and interpretation of treaties and multilateral conventions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	616	Jurisprudence	Introduces legal philosophy, with readings on the nature of law and legal reasoning, the relationship between law and morality and equality and social justice.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	617	Genetics and the Law	Provides background on genetics and recent genetic advances; addresses the legal consequences and issues associated with such advances.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student

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LAW	618	Decedent's Estates	Substantive concepts involved in transmitting wealth, including interstate succession, wills and will substitutes, the modern trust as a family protective device, creation of future interests in a planned estate, social restrictions of a nontax nature, and methods of devoting property to charitable purposes.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	619	Payments	Law of credit obligations and payment devices. Focuses on Articles 3, 4, and 4A of the Uniform Commercial Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	620	Civil Rights Legislation	Coverage of the rights and remedies provided by federal civil rights legislation, principally, the key provisions of the Reconstruction Era Civil Rights Acts, portions of the employment discrimination legislation, and voting rights legislation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	621	Sales	Advanced issues involving the formation and interpretation of sales and lease contracts. Focuses primarily on Articles 2 and 2A of the Uniform Commercial Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	622	Secured Transactions	Secured transactions under Article 9 of the Uniform Commercial Code and other relevant sections. Overview of the creation, perfection, and priority effects of security interests. Financing of business enterprise and consumer credit.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	623	Commercial Torts	Involves an analysis of actionable wrongs against a business entity or against proprietary rights held by that entity, covering the entire spectrum of private remedies for competitive wrongs.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	624	Community Property	Property rights of husband and wife; the Arizona community property system; homestead.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-2		Pre-requisite: College of Law student
LAW	625	Constitutional Law II	Fundamental protection for person, property, political, and social rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	627	Corporate Taxation	Problems in taxability of the corporation, corporate distributions, and corporate reorganizations.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	628	Creditor-Debtor Relations	Creditors' remedies in satisfaction of claims and debtors' protection and relief under bankruptcy, other laws.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	629	Employment Law	Employment law topics including testing, privacy, OSHA, FLSA, benefits, worker's compensation, rights to compensation, workplace emotional injuries, termination, and sexual harassment.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	630	Employment Discrimination	Focuses primarily on Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, and the Americans with Disabilities Act.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	631	Environmental Law	Litigation, administrative law, and legislation relating to problems of environmental quality. Topics covered may include air and water pollution, toxic substances, pesticides, and radiation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	632	Indian Law I	Inquiry into legal problems special to American Indians and tribes.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	633	Law, Litigation, and Science	Fills a gap in the education of most lawyers, namely, how to effectively think about and use empirical evidence.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	635	Juvenile Law	Special problems in the juvenile system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	636	Land Use Regulation	Legal problems in the regulation and control of land development by state and local governments. Administration of zoning, subdivision, and other planning controls; issues of fairness and procedure in the utilization of such controls.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	637	Lawyering Theory and Practice	Issues of competency and professionalism in the practice of law.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	4.		Pre-requisite: College of Law student
LAW	638	Professional Responsibility	Emphasizes the Model Rules and Model Code that govern the professional responsibility of lawyers and their interpretation and application.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	639	Natural Resource Law	Examines the constitutional basis for federal land management and the different kinds of public lands management schemes (e.g., parks, forests, wildlife refuges), emphasizing acquisition of right to, and regulation of, the different uses of public lands and resources (e.g., mining, grazing, timber, wildlife habitat, recreation).	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	640	Securities Regulation	Selected problems arising under the major statutes concerned with regulating the securities market.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	642	White Collar Crime	Examines the ways in which white collar crime is prosecuted, principally in the federal system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	643	Water Law	Acquisition of water rights; water use controls; interstate conflicts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	645	Patent Law	In-depth examination of substantive patent law as it applies to the commercialization and enforcement of patent rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student

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LAW	646	Copyright Law	Legal rights in original forms of human expression.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	647	Mass Tort Litigation	Examines unique procedural and substantive issues that arise in mass tort litigation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	648	International Intellectual Property	Considers patents, copyrights, and trademarks under international law and the major international treaties.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	649	Scientific Evidence	Examines the use of scientists and scientific tests or studies in criminal and civil litigation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	650	Health Law	Introduces health law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	651	Public Health Law	Addresses the relationship between the state and the population's health.	N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	652	Bioethics and the Law	Covers a range of issues relating primarily to human reproduction and life and death decisions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	653	Bankruptcy	Covers basic bankruptcy law and practices.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	654	Business Organizations	Covers the primary forms of business organizations: partnerships, limited partnerships, limited liability companies, and corporations.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	655	Chapter 11	Covers the law and practice of reorganizing business entities under Chapter 11 of the United States Bankruptcy Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	656	Valuing Real Estate and Closely-Held Businesses	Focuses on the valuation of interests in real property and closely-held businesses.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	657	Private Property Rights	Explores the conflict between property rights and the right of the government to acquire private property for public use.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	658	Arizona Constitutional Law	Examines the basic provisions of the Arizona Constitution and the judicial decisions interpreting those provisions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre Requisites: Law Students Only
LAW	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	697	Visiting Student Program		N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	0.		
LAW	701	Arbitration	Examines the Federal Arbitration Act and the Uniform Arbitration Act as it has been adopted in Arizona.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	702	Alternative Dispute Resolution	Broad exposure to methods of settling disputes in our society such as mediation, arbitration/conciliation, and negotiation, including examination of the current litigation model.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	703	Law, Science, and Technology	Legal mechanisms used in dealing with various issues raised by contemporary science and technology. Explores current legal responses to science and technology.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	704	Indian Law II	Surveys the federal legal doctrines surrounding Indian ownership and exploration of resources.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	705	Media Law	Examines First Amendment principles and statutory and regulatory requirements with respect to the conventional print and broadcast media, as well as recent technologies such as cable.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	706	Immigration Law	Explores political, economic, social, and legal issues concerning immigration. Specific topics covered include citizenship and naturalization, denaturalization, deportation, and refugee rights and asylum.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	707	Elder Law	Looks at legal and policy questions related to aging individuals and an older society.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	708	Gender, Sexuality, and the Law	Examines assumptions made in the law about gender and sexuality and the impact of those assumptions on the application of the law.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	709	International Human Rights	International rules and procedures governing the protection of human rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	710	Real Estate Tax Planning	Discusses topics, including but not limited to real estate investments as tax shelters, alternative acquisition finance devices, refinancing techniques, and nontaxable exchanges.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	712	Religion and the Constitution	In-depth study of the establishment and free exercise clauses of the First Amendment to the U.S. Constitution.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	713	Tribal Law and Government	Analyzes particular problems in tribal law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	715	Sports Law	Unique legal problems relating to professional sports, including their relationship to antitrust laws, the nature of player contracts, and associated tax problems.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		

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LAW	720	Indian Gaming Law	Surveys the law surrounding the Indian gaming industry.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	721	Education and the Law	Current legal problems affecting institutions of higher education, faculty, students, and governing boards.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	722	Mexican Law	Comparative overview of Mexican law. Poses questions regarding the proper role and function of a legal system.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	723	Cultural Resources Law	Focuses on the protection of Native American cultural resources and religions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	724	Privacy	Traces the development of privacy law with special attention to contemporary challenges.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	733	Negotiation	Explores alternative models of negotiated dispute resolution, as well as the roles of lawyer and client in the negotiation process. Extensive use of simulation exercises.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	734	Products Liability	Traces the development of products liability law; analyzes the major issues currently confronting the courts in this area.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	735	Writing TA	Legal writing teaching assistants assist a writing professor with various tasks throughout the semester.	N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	738	Trial Advocacy	Confronts issues of trial advocacy through simulation of a variety of aspects of trial practice in a mock court setting.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	745	The Supreme Court	Intensive examination of selected current decisions of the U.S. Supreme Court.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	768	International Business Transactions	Introduction to U.S., foreign, and international law regulating cross-border business transactions and to the structure of cross-border business deals.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	770	Law Journal	Academic credit for successful completion of editorial work by a member of the staff of Arizona State Law Journal. May be repeated for credit for a maximum of 5 semester hours.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		Pre-requisite: College of Law student
LAW	771	Jurimetrics Journal	Academic credit for successful completion of editorial work by a member of the staff of the Jurimetrics Journal of Law, Science, and Technology.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	1-3		Pre-requisite: College of Law student
LAW	772	Defender Clinic	Placement in the Public Defender Clinic and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	773	Civil Justice Clinic	Placement in the Civil Practice Clinic and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	774	Criminal Practice Clinic	Placement with various prosecutor offices in the Phoenix area and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	775	Mediation Clinic	Study of the mediation process and experience as mediators in cases pending before the justice courts and administrative agencies.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	781	Independent Study	With the approval of a faculty member, a student may research a legal subject of special interest and prepare a paper suitable for publication.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	782	Independent Study	See LAW 781.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	783	Field Work	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	785	Externship	Supervised, practical lawyering in an external placement proposed by the student or established by a sponsoring agency and approved by the Sandra Day O'Connor College of Law. In addition, an associated academic component is established by the student with a member of the faculty.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	795	Cont Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	College of Law	Sandra Day O'Connor College of Law	1.		
LAW	797	Visiting Student Program		N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	0.		

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LDE	361	Landscape Architecture I	Site planning: analysis of natural and cultural features; site systems and implications for plan making and design. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture students only; Co-requisites: LTC 343
LDE	362	Landscape Architecture II	Site design: site-specific design of configured space by the creative development of form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 361 (or PLA 361) with C or better
LDE	363	Landscape Planting Design	Functional and aesthetic use of plants in arid-region landscape design. Explores design philosophies through planting design problems.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Landscape Architecture student; Co-requisites: LTC 344, LDE 461
LDE	461	Landscape Architecture III	Landscape ecological planning: collection and application of ecological data relevant to planning and design at landscape scale. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 362 with C or better; Co-requisites: LTC 344; LDE 363
LDE	462	Landscape Architecture IV	Advanced landscape architecture: integrative capstone studio with multifaceted design problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 461 with C or better; Co-requisite: LTC 446; LPH 411
LDE	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
LDE	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
LDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LDE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LES	305	Legal, Ethical, and Regulatory Issues in Business	Legal theories, ethical issues, and regulatory climate affecting business policies and decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W. P. Carey BA or BS student, OR non-business student with minimum 2.5 ASU cum GPA, and minimum 2.5 ASU business GPA, and minimum 56 earned hours, OR be a non-degree or Graduate student.
LES	306	Business Law	Legal and ethical aspects of contracts, sales, commercial paper, secured transactions, documents of title, letters of credit, and bank deposits and collections.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-Requisites: Student in Accountancy; Global Management student in Conditional or Professional Business status
LES	380	Consumer Perspective of Business Law	Role of law as it affects society. Uses case studies to present principles that govern business and consumers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Must have a minimum GPA of 2.00; must have a minimum total earned hours of 56 or be a graduate or non-degree seeking student
LES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: Minimum 2.00 GPA; Minimum 56 hours OR Non-degree seeking student
LES	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
LES	532	Negotiation Agreements	Develops negotiation competencies to build partnerships and create lasting agreements with internal/external customers, suppliers, work teams, and external constituencies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: MBA student
LES	579	Legal and Ethical Issues for Business	Managerial decision making within the bounds of ethics, social responsibility, and legal and regulatory constraints. Strong international focus.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA student
LES	581	Essentials of Law for Managers	Studies legal components of business decisions, multiple aspects of law affecting business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1.5-3		
LES	582	Ethical Issues for Managers	Studies ethical decisions; the role of business in society.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1.5-3		
LES	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	305	Legal, Ethical, and Regulatory Issues in Business	Legal theories, ethical issues, and regulatory climate affecting business policies and decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BA or BS student, OR non-business student with minimum 2.5 ASU cum GPA, and minimum 2.5 ASU business GPA, and minimum 56 earned hours, OR be a non-degree or Graduate student.
LES	411	Real Estate Law	Legal and ethical aspects of land ownerships, interests, transfer, finance development, and regulations of the real estate industry.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Business professional status; Co-requisites: BUS 451 and REA 441

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LIA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
LIA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
LIA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6	L	Pre-requisites: Must be an Honors student
LIA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-14		
LIA	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
LIA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
LIA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	301	International Organizational Behavior	Educates students to lead others in the intra- and interorganizational relationships in multinational firms operating in complex global environments. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management and Leadership student in the Leadership in International Management plan with either a Professional or Conditions status.
LIM	303	Negotiation and Conflict Resolution Strategies Across Cultures	Explores the impact of cultural differences on international negotiations and subsequent application of this knowledge to conflict resolution processes. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	401	Advanced Topics in International Leadership	Provides an overview of the most current leadership theories and practices to develop students as leaders in crosscultural contexts. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
LIM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-7		
LIM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LIN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	510	Linguistics	Overview of linguistics, its subfields, and some of its applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Students who have credit for BLE 537, may not enroll in LIN 510
LIN	511	Phonetics and Phonology	Current trends in phonological theory and its basis in acoustic and articulatory phonetics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	513	Semantics	Current approaches to linguistic meaning with particular attention to English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	514	Syntax	Analyzes syntactic structures using a generative theoretical model with a focus on English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	515	American English	Development of the English language in America, including regional and social varieties, and its relationship to other immigrant and native languages.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	516	Pragmatics and Discourse Analysis	Studies language use in context and language structures in spoken and written texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	517	History of the English Language	Surveys the development of the English language, with an emphasis on major linguistic transformations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	520	Second-Language Acquisition Theories	Theories of second-language acquisition, including the linguistic, cognitive, and sociocultural aspects.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	521	Methods of Teaching English as a Second Language	Methods of teaching English as a second language, language teaching trends, practical applications, and the teaching of different skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	522	Grammar for TESL	Surveys major grammatical structures in English and how they can be taught to ESL speakers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	523	Language Testing and Assessment	Introduces the theory and practice of language test construction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	524	Curriculum Design and Materials Development	Practical guide to curriculum and materials development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
LIN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
LIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of English	1-12		
LIN	610	Advanced Studies in Linguistics	Different topics such as morphology, semantics, typology, history of linguistics.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	614	Advanced Studies in Syntax	Focuses on morphosyntactic feature checking, movement, phrase structure, and their crosslinguistic differences. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	615	Advanced Studies in Sociolinguistics	Language in its social setting, e.g., social variation among native speakers, sociolinguistics aspects of second-language acquisition, and language policy.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	616	Advanced Studies in Discourse Analysis	Advanced analysis of spoken and written discourse emphasizing different methodological and theoretical issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	617	Advanced Studies in Historical Linguistics	Overview of theories on language change, the history of languages, and of methods in historical linguistics.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	620	Advanced Studies in Second-Language Acquisition	Selected topics in second-language acquisition, such as phonetics and phonology, morphology, syntax, and discourse.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	655	Disciplinary Discourses	Investigation of professional and disciplinary issues related to English studies.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	656	Studies in Cross-Cultural Discourse	Theoretical and methodological issues in the comparative study of discourses between cultures and communities of practice.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LIN	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-15		
LIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
LIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of English	1-15		
LIS	510	Computers and Technology in the School Library	Library uses of technology and computers. Fundamental concepts and issues in library media centers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	533	Current Library Problems	Critical analysis of current practices and problems in school librarianship.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	540	Classification and Cataloging	Descriptive cataloging and Dewey Decimal Classification of print and nonprint library materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	561	Selection of Library Materials	Principles and procedures used in the selection of materials for the school library.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	565	Literature for Hispanic Youth/Literatura para Jóvenes Hispanoparlantes	Selects, analyzes, and utilizes literature for Hispanic and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	571	Basic Reference Resources	Provides reference service in the school library. Content and use of basic resources.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	581	School Library Administration	Administration of K-12 libraries and media centers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LNP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LNP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LNP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LNP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	310	History of Landscape Architecture	Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	
LPH	311	Contemporary Landscape Architecture	Explores concerns, projects, and movements in landscape architecture of late 20th-century understanding; social, ecological, regional, and historical influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
LPH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	411	Landscape Architecture Theory and Criticism	Critically analyzes landscape architecture theories and projects to evaluate validity of design and contribution to society.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	L	Pre-requisites: Landscape Architecture; LDE 461 and LPH 311 with C or better; Co-requisites: LDE 462 and LTC 446
LPH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LPH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

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LPH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LSC	241	Human Genetics	Introduces basic concepts of human heredity and cytogenetics, including Mendelian, molecular, and population genetics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	300	Modes of Biological Thought	Involves students in the process of biological discovery to examine how we identify truth in biological science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed ENG101 or ENG105 and BIO181 or BIO188 and BIO182 or BIO187 with a grade of C or greater or be currently enrolled.
LSC	301	Life Sciences: History and Method	Integrates philosophy, history, and methods of the life sciences. Includes issue of underrepresentation of minorities in science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
LSC	305	Biology Behind the Crime Scene	Explores biological technology behind forensic techniques like fingerprinting, Polymerase Chain Reaction (PCR), and paternity testing. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	Pre-requisites: Minimum Sophomore standing
LSC	307	Comparative Plant Diversity	Surveys major groups of green plants, emphasizing evolutionary history from morphology, the fossil record, and molecular phylogenies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed ENG 101 or ENG 105 and BIO 100 or BIO 182 or BIO 187 with a grade of C or greater or be currently enrolled.
LSC	308	Plant Physiology	Concepts of plant function: carbon metabolism, energy acquisition, regulation of growth and development, stress responses, and water and nutrient uptake. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		
LSC	309	The Flora of Arizona	Principles of taxonomy; identification of Arizona plants. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO 182 or BIO 187 and BIO 181 or BIO 188 with a grade of C or greater or be currently enrolled
LSC	310	Natural History of Arizona	Plant and animal communities of Arizona. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SG	
LSC	311	Field Natural History	Organisms and their natural environment. Cannot be used for major credit in the biological sciences. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SG	Pre or Co-requisites: LSC 310 (with C or better if completed)
LSC	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO 181 or 188 and CHM 113 and CHM 115 or 116 with a grade of C or greater or be currently enrolled.
LSC	322	Fundamentals of Ecology Laboratory	Investigational field course on fundamental concepts in ecology. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: must have completed LSC320 with a C or greater or be currently enrolled, or be co-enrolled in LSC320
LSC	331	Animal Behavior	Evolutionary, genetic, physiological, and ecological bases of animal behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed BIO187 with a grade of C or greater or be currently enrolled.
LSC	332	Research Techniques in Animal Behavior	Experimental and field studies of animal behavior; description and qualification of animal behavior and interpretation of behavior within an evolutionary framework. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: must have completed LSC331 with a grade of C or greater or be currently enrolled or be co-enrolled in LSC331.
LSC	342	Hormones and Behavior	Examines the short-term and long-term effects of hormones on the behavior of animals, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 181 or 188 and BIO 182 or 187 with a grade of C or greater or be currently enrolled.
LSC	345	Organic Evolution	Processes of adaptive change and speciation in sexual populations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 187 and BIO 188 with a grade of C or greater or be currently enrolled.
LSC	347	Fundamentals of Genetics	Science of genetics, gene flow, and genetic engineering in humans and other organisms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 181 or 188 and BIO 182 or 187 and CHM 115 or 116 or be currently enrolled.
LSC	348	Fundamentals of Genetics Laboratory	Investigational lab using modern molecular techniques to analyze various genetic phenomena. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: must have completed BIO 187, BIO 188, CHM 113, and CHM 116 with a grade of C or greater and be co-enrolled in LSC 347.
LSC	350	Premedical Professional Seminar	An opportunity for students who anticipate a career in any area of medicine to explore the realities of the field.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO 181 or 188, BIO 182 or 188, BIO 353 or LSC 353, and BIO 340 or LSC 347 with C or better
LSC	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 181 or 188, BIO 182 or 182, and CHM 115 or 116 or be currently enrolled.
LSC	354	Developmental Anatomy Lab	Experimental studies of developmental processes in animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	355	Cell Biology Laboratory	Investigational lab using modern molecular and cellular techniques to analyze molecular, biochemical, and anatomical traits of cells. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisite: must have completed LSC353 with a grade of C or greater or be currently enrolled or be co-enrolled in LSC353.

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LSC	358	Animal Physiology Lecture	Physiological mechanisms of the higher vertebrates.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO187, BIO188, and CHM116, and one of the following MAT courses: MAT 117, 119, 170, 210, 270, or 271 with a grade of C or greater or be currently enrolled.
LSC	359	Animal Physiology Laboratory	Investigative lab experience using animals (including humans) and models. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: must have completed LSC358 with a C or greater or be currently enrolled or be co-enrolled in LSC358.
LSC	360	The Biology of Human Experience	Introduces the evolutionary origins and characteristics of humans as they are reflected in morphology, physiology, ecology, and behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO187 and BIO188 with a grade of C or greater or be currently enrolled.
LSC	361	Human Sexual Biology	Human sexuality from a biological and integrative perspective, including comparisons to other vertebrates and examination of social, behavioral, and physiological factors. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	362	The Human Environment	Evolution of humans' physiological, ecological, and behavioral interaction with their environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	363	Genes, Race, Gender, and Society	Examines biological events and theories on race and gender and their interface with societal views.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	Pre-requisites: BIO 182 (or BIO 187), BIO 181 (or BIO 188), BIO 340 (or LSC 347), LSC 353 and CHM 234 with C or better
LSC	365	The Human Organism	Analyzes human anatomy, physiology, and behavior in an ecological and evolutionary context with the methods of comparative biology. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
LSC	366	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems; and the relationship of these processes to energy production and utilization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed CHM237, CHM238, CHM233, and CHM234 with a grade of C or greater or be currently enrolled.
LSC	367	Elementary Biochemistry Laboratory	Quantitative analysis of constituents of biological systems, enzyme assays, protein purification, and metabolic studies. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: Must be co-enrolled in LSC366
LSC	370	Vertebrate Zoology	Characteristics, classification, evolution, and natural history of the major groups of vertebrate animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO 187 and BIO 188 with a grade of C or greater or be currently enrolled.
LSC	380	Medical Parasitology	Parasitic diseases of humans, including life cycle events and clinical manifestations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed LSC353/BIO353 or LSC385/BIO385 with a grade of C or greater or be currently enrolled.
LSC	385	Invertebrate Zoology	Characteristics, life cycles, adaptations, and evolution of invertebrate animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO182/182 and BIO188/181 with a grade of C or greater or be currently enrolled.
LSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	408	Population Biology	Theoretical and applied aspects of distribution and abundance, population regulation, genetic flow, and interactions among populations, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	415	Biometry	Statistical methods applied to biological problems, design of experiments, estimation, significance, analysis of variance, regression, correlation, chi square, and bioassay; the use of computers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	CS	Pre-requisites: must have completed MAT 210 or MAT 270 or MAT 271 AND LSC320 and LSC322 with a grade of C or greater or be currently enrolled.
LSC	422	Introductory Immunology	Fundamental concepts in research and medicine. Cellular immunity, antibody and antigen, immunogenetics, immunoregulation, hypersensitivity, clinical immunology, and nervous-immune system interactions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed CHM233/331 and LSC353 or BIO353 with a grade of C or greater or be currently enrolled.
LSC	430	Environmental and Human Toxicology	Lecture/fieldwork course investigating toxic substances in the environment and their effect on the health of organisms, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO187/182, BIO188/181, and CHM116/115 with a grade of C or greater or be currently enrolled.
LSC	432	Fundamentals of Pharmacology	Aspects of pharmacology using an integrated approach to familiarize students with natural and synthetic therapeutic agents used in medicine.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed either BIO353, LSC353, or LSC359 with a grade of C or greater or be currently enrolled.
LSC	434	Marine Ecology	Examines ecological processes in oceans, seas, and estuaries that emphasizes species- and community-level phenomena.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO187/182, BIO188/181, and LSC320 with a grade of C or greater or be currently enrolled.
LSC	443	Applied Molecular Genetics and Genomics	Nature and function of the gene; emphasizes the molecular genetic disease states; molecular biology; regulation of gene expression; genomics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: LSC 347 with C or better; CHM 233 or 331 with C or better; CHM 237 or 335 with C or better
LSC	444	Fundamentals of Microbiology	Overview of microorganisms; their anatomy, physiology, genetics, metabolic diversity, and ecological significance. Not open to students with credit in MIC 205.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed LSC353 with a grade of C or greater or be currently enrolled.
LSC	445	Fundamentals of Microbiology Laboratory	Principles and lab techniques used in culturing, identifying, and analyzing microorganisms. Not open to students with credit in MIC 206. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisite: must have completed LSC444 with a grade of C or greater or be currently enrolled or c-enrolled in LSC444.
LSC	447	Molecular Genetics Laboratory	Investigative lab involving DNA isolation, PCR, gel electrophoresis, enzyme digestion and ligation, transformation, and hybridization analysis. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	450	Premedical Externship	Provides hands-on experience in a hospital setting for premedical students.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: LSC 350 with C or better
LSC	453	Animal Histology	Microscopic study of animal tissues. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO188/181, BIO187/182, and LSC353/BIO353 with a grade of C or greater or be currently enrolled.
LSC	471	Ornithology	The biology of birds. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed LSC370 with a grade of C or greater or be currently enrolled.
LSC	473	Ichthyology	Systematics and biology of recent and extinct fishes. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	Pre-requisites: must have completed ENG101/105 and LSC370 with a grade of C or greater or be currently enrolled.

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LSC	474	Herpetology	Systematics and biology of recent and extinct reptiles and amphibians. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed LSC370 with a grade of C or greater or be currently enrolled.
LSC	482	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed 20 hours of Biological Sciences courses (BIO/LSC).
LSC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	486	Peer Mentoring in the Life Sciences	Advanced students learn and apply mentoring skills in teaching labs.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	492	Honors Directed Study		N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6		
LSC	493	Honors Thesis		N	SEM	N	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6	L	Pre-requisites: Must be an Honors student
LSC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-7		
LSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
LSC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LAB	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LAB	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LTC	343	Landscape Construction I	Landscape constructions focusing on landform transformations. Topics include landform analysis, grading, and earthwork.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: LDE 361
LTC	344	Landscape Construction II	Characteristics of materials and methods used in landscape architectural construction.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Landscape Architecture student; LTC 343 with C or better; Co-requisites: LDE 363 and 461
LTC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LTC	446	Landscape Construction III	Landscape construction focusing on low-technology, biotechnical, regional, and experimental techniques or systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
LTC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		

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LTC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LTC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LWU	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1.		Pre-requisites: Freshman standing
LWU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LWU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LWU	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Law	Sandra Day O'Connor College of Law	1-12		
LWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
MA	513	Algebraic Topology	Rigorous introduction to graph theory. High-level mastery in topics such as trees, cycles, matchings, planarity, connectivity, hamiltonicity, chromatic number, Ramsey theory with emphasis on proof techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAE	100	Introduction to Mechanical and Aerospace Engineering	Introduces mechanical and aerospace engineering, design process, teaming, the profession of mechanical and aerospace engineering, computer models in engineering, communication skills, CAD tools, and programming tools. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2.		Pre-requisites: Aerospace or Mechanical Engineering student
MAE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-3		Pre-requisites: MAE Freshman student
MAE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	212	Engineering Mechanics	Force systems, resultants, moments and equilibrium. Kinematics and kinetics of particles, systems of particles and rigid bodies. Energy and momentum principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Mech & Aero student; PHY 121 C or better; Pre/Co-requisite: MAT 274 or 275 C or better OR Non Mech & Aero student; PHY 121; Pre/Co-requisite: MAT 274 or 275
MAE	213	Solid Mechanics	Equilibrium, strain-displacement relations, and stress-strain-temperature relations. Applications to force transmission and deformations in axial, torsional, and bending of bars. Combined loadings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: CEE 210, CEE 211 or MAE 212 with C or better; MAT 274 (or 275) with C or better
MAE	214	Computer-Aided Engineering I	Introduces geometry and construction techniques in CAD, technical drawing conventions, generating drawings from CAD models. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		Pre-requisites: A grade of C or better in MAE 212 or (ECE 212 or ECE 214) OR be co-enrolled in MAE 212.
MAE	240	Thermofluids I	Introductory concepts of thermodynamics, fluid mechanics, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Mechanical & Aerospace Engr students with MAE 212 (or ECE 212 or ECE 214) with C or better or CEE 211 with D or better OR Non MAE students with CEE 211, MAE 212 (or ECE 212 or ECE 214) with D or better
MAE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6		
MAE	313	Aircraft Dynamics and Control	Aircraft static stability; equations of motion; dynamic modes and stability; stability derivatives; response to controls; introduces automatic control of aircraft.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MAE 318 and MAE 360 with C or better
MAE	318	Sensors and Controls	Introduces measurement systems, feedback control modelling and dynamics of physical systems, computer simulations and real-time experiments. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	5.		Pre-requisites: Engineering BS/BSE student; MAE 212 or CEE 211 with a C or better; EEE 202 with a C or better
MAE	322	Structural Mechanics	Three-dimensional stress analysis, failure theories, energy methods, finite elements, torsion of noncircular members, unsymmetrical bending, beam column, fatigue and fracture. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE student; MAE 213, MAT 343, & MAE 384 with C or better, (or co-enrolled in MAE 384)

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MAE	323	Computer-Aided Engineering II	Introduces finite-element analysis, pre- and postprocessing, solving problems with FEA. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2.		Pre-requisites: Engineering BS/BSE student; MAE 214 with D or better; Pre- or Co-requisite: MAE 322 (with D or better if completed)
MAE	340	Thermofluids II	Intermediate concepts of thermodynamics, fluid mechanics, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 240 with a C or better; Pre/Co-requisite: MAE 384
MAE	341	Mechanism Analysis and Design	Positions, velocities, and accelerations of machine parts; cams, gears, flexible connectors, and rolling contact; introduces synthesis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; MAE 212 with a C or better
MAE	342	Principles of Mechanical Design	The design process; conceptual and embodiment design of mechanical elements; form synthesis; material selection, failure modes, manufacturability tolerances, common mechanisms and machine elements. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with C or better; MAE 322 with C or better; Pre/Co-requisite: MAE 318 (with C or better if completed)
MAE	344	Fundamentals of Aerospace Design	Design theory and design tools applied to aerospace engineering. Engineering drawings, solid modeling, RFP's, Federal Aviation Regulations and military specifications, aircraft sizing, rapid prototyping. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MAE 214, 322, 360 and 384 with a C or better
MAE	345	Structures in a Space Environment	Space mission environment; mechanical behavior of materials and structures for space; analysis and design of space structures; finite element procedures.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students; MAE 213 and MAE 384 with C or better; Pre or Co-requisites: MAE 318 (with C or better if completed)
MAE	351	Manufacturing Processes	Production technique and equipment. Casting and molding, forming, machining, joining and assembly, computer-integrated manufacturing, rapid prototyping, and electronics manufacturing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with C or better; Credit is allowed for only IEE 360 or MAE 351
MAE	360	Aerodynamics	Airfoils and wings, ideal flow, panel methods, boundary layers, finite-difference solutions, wind-tunnel testing. Both MAE 362 and MAE 360 must be taken to secure L General Studies credit. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.	L	Pre-requisites: Engineering BS/BSE students; MAE 240 with C or better; ENG 102, 105 or 108 with C or better; MAE 384 or CEE 384 with C or better or Co-requisite: MAE 384
MAE	362	High-Speed Aerodynamics	Compressible flow at subsonic and supersonic speeds; ducts, nozzles, and diffusers; normal and oblique shocks, transonic flow, numerical solutions; experimental applications. Both MAE 362 and MAE 360 must be taken to secure L General Studies credit. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.	L	Pre-requisites: Engineering BS/BSE students; MAE 240 and MAE 384 with C or better
MAE	372	Fluid Mechanics	Applies basic principles of fluid mechanics to problems in viscous and compressible flow.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 360 with C or better; MAE 384 with C or better
MAE	382	Thermodynamics	Applied thermodynamics; gas mixtures, psychrometrics, property relationships, power and refrigeration cycles, and reactive systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 240 with C or better
MAE	384	Numerical Methods for Engineers	Numerical methods and computational tools for selected problems in engineering. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	CS	Engineering BS/BSE student; Mech & Aero students with MAT274 or 275 & MAT343(or MAT 242) C or better OR Non Mech & Aero with MAT274 or 275 & MAT242, 342 or 343(C or better); Pre or Co-req: MAT272 (or MAT267 w/C or better). Credit only for MAE384 /CEE384
MAE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		Pre-requisites: Engineering BS/BSE student
MAE	400	Engineering Profession	Impact of mechanical and aerospace engineering in a global and societal context; effects of and on globalization, environment, sustainability, economy, politics; engineering ethics and business practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Aerospace Engineering or Mechanical Engineering BSE Seniors; MAE 342 or MAE 362 completed with a C or better
MAE	404	Finite Elements in Engineering	Introduces ideas and methodology of finite element analysis. Applications to solid mechanics, heat transfer, fluid mechanics, and vibrations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 213 or a grade of C or better in ECE 313 AND a grade of D or better in CEE 384, MAE 384 or ECE 384.
MAE	406	CAD/CAM Applications in MAE	Solution of engineering problems with the aid of state-of-the-art software tools in solid modeling, engineering analysis, and manufacturing; selection of modeling parameters; reliability tests on software. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 342, 344, 441 or 444.
MAE	415	Vibration Analysis	Free and forced response of single and multiple degree of freedom systems, continuous systems; applications in mechanical and aerospace systems numerical methods. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 213 with C or better; CEE 384 or MAE 384 with C or better
MAE	417	Control System Design	Tools and methods of control system design and compensation, including simulation, response optimization, frequency domain techniques, state variable feedback, and sensitivity analysis. Introduces nonlinear and discrete time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better
MAE	426	Design of Aerospace Structures	Flight vehicle loads, design of semimonocoque structures, local buckling and crippling, fatigue, aerospace materials, composites, joints, and finite element applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 322 with C or better
MAE	434	Internal Combustion Engines	Performance characteristics, combustion, carburetion and fuel-injection, and the cooling and control of internal combustion engines. Computer modeling. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 382 with C or better

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MAE	435	Turbomachinery	Design and performance of turbomachines, including steam, gas and hydraulic turbines, centrifugal pumps, compressors, fans, and blowers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 340, 360 361 or 371
MAE	436	Combustion	Thermochemical and reaction rate processes; combustion of gaseous and condensed-phase fuels. Applications to propulsion and heating systems. Pollutant formation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 with C or better
MAE	442	Mechanical Systems Design	Applies design principles and techniques to the synthesis, modeling, and optimization of mechanical, electromechanical, and hydraulic systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better; MAE 342 or MAE 344 with C or better
MAE	446	Energy Systems Design	Applies mechanical engineering principles and techniques to modeling, analysis, and synthesis of energy systems and components. Design optimization. Design project.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 with C or better or MAE 382 with C or better
MAE	447	Robotics and Its Influence on Design	Robot applications, configurations, singular positions, and work space; modes of control; vision; programming exercises; design of parts for assembly.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better
MAE	455	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better or currently enrolled; CEE 213, MAE 213 or MSE 211 with D or better or currently enrolled; MAT 343, MAT 242 or MAT 342 with D or better or currently enrolled
MAE	462	Space Vehicle Dynamics and Control	Attitude dynamics and control, launch vehicles, orbital mechanics, orbital transfer/rendezvous, space mission design, space structures, spacecraft control systems design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better
MAE	463	Propulsion	Fundamentals of gas-turbine engines and design of components. Principles and design of rocket propulsion and alternative devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 362 with C or better; MAE 384 with C or better
MAE	465	Rocket Propulsion	Rocket flight performance; nozzle design; combustion of liquid and solid propellants; component design; advanced propulsion systems; interplanetary missions; testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE plans; MAE 340 or MAE 362 with C or better
MAE	466	Rotary Wing Aerodynamics and Performance	Introduces helicopter and propeller analysis techniques. Momentum, blade-element, and vortex methods. Hover and forward flight. Ground effect, autorotation, and compressibility effects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 360 with C or better
MAE	468	Aerospace Systems Design	Group projects related to aerospace vehicle design, working from mission definition and continuing through preliminary design. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Engineering BS/BSE students; MAE 313 with a C or better; MAE 344 with C or better; Pre-or Co-requisite: MAE 463 with C if completed
MAE	469	Projects in Astronautics or Aeronautics	Various multidisciplinary team projects available each semester. Projects include design of high-speed aircraft autonomous vehicles, liquid-fueled rockets, microaerial vehicles, satellites. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student
MAE	471	Computational Fluid Dynamics	Numerical solutions for selected problems in fluid mechanics. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 360 with C or better; MAE 384 or ECE 384 with C or better
MAE	480	Space Systems Design	Group projects related to space systems design, working from mission definition and continuing through conceptual design. Integrated lecture/lab.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; C or better in MAE 214, MAE 345, MAE 465, and EEE 304, or be co-enrolled in EEE 304
MAE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	488	Mechanical Engineering Design I	Conceptual and embodiment design; modeling; rapid prototyping. Team project. MAE 488 and 489 must be taken in consecutive semesters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in MAE 340 AND a grade of C or better in MAE 342
MAE	489	Mechanical Engineering Design II	Detail design; fabrication and testing. Team project. MAE 488 and 489 must be taken in consecutive semesters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 488 completed with a D or better or currently enrolled
MAE	491	Experimental Mechanical Engineering	Experimental and analytical studies of phenomena and performance of fluid flow, heat transfer, thermodynamics, refrigeration, and mechanical power systems. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Engineering BS/BSE students; MAE 318 with D or better; MAE 340 with D or better
MAE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6		
MAE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6	L	Pre-requisites: Must be an Honors student.
MAE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-7		Pre-requisites: Engineering students

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MAE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-3		
MAE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	501	Linear Algebra in Engineering	Development and solution of systems of linear algebraic equations. Applications from mechanical, structural, and electrical fields of engineering.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students only
MAE	502	Partial Differential Equations in Engineering	Development and solution of partial differential equations in engineering. Applications in solid mechanics, vibrations, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students only
MAE	504	Experimental Methods for Thermal and Fluid Processes	Theory and application of optical diagnostics and microsensors for characterizing thermofluid processes. Measurements include laser spectroscopy, velocimetry, particle sizing, and surface properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	505	Perturbation Methods	Nonlinear oscillations, strained coordinates, renormalization, multiple scales, boundary layers, matched asymptotic expansions, turning point problems, and WKBJ method.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; Credit is allowed for only APM 575 or MAE 505
MAE	506	Advanced System Modeling, Dynamics, and Control	Lumped-parameter modeling of physical systems with examples. State variable representations and dynamic response. Introduces modern control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; MAE 501 with C or better.
MAE	507	Optimal Control	Optimal control of systems. Calculus of variations, dynamic programming, linear quadratic regulator, numerical methods, and Pontryagin's principle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; MAE 506 with C or better
MAE	510	Dynamics and Vibrations	Lagrange's and Hamilton's equations, rigid body dynamics, gyroscopic motion, and small oscillation theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students
MAE	512	Random Vibrations	Reviews probability theory, random processes, stationarity, power spectrum, white noise process, random response of single and multiple DOF systems, and Markov processes simulation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2-3		Pre-requisites: Graduate Engineering student; CEE 536, MAE 510 or MAE 515 with C or better or currently enrolled
MAE	515	Structural Dynamics	Free vibration and forced response of discrete and continuous systems, exact and approximate methods of solution, response spectra, computational techniques, special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 510 completed with a C or better or currently enrolled
MAE	520	Stress Analysis	Introduces tensors: kinematics, stress analysis, and constitutive assumptions leading to elastic and plastic behavior. Strain energy and energy methods; applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	521	Structural Optimization	Linear and nonlinear programming. Problem formulation. Design sensitivity analysis. FEM-based optimal design of structural and mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 501 with C or better; CEE 526 or MAE 527 with a C or better
MAE	523	Fracture Mechanics	Linear elastic fracture mechanics. Nonlinear problems. Fatigue fracture. Experimental methods in fracture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; CEE 521 or MAE 520 with C or better
MAE	524	Theory of Elasticity	Elastic behavior in two and three dimensions. Airy stress functions and displacement potentials. Elements of fracture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 520 with C or better
MAE	525	Mechanics of Smart Materials and Structures	Modeling and analysis of smart materials and adaptive structures. Application areas include vibration and shape control and damage detection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 510 with C or better
MAE	527	Finite Elements for Engineers	Direct stiffness, method of weighted residuals, weak formulation, and variational techniques in the solution of engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 501 with C or better
MAE	536	Combustion	Thermodynamics; chemical kinetics of combustion. Explosion and ignition theories. Reactive gas dynamics. Structure, propagation, and stability of flames. Experimental methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	540	Advanced Product Design Methodology	Surveys research in engineering design process, artifact and design, knowledge, formal and informal logic, heuristic and numerical searches, theory of structure and complexity.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	541	CADTools for Engineers	Elements of computer techniques required to develop CAD software. Data structures, including lists, trees, and graphs. Computer graphics, including 2- and 3-D algorithms and user interface techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student

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MAE	544	Mechanical Design and Failure Prevention	Modes of mechanical failure; applies principles of elasticity and plasticity in multiaxial state of stress to design synthesis; failure theories; fatigue; creep; impact.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	546	CAD/CAM Applications in MAE	Solution of engineering problems with the aid of state-of-the-art software tools in solid modeling, engineering analysis, and manufacturing; selection of modeling parameters; reliability tests on software. Open only to students without previous credit for MAE 406.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Graduate Engineering student
MAE	547	Mechanical Design and Control of Robots	Homogeneous transformations, 3-D kinematics, geometry of motion, forward and inverse kinematics, workspace and motion trajectories, dynamics, control, and static forces.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	557	Mechanics of Composite Materials	Analysis, design, and applications of laminated and chopped fiber reinforced composites. Micro- and macromechanical analysis of elastic constants, failure, and environmental degradation. Design project.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	561	Computational Fluid Dynamics	Finite-difference and finite-volume techniques for solving the subsonic, transonic, and supersonic flow equations. Method of characteristics. Numerical grid-generation techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	564	Advanced Aerodynamics	Perturbation method. Linearized subsonic and supersonic flows. Thin wing/slender body theories. Lifting surface theory. Panel method computation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	566	Rotary-Wing Aerodynamics	Introduces helicopter and propeller analysis techniques. Momentum, blade-element, and vortex methods. Hover and forward flight. Ground effect, autorotation, and compressibility effects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	571	Fluid Mechanics	Basic kinematic, dynamic, and thermodynamic equations of the fluid continuum and their application to basic fluid models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	572	Advanced High-Speed Flows	Introduces compressible flow. Sound waves and normal shock waves. Quasi-one-dimensional steady flows in variable area ducts with friction, heating, and cooling; unsteady one-dimensional flow, oblique shock waves, Prandtl-Meyer expansions, detonation waves.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	573	Viscous Fluid Flow	Mechanics of fluids for flows in which the effects of viscosity are significant. Exact and approximate solutions of the Navier-Stokes system, laminar flow at low and high Reynolds number.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 completed with C or better or currently enrolled
MAE	574	Fluid Transport in Micro/Nanoscale Devices	Focuses on fundamental fluid transport physics in micron and nanometer scale devices. At small length scales fluid motion and transport is governed by electromagnetic, interfacial, and stochastic phenomena that differentiate these flows from typical macroscale flows. In microscale devices these phenomena enable new and high-performance separation, concentration, control, and diagnostic processes. Core concepts are presented along with discussions of state-of-the-art micro and nanoscale total analytical devices. Requires knowledge of fluid mechanics, electrostatics, heat and mass transfer, and partial differential equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Fulton School of Engineering graduate students only
MAE	575	Turbulence	Homogeneous, isotropic, and wall turbulence. Experimental results. Introduces turbulent-flow calculations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	577	Turbulent Flow Modeling	Reynolds equations and their closure. Modeling of simple and complex turbulent flows, calculations of internal and external flows, and application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	578	Environmental Fluid Dynamics	Studies fluid motions in Earth's hydrosphere and atmosphere on local and regional scales.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	581	Advanced Thermodynamics	Basic concepts and laws of classical equilibrium thermodynamics; applications to engineering systems; introduction and applications of statistical mechanics and kinetic theory; Boltzmann integro-differential equation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	585	Conduction Heat Transfer	Basic equations and concepts of conduction heat transfer. Mathematical formulation and solution (analytical and numerical) of steady and unsteady, one- and multidimensional heat conduction and phase change problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	586	Convection Heat Transfer	Basic concepts and governing equations. Analysis of laminar and turbulent heat transfer for internal and external flows. Natural and mixed convection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student

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MAE	587	Radiation Heat Transfer	Advanced concepts and solution methodologies for radiation heat transfer, including exchange of thermal radiation between surfaces, radiation in absorbing, emitting, and scattering media and radiation combined with conduction and convection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	589	Heat and Mass Transfer	Basic concepts; physical and mathematical models for heat and mass transfer. Applications to conductive, convective, radiative, and combined mode heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		Pre-requisites: Graduate Engineering student
MAE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		
MAE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		Pre-requisites: Graduate Engineering student
MAE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-15		
MAE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		
MAE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-15		
MAK	101	Elementary Macedonian	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	102	Elementary Macedonian	See MAK 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		

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MAK	201	Intermediate Macedonian	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	202	Intermediate Macedonian	See MAK 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	311	Macedonian Composition and Conversation	Advanced communicative proficiency and writing development. Intended for students enrolled in ASU Study Abroad University of Ss. Kiril and Metodij.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	312	Macedonian Composition and Conversation	Advanced communicative proficiency and writing development. Intended for students enrolled in ASU Study Abroad University of Ss. Kiril and Metodij.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	411	Advanced Macedonian Composition and Conversation	Improves self-expression in oral and written skills, emphasizing vocabulary building and use of newspapers and other materials published in Macedonia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	412	Advanced Macedonian Composition and Conversation	Improves self-expression in oral and written skills, emphasizing vocabulary building and use of newspapers and other materials published in Macedonia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MAS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	501	Models of Inquiry for Contemporary Issues	Critical survey of current models of inquiry, tools, processes, and methods in different fields.	N	DIS	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	502	Perspectives in Interdisciplinary Studies	Introduces interdisciplinarity through explorations of epistemological and rhetorical practices that bridge traditional disciplines.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	505	20th Century Thought: Concepts of Change, Culture and Mind	Introduces graduate-level interdisciplinary study of key thinkers, movements, theories and paradigms in 20th-century thought.	N	DIS	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	511	Technology, Environment and Humanity	Critically analyzes technology in relation to human and environmental issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	512	History and Philosophy of the Social Sciences	Examines the development, historical context, and long-term importance of major theories of human nature from the 17th century until today.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	513	Sociology of Everyday Life	Examines institutional ethnography, a way of exploring the particular and generalized social relations that shape people's everyday experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	529	Latinas and Latinos, Schooling, and Social Inequality	Advanced interdisciplinary understanding of the issues facing Latinas and Latinos in K-16 schooling in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	553	Latin American Cities	Interdisciplinary study of Latin American world cities (e.g., Mexico City, Santiago) emphasizing integration with U.S. cities, including Los Angeles and Phoenix.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MAS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MAS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MAS	585	Capstone Course	Assists students in preparing their capstone project, which represents the culmination of their study for the MA in Interdisciplinary Studies.	N	THE	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3-4		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisites: Must be in PLAN: ASINTERMA

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAS	510	Science and Religion: Cosmologies and Worldviews	Examines science and religion, stressing modern scientific findings and philosophical and historical debates and dialogues.	N	LEC	N	OPT	New Interdis Arts & Sciences	INACTIVE - Interdisciplinary Studies Graduate	3.		
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	265	Calculus for Engineers I	Limits and continuity, differential calculus of functions of one variable, introduction to integration. Not open to students with credit in MAT 270.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	266	Calculus for Engineers II	Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, Taylor series. Not open to students with credit in MAT 271.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	267	Calculus for Engineers III	Vector-valued functions of several variables, partial derivatives, multiple integration. Not open to students with credit in MAT 272.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	274	Elementary Differential Equations	Introduces ordinary differential equations, adapted to the needs of students in engineering and the sciences. Credit is allowed for only MAT 274 or 275 toward a mathematics degree.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 266 or MAT 271 with a C or better
MAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	343	Applied Linear Algebra	Solving linear systems, matrices, determinants, vector spaces, bases, linear transformations, eigenvectors, norms, inner products, decompositions, applications. Problem solving using MATLAB. Credit is allowed for only MAT 343 or 342 toward a mathematics degree. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed the Unified Placement Test
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours

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MAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-5		Pre-requisites: Unified Placement Test with a score of 40 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	242	Elementary Linear Algebra	Introduces matrices, systems of linear equations, determinants, vector spaces, linear transformations, and eigenvalues. Emphasizes development of computational skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	2.		
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	265	Calculus for Engineers I	Limits and continuity, differential calculus of functions of one variable, introduction to integration. Not open to students with credit in MAT 270.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	266	Calculus for Engineers II	Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, Taylor series. Not open to students with credit in MAT 271.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	267	Calculus for Engineers III	Vector-valued functions of several variables, partial derivatives, multiple integration. Not open to students with credit in MAT 272.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	270	Calculus with Analytic Geometry I	Real numbers, limits and continuity, and differential and integral calculus of functions of 1 variable. Not open to students with credit in MAT 290. The sequence MAT 270 and 271 may be substituted for MAT 290 to satisfy requirements of any curriculum. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	271	Calculus with Analytic Geometry II	Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series. Not open to students with credit in MAT 291. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	272	Calculus with Analytic Geometry III	Vector-valued functions of several variables, multiple integration, and introduction to vector analysis. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	274	Elementary Differential Equations	Introduces ordinary differential equations, adapted to the needs of students in engineering and the sciences. Credit is allowed for only MAT 274 or 275 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 266 or MAT 271 with a C or better
MAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MAT	300	Mathematical Structures	Logic and set theory, induction, functions, order and equivalence relations, cardinality. Emphasizes writing proofs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	L	Pre-requisites: MAT 210, or MAT 251, or MAT 265, or MAT 270 with a C or better
MAT	310	Introduction to Geometry	Congruence, area, parallelism, similarity and volume, and Euclidean and non-Euclidean geometry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	340	Theory of Interest	Compound interest, discount rates, annuities, present values, depreciation, and bond valuations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better
MAT	342	Linear Algebra	Linear equations, matrices, determinants, vector spaces, bases, linear transformations and similarity, inner product spaces, eigenvectors, orthonormal bases, diagonalization, and principal axes. Credit is allowed for only MAT 342 or 343 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 267, or MAT 272 with a C or better
MAT	343	Applied Linear Algebra	Solving linear systems, matrices, determinants, vector spaces, bases, linear transformations, eigenvectors, norms, inner products, decompositions, applications. Problem solving using MATLAB. Credit is allowed for only MAT 343 or 342 toward a mathematics degree. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 271 or MAT 266 with a C or better
MAT	351	Mathematical Methods for Genetic Analysis	Discrete mathematics, probability, statistics, and associated computer packages. Applications to genomics, bioinformatics, forensics, and DNA/protein sequence patterns. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	

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MAT	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, or MAT 270 with C or better; Students with credit for BIO 355 or MBB 355 may not enroll in MAT 355
MAT	362	Advanced Mathematics for Engineers and Scientists	Vector analysis, Fourier analysis, and partial differential equations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	370	Intermediate Calculus	Theory behind basic 1-variable calculus: continuity, derivative, Riemann integral, sequences, and series. Not open to students with a C (2.00) or higher in MAT 371. Credit is allowed for only MAT 370 or 371 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 272 (or MAT 267) and MAT 300 (or 243) with a C or better
MAT	371	Advanced Calculus I	Real numbers, completeness, sequences/series, continuity, uniform theorems, derivative, Riemann integral, pointwise/uniform convergence, Taylor's theorem. Credit is allowed for only MAT 371 or 370 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 272 (or MAT 267) and MAT 300 (or 243) with C or better
MAT	372	Advanced Calculus II	Open, closed, compact sets in \mathbb{R}^n ; continuity, differentiation, partial differentiation, integration in \mathbb{R}^n . Inverse/implicit function theorems. Not open to students with credit in MAT 460.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	410	Introduction to General Topology	Topological spaces, metric spaces, compactness, connectedness, and product spaces.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	415	Introduction to Combinatorics	Enumerating permutations and combinations of sets and multisets, inclusion-exclusion, recurrence relations, generating functions, Pólya theory and combinatorial structures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	416	Introduction to Graph Theory	Trees, cycles, matchings, planarity, connectivity, hamiltonicity, chromatic number, Ramsey theory with emphasis on proof techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		MAT 300 (or 243) with C or better
MAT	419	Introduction to Linear Optimization	Simplex method, duality, and network flows. Applications to game theory, geometry, combinatorics, graph theory, and posets.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	420	Scientific Computing	Surveys and applies programming languages, libraries, and scientific visualization tools. Programming assignments emphasize software development skills. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	421	Applied Computational Methods	Numerical methods for quadrature, differential equations, roots of nonlinear equations, interpolation, approximation, linear equations, floating-point arithmetic, and roundoff error.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	423	Numerical Analysis I	Solution of systems of linear and nonlinear equations, optimization, eigenvalues, round-off error, and floating point arithmetic. Fluency in computer programming is required for enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 342 (or MAT 343) with a grade of C or better
MAT	425	Numerical Analysis II	Analysis of and algorithms for numerical interpolation, integration, and differentiation. Numerical solution of ordinary and partial differential equations, introductory level. Applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 274 or MAT 275 with D or better
MAT	442	Advanced Linear Algebra	Fundamentals of linear algebra, dual spaces, invariant subspaces, canonical forms, bilinear and quadratic forms, and multilinear algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	443	Introduction to Abstract Algebra	Introduces concepts of abstract algebra. Not open to students with credit in MAT 444.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 300 and MAT 342 (or MAT 343) with a C or better
MAT	444	Intermediate Abstract Algebra	Basic theory of groups, rings, and fields, including an introduction to Galois theory. Appropriate as preparation for MAT 543.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	445	Theory of Numbers	Prime numbers, unique factorization theorem, congruences, Diophantine equations, primitive roots, and quadratic reciprocity theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	447	Cryptography	Block ciphers, stream ciphers, congruence arithmetic, information theory, public key cryptosystems, key exchange, electronic signatures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	451	Mathematical Modeling	Detailed study of 1 or more mathematical models that occur in the physical or biological sciences. May be repeated for credit with instructor approval.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	452	Introduction to Chaos and Nonlinear Dynamics	Properties of nonlinear dynamical systems; dependence on initial conditions; strange attractors; period doubling; bifurcations; symbolic dynamics; Smale-Birkhoff theorem; and applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	460	Vector Calculus	Vectors, curvilinear coordinates, Jacobians, implicit function theorem, line and surface integrals, Green's, Stokes', and divergence theorems. Not open to students with credit in MAT 372.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	461	Applied Complex Analysis	Analytic functions, complex integration, Taylor and Laurent series, residue theorem, conformal mapping, and harmonic functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 272 or MAT 267 with a C or better
MAT	462	Applied Partial Differential Equations	Second-order partial differential equations, emphasizing Laplace, wave, and diffusion equations. Solutions by the methods of characteristics, separation of variables, and integral transforms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	472	Intermediate Real Analysis I	Introduces analysis in metric spaces with emphasis on the real line. Appropriate as preparation for MAT 570.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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MAT	473	Intermediate Real Analysis II	Analysis in \mathbb{R}^n : implicit function theorem, introduction to manifolds, Lebesgue integration, change of variables formula, convergence theorems for integrals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	475	Differential Equations	Linear and nonlinear ordinary differential equations, asymptotic behavior of solutions, stability, existence and uniqueness, limit sets, Poincaré-Bendixson theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 242 (or MAT 342 or MAT 343) and MAT 274 (or MAT 275) and MAT 370 (or MAT 371) with a "C" or better
MAT	476	Partial Differential Equations	First-order quasilinear, second-order linear (wave, Laplace, heat). Characteristics, harmonic functions, maximum principles, Fourier series, separation of variables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 242 (or 342 or 343) with C or better; MAT 274 (or 275 or 475) with C or better; MAT 370 (or 371) with C or better
MAT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	485	History of Mathematics	Topics from the history of the origin and development of mathematical ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MAT	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
MAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
MAT	514	Enumerative Combinatorics I	First semester of a systematic development of enumerative combinatorics, including elementary counting techniques, sieve methods, and partially ordered sets.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	515	Enumerative Combinatorics II	Second semester of a systematic development of enumerative combinatorics, including lattices, exponential structures, symmetric functions, and selected special topics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	516	Graph Theory I	First semester of a systematic development of graph theory, including matchings, connectivity, arboricity, planarity, coloring, network flows.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	517	Graph Theory II	Second semester of a systematic development of graph theory, including dense and sparse graphs, Ramsey theory, hamiltonicity, random graphs, minors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	518	Combinatorial Optimization	Systematic development of combinatorial optimization, including linear programming, duality, primal-dual algorithms, network flow algorithms, weighted matchings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	543	Abstract Algebra	Groups, modules, rings and fields, Galois theory, homological algebra, and the representation theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	544	Abstract Algebra	Continuation of MAT 543.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	570	Real Analysis	Lebesgue integration, selected function spaces, differentiation, abstract measure theory, and elements of functional analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	571	Real Analysis	Continuation of MAT 570.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	572	Complex Analysis	Analytic functions, series and product representations, entire and meromorphic functions, normal families, Riemann mapping theorem, harmonic functions, and Riemann surfaces.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	573	Complex Analysis	Continuation of MAT 572.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	574	Theory of Ordinary Differential Equations	Systems, existence proofs, singularities, asymptotic behavior of solutions, boundedness of solutions, eigenvalues and eigenfunctions, and perturbation theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	578	Functional Analysis	Locally convex, normed, and Hilbert spaces. Linear operators, spectral theory, and application to classical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	579	Functional Analysis	Continuation of MAT 578.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MAT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MAT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed the Unified Placement Test
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-5		
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	270	Calculus with Analytic Geometry I	Real numbers, limits and continuity, and differential and integral calculus of functions of 1 variable. Not open to students with credit in MAT 290. The sequence MAT 270 and 271 may be substituted for MAT 290 to satisfy requirements of any curriculum. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	271	Calculus with Analytic Geometry II	Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series. Not open to students with credit in MAT 291. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	272	Calculus with Analytic Geometry III	Vector-valued functions of several variables, multiple integration, and introduction to vector analysis. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 266 or MAT 271 with a C or better
MAT	300	Mathematical Structures	Logic and set theory, induction, functions, order and equivalence relations, cardinality. Emphasizes writing proofs.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	
MAT	300-W	Mathematical Structures	Introduces rigor and proof in mathematics. Basic logic, set theory, mathematical induction, combinatorics, functions, relations, and problem solving.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	Pre-requisite: ENG 101 or ENG 105 with C or better
MAT	310	Introduction to Geometry	Congruence, area, parallelism, similarity and volume, and Euclidean and non-Euclidean geometry.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT272 with a grade of C or greater or be currently enrolled.
MAT	342-W	Linear Algebra	Linear equations, matrices, determinants, vector spaces, bases, linear transformations and similarity, inner product spaces, eigenvectors, orthonormal bases, diagonalization, and principal axes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT272 with a grade of C or greater or be currently enrolled.
MAT	371-W	Advanced Calculus I	Continuity, Taylor's theorem, partial differentiation, implicit function theorem, vectors, linear transformations and norms in \mathbb{R}^n , multiple integrals, and power series.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	411	History and Philosophy of Mathematics	Examines nature of mathematics from origins to present, revealed by its history and philosophy. Strong background in mathematics not required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	HU & H	
MAT	419	Introduction to Linear Optimization	Simplex method, duality, and network flows. Applications to game theory, geometry, combinatorics, graph theory, and posets.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
MAT	421	Applied Computational Methods	Numerical methods for quadrature, differential equations, roots of nonlinear equations, interpolation, approximation, linear equations, floating-point arithmetic, and roundoff error.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
MAT	443-W	Abstract Algebra	Introduces the most important algebraic structures, including groups, rings, integral domains, and fields.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	445	Theory of Numbers	Prime numbers, unique factorization theorem, congruences, Diophantine equations, primitive roots, and quadratic reciprocity theorem.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	450	Mathematical Models in Biology	Introduces mathematical models in biological systems. Applications range from the cellular level to systems level and may include applications from areas such as physiology, ecology, epidemiology, population biology, computational and systems biology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	462	Applied Partial Differential Equations	Second-order partial differential equations, emphasizing Laplace, wave, and diffusion equations. Solutions by the methods of characteristics, separation of variables, and integral transforms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
MAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed the Unified Placement Test

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MBB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	245	Principles of Molecular and Cellular Biology I	Introduces molecular biology, genetic engineering, gene expression/control and evolution, in the context of cellular and organismal physiology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	Pre-requisites: CHM 113 with C or better; Pre/Co-requisite: CHM 116 (with C or better if completed)
MBB	247	Principles of Molecular and Cellular Biology II	Introduces cell biology, metabolism and regulation, bioenergetics, and protein translocation in the context of cellular and organismal physiology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MBB 245 with a C or better
MBB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	343	Genetic Engineering and Society	Introduces genetic engineering, with emphasis on applications (transgenic plants and animals, cloning, vaccines, therapeutics, and diagnostics). Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: MBB 247 or BIO 340 with a C or better; Students who have credit for BIO 343, may not enroll in MBB 343
MBB	350	Applied Genetics	Introduces molecular genetics with emphasis on application of genetics to solve biological questions and to engineer organisms for biotechnology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MBB 247 or BIO 340 with C or better; Credit is allowed for only MBB or PLB 350
MBB	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, or MAT 270 with C or better; Students with credit for BIO 355 or MAT 355 may not enroll in MBB 355
MBB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	440	Functional Genomics	Covers emerging fields of genomics and proteomics. Discusses key technologies and their applications to the study of genomes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 340 with C or better; Credit is allowed for only BIO or MBB 440
MBB	444	Techniques in Functional Genomics	Practical introduction to modern functional genomics techniques, including microarray analysis and DNA sequencing.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre or Co-requisites: BIO 440 or MBB 440 (with C or better if completed)
MBB	445	Techniques in Molecular Biology/Genetics	Molecular genetic principles: plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation, immunologic detection, and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: BIO 340 with C or better; MIC 302 with C or better; Students with credit for MIC 445 may not enroll in MBB 445
MBB	446	Techniques in Molecular Biology/Genetics Lab	Molecular genetic techniques; plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation; immunologic detection and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: MBB 445 or MIC 445 (with C or better if completed); Credit is allowed for only MBB or MIC 446
MBB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MBB	490	Capstone: Issues in Biotechnology	Integrates science and biotechnology industry issues dealing with intellectual property, regulatory issues, business practices, and commercialization. Both MBB 490 and MBB 491 for L General Studies credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: MBB 247 with C or better; BIO 340 with C or better
MBB	491	Capstone: Issues in Molecular Biosciences	Integrates molecular science and societal issues dealing with ethics, regulatory issues, and societal needs that pertain to molecular biosciences. Both MBB 490 and MBB 491 for L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: MBB 343 with C or better; BIO 340 with C or better
MBB	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		
MBB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
MBB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
MBB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
MCB	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	501	Seminar: Molecular and Cellular Biology Colloquium	Presentation of current research by noted researchers in the field. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MCB	540	Functional Genomics	Functional relevance of genomic sequences; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MCB	555	Advanced Molecular and Cellular Biology I	Study of structural and functional organization of biomolecules and cells, based on current literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
MCB	556	Advanced Molecular and Cellular Biology II	Continuation of MCB 555.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MCB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MCB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	701	Seminar: Molecular and Cellular Biology Colloquium	Presentation of current research by noted researchers in the field. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
MCB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
MCE	548	Multicultural Perspectives on Teaching and Learning	Facilitates understanding of key components related to cultural diversity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	3.		
MCE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MCE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
MCE	230	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
MCE	230	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
MCE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	447	Diversity in Families and Communities in Multicultural Settings	Diversity and the changing role of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
MCE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
MCE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
MCE	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
MCE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
MCE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
MCE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
MCN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MCO	498	Pro Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	N	LEC	N	OPT	College of Public Programs	Arizona State University	1-7		
MCO	120	Media and Society	Role of newspapers, magazines, radio, television, and motion pictures in American society. Credit is allowed for only MCO 120 or 110. Designed for nonmajors.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	
MCO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-3		
MCO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	200	Introduction to Electronic Media	Surveys electronic media in the United States: history, regulation, organization, programming, and effects.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		
MCO	240	Media Issues in American Pop Culture	Examines the production and consumption of popular culture as disseminated by the mass media with emphasis on the societal implications.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		
MCO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	302	Media Research Methods	Surveys research methods used in the social sciences, with a focus on mass communication.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Communication student with a cumulative GPA of at least 2.0
MCO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	418	History of Mass Communication	American journalism from its English and colonial origins to the present day. Development and influence of newspapers, magazines, radio, television, and news gathering agencies.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB & H	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	421	Media Problems	Trends and problems of the mass media, emphasizing editorial decisions in the processing of information.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Minimum 2.25 GPA; Journalism & Mass Comm student OR Graduate Mass Communications student
MCO	430	International Mass Communication	Comparative study of communication and media systems. Information gathering and dissemination under different political and cultural systems.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	G	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	435	Emerging Media Technologies	Surveys new mass communication technologies and media distribution platforms in a convergent mass media environment.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	440	Applied Media Research	Design, conduct, and analysis of applied media research. Students participate in the Cactus State Poll.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.5 GPA OR graduate Mass Communication student
MCO	450	Visual Communication	Theory and tradition of communication through the visual media with emphasis on the continuity of traditions common to modern visual media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	HU	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	455	War and Mass Media	Provides a better understanding of the role and impact of the mass media in shaping public perceptions about one of humanity's most monumental undertakings, the act of war. Through a combination of lectures, readings, documentaries, and motion pictures, examines and critically analyzes media portrayals, real and fictional, of issues, events, and the changing dynamic among: the government, the military, and public opinion as shaped by the media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate, and image creation.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	460	Race, Gender, and Media	Readings seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	C	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	465	Sports and Media	Designed for aspiring journalists and media users, explores why great sports journalism is essential to our society. Establishes the goals, dreams, and expectations for sports journalism and introduces ethical philosophy and popular ethical models and decision-making tools. Students then apply these tools to sports journalism.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MCO	470	Issues Management and Media Strategy	Strategic aspects of media planning and management in public relations, public affairs, crisis communication lobbying, media ethics, and government relations.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR Graduate Mass Communication student
MCO	473	Sex, Love, and Romance in the Mass Media	The role of the mass media in constructing and/or reinforcing unrealistic mythic and stereotypic images of sex, love, and romance.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	
MCO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	492	Honors Directed Study		N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6		Pre-requisites: Must be an Honors student
MCO	493	Honors Thesis		N	LEC	N	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6	L	Pre-requisites: Must be an Honors student
MCO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	497	Honors Colloquium		Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6		
MCO	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	501	Newswriting and Reporting	Designed for graduate students in the MMC program who have undergraduate degrees in nonjournalism areas. Objective is to teach fundamentals of writing and reporting. Fee.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	503	Media Law	Examines philosophical and legal aspects of press freedom. Emphasizes First Amendment theory evolution from 1791 to present.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	510	Media Research Methods	Professional approach to online and library research, getting and using public records, and investigative journalism techniques.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	520	Mass Communication Theories and Process	Analyzes various theoretic models of mass communication with emphasis on the applications of these theories to various professional communication needs.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	522	Mass Media and Society	Mass media as social institutions, particularly interaction with government and public. Emphasizes criticism and normative statements.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	525	21st-Century Media Organization and Entrepreneurship	Focuses on the future of journalism, the future of journalism business organizations and entrepreneurship, new media experiences, online solutions to popular media problems, financial realities of the media, and media innovation.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	530	History, Philosophy, and Ethics of Journalism	Explores contemporary news media ethical problems in a seminar setting. Uses journalism ethical perspectives to obtain keys to unlock contemporary dilemmas surrounding the news media.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	531	Advanced Broadcast Reporting	News and information practices of networks, stations, and industry. Practice in writing, reporting, and editing with emphasis on video.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	540	Historical/Legal Methods	Introduces legal and historical methods necessary to conduct qualitative mass communication research.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		
MCO	560	Arizona Media Law	Case study approach to first amendment issues, media access, libel, confidentiality, and invasion of privacy as applied to media organizations in Arizona.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		

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MCO	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		Pre-requisite: Masters of Mass Communication student
MCO	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		
MCO	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisite: Masters of Mass Communication student
MCO	120	Media and Society	Role of newspapers, magazines, radio, television, and motion pictures in American society. Credit is allowed for only MCO 120 or 110. Designed for nonmajors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
MCO	240	Media Issues in American Pop Culture	Examines the production and consumption of popular culture as disseminated by the mass media with emphasis on the societal implications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
MCO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MCO	418	History of Mass Communication	American journalism from its English and colonial origins to the present day. Development and influence of newspapers, magazines, radio, television, and news gathering agencies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
MCO	430	International Mass Communication	Comparative study of communication and media systems. Information gathering and dissemination under different political and cultural systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
MCO	450	Visual Communication	Theory and tradition of communication through the visual media with emphasis on the continuity of traditions common to modern visual media.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
MCO	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate, and image creation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
MCO	460	Race, Gender, and Media	Readings seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	C	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MET	150	Introduction to Engineering Technology	Introduces mechanical, manufacturing, and aeronautical engineering technology. Covers aspects of the industries utilizing these majors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		
MET	160	CADD and Solid Modeling	Uses 3-D solid modeling software to model mechanical parts and produce valid engineering drawings, including use of geometric dimensioning and tolerancing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
MET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
MET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	211	Statics	Vectors, forces and moments, force systems, equilibrium, analysis of basic structures and structural components, friction, centroids, and moments of inertia. May be repeated for credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 111 or PHY 121 with a D or better; APM 265, MAT 260 or MAT 270 with D or better
MET	230	Introduction to Engineering Materials	Introduces materials and their properties, emphasizing basic concepts and structures and how these properties relate to manufacturing and design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
MET	231	Manufacturing Processes	Design documentation and material processes on plastics, ferrous and nonferrous materials, emphasizing orthographic projection, geometric dimensioning and tolerances.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 160 and MET 230 with a D or better
MET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	300	Applied Material Science	Principles of materials science emphasizing concepts relevant to design, manufacturing, and use. Covers metals, polymers, ceramics, and composites.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation BAS student, OR MET 231 with D or better

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MET	302	Welding Survey	Theory and application of industrial welding processes; introductory welding metallurgy and weldment design; SMAW, GTAW, GMAW, oxyacetylene, and brazing experiences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisite: College of Technology and Innovation or Fulton Engineering students
MET	309	Nondestructive Testing and Quality Assurance	Part and material inspection using metrology and nondestructive inspection tools and techniques. Theory and application with use of pertinent standards.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: MET 231 with D or better OR Materials Joining Mfg Tech or Manufacturing Tech & Mgt BAS student
MET	313	Applied Mechanics of Materials	Stress, strain, stress-strain relations. Axial, shear, bending, torsional and combined loads and deflections.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisite: MET 211 or CEE 210, or MAE 212, or CON 221 with D or better OR College of Technology and Innovation MS Tech student
MET	314	Applied Mechanics of Materials Laboratory	Measurements of loads and deformations relating stress and strain in axial, shear, bending, torsional, and combined loading configurations.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: MET 313 or MAE 213 or MSE 211 or CON 223 or CEE 213 with a D or better; or be co-enrolled in one of the courses
MET	321	Introduction to Automotive Engineering	Engineering principles and the design of ground vehicles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312; MET 313; MET 340 completed with a grade of D or better
MET	331	Machine Design I	Applies mechanics to design of machine elements and structures. Stress analysis, failure modes, tolerances, cylindrical fits, and shaft design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Met 313 or CEE 213 or MAE 213 or CON 223
MET	340	Engineering Thermo-Fluids I	First and second laws of thermodynamics, systems, processes, equations of state, property tables. Fluid statics, conservation of momentum, Bernoulli's equation, applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 112 or PHY 131 with D or better; APM 266, APM 271, MAT 261, MAT 266 or MAT 271 with D or better
MET	341	Manufacturing Analysis	Organizational and functional requirements for effective production. Analysis of industrial specifications, geometric dimensioning and tolerancing, costs, and group technology. Writing assembly production plans.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231 with D or better or College of Technology and Innovation BAS or MS Tech student
MET	344	Casting and Forming Processes	Analyzes various forming processes to determine load requirements necessary for a particular metal-forming operation. Information used to select equipment and design tooling. Metal casting processes and design of castings. Introduces powder metallurgy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231; MET 300 (or MSE 250) with D or better OR College of Technology and Innovation BAS or MS Tech student
MET	345	Advanced Manufacturing Processes	Material removal processes emphasizing advanced turning, milling, and machinability studies using cutting tools. CNC programming for machining and turning centers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231 with D or better
MET	351	Introduction to Automation	Introduces automation. Topics include assembly techniques, fixed and flexible automation systems, robots, material-handling systems, sensors, and controls.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 210 or EEE 202
MET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	396	Professional Orientation	Topics related to a successful career in engineering technology industry. Includes safety, life-long learning, ethics, and career planning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisite: Junior or Senior standing
MET	400	Materials and Joining Processes	Effects of joining processes on metals and composites. Thermal cycle effects on solid-state and liquid-solid material transformations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	401	Quality Assurance	Statistical quality control methods, design of experiments, sampling, gauge requirements and specifications, use of quality assurance tools.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: APM 301 with D or better
MET	402	Advanced Material Joining	In-depth analysis of common materials-joining processes and their process parameters. Includes automation, soldering, and adhesive bonding. Lecture, lab.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	409	Applied Engineering Economics	Fundamentals of engineering economics in a practical, industry-based approach. Includes effects of depreciation, taxes, inflation, and replacement analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	410	Manufacturing Resource Management	Measures like cycle time, throughput, capacity, work-in-process, inventory, variability, and how they drive operating relationships in a factory. Credit is allowed for only MET 410 or 510.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 341 with D or better
MET	415	Manufacturing Simulation	Computer simulation of manufacturing operations. Discrete event simulation models range from individual processes to whole factories.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 341 with D or better
MET	416	Applied Computer-Integrated Manufacturing	Techniques and practices of computer-integrated manufacturing as applied in a broad range of industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.	CS	Pre-requisites: MET 341
MET	418	Composites Materials Manufacturing	Introduces composite materials and associated manufacturing issues, including tooling, processes, and quality control. Related issues, including testing and joining. Credit is allowed for only MET 418 or 518.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 300 or MSE 250
MET	421	Vehicle Powertrains	Internal combustion engine design, performance and operation, and power transmission systems within vehicles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312, MET 313, MET 340, with a grade of D or better
MET	423	Vehicle Chassis and Running Gear Design	Design and manufacture of chassis, structures, steering and braking systems and components, wheels and tires, suspension systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312, MET 331 completed with a grade of D or better
MET	424	Vehicle Electrical Systems	Vehicle electrical power and signal systems, computer control and analog control systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 210; MET 321; MET 421
MET	426	Vehicle Thermal Design	Heat management in vehicle systems, including thermal design of engine and transmission cooling systems, cabin heating, and air conditioning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 421; Pre/Co-requisite: MET 434

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MET	427	Vehicle System Integration and Testing	Systems engineering principles. Design of the interfaces between vehicle subsystems. Testing of integrated systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 423, & MET 424 with a grade of D or better
MET	432	Engineering Thermo-Fluids II	Thermodynamic analysis of mixtures and power cycles. Design and analysis of fluid systems, conduction heat transfer, and introduction to convection and radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 340 or MAE 240; Credit is allowed for only EGR or MET 432
MET	433	Thermal Power Systems	Analyzes gas power, vapor power, and refrigeration cycles. Components of air conditioning systems. Direct energy conversion. Psychrometry. Analyzes internal combustion engines and fluid machines.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Pre-requisites: MET 432 with D or better OR College of Technology and Innovation MS, MSE, MS Tech or PhD student
MET	434	Engineering Thermo-Fluids III	Transient conduction, convection and radiation heat transfer, heat exchangers, thermo-fluid systems engineering.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 with a grade of D or better, or currently enrolled
MET	435	Alternate Energy Sources	Alternate energy systems, energy use and its impact on the environment, and demonstrating practical alternative energy sources to fossil fuels.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	436	Turbomachinery Design	Applies thermodynamics and fluid mechanics to the analysis of machinery design and power cycle performance predictions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 434 with D or better; MET 340, ECE 340 or ETC 340 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	437	Design for Materials Joining	Uses design principles to analyze structures and determine appropriate weld/braze/solder or adhesive joint size. Uses welding codes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	438	Machine Design II	Applies mechanics to the design of machine elements and structures. Emphasizes basics of gears, springs, brakes, clutches, and bearings.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 331 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	440	Finite Element Analysis	Analyzes machine elements, frames, and aerospace structures employing finite element analysis and software. Includes sensitivity analysis and estimating accuracy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 331 with D or better
MET	442	Specialized Production Processes	Nontraditional manufacturing processes, emphasizing EDM, ECM, ECG, CM, PM, HERF, EBW, and LBW.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231
MET	443	CNC Computer Programming	Theory and application of N/C languages using CAM software and CNC machine tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 345
MET	444	Production Tooling	Design and fabrication of jigs, fixtures, and special industrial tooling related to manufacturing methods.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 345
MET	452	Implementation of Robots in Manufacturing	Robotic workcell design, including end effectors, parts presenters, and optimum material flow.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 351 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	455	Automation Systems Integration	Applies sensors and devices and their integration with PLCs and computers into automated devices and systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 351
MET	460	Capstone Project I	Group project designing, evaluating, and analyzing components, assemblies, and systems. Develop products/manufacturing techniques demonstrating state-of-the-art technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Senior academic level; MET 331 and MET 345 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	461	Capstone Project II	Small-group projects applying manufacturing techniques, with emphasis on demonstrating state-of-the-art technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Senior academic level; MET 460 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-6		
MET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
MET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Minimum Junior status; College of Technology and Innovation or Fulton Engineering student
MET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Minimum Junior standing; Manufacturing Engineering Tech student OR Technology and Innovation or Fulton Engineering graduate student
MET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
MET	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	501	Statistical Quality Control Applications	SPC problem-solving techniques for implementation in industrial setting; design and analysis of experiments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	502	Specialized Production Processes	Specialized production processes including lasers, electronic beam, abrasive and water jet, and chemical and thermal processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	504	Applications of Production Tooling	Design and fabrication of fixtures, jigs, templates, and specialized industrial tooling for manufacturing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater

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MET	507	Manufacturing Enterprise	Organization and project management of cellular manufacturing methods, including IIT and lean manufacturing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	509	Applied Engineering Economics	Fundamentals of engineering economics in a practical, industry-based approach. Includes effects of depreciation, taxes, inflation, and replacement analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	510	Manufacturing Resource Management	Measures like cycle time, throughput, capacity, work-in-process, inventory, variability, and how they drive operating relationships in a factory. Credit is allowed for only MET 510 or 410.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	512	Introduction to Robotics	Introduces industrial robots. Topics include: robot workspace, trajectory generation, robot actuators and sensors, design of end effectors, and economic justification. Application case studies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level OR Graduate or Non-degree students
MET	513	Advanced Automation	Analysis and design of hard and flexible automation systems. Particular attention to material-handling technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Minimum Senior Standing; College of Technology and Innovation or Fulton Engineering
MET	514	CNC Computer Programming	Theory and application of N/C languages using CAM software and CNC machine tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	515	Manufacturing Simulation	Computer simulation of manufacturing operations. Discrete event simulation models range from individual processes to whole factories.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	516	Applied Computer-Integrated Manufacturing	Techniques and practices of computer-integrated manufacturing as applied in a broad range of industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level OR Graduate or Non-degree students
MET	518	Composites Materials Manufacturing	Introduces composite materials and associated manufacturing issues, including tooling, processes, and quality control. Related issues, including testing and joining. Credit is allowed for only MET 518 or 418.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		
MET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
MGT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-3		
MGT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
MGT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
MGT	300	Organization and Management Leadership	Analyzes strategic, behavioral, and human resource management perspectives, including principles of strategic management and leadership of human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		WP Carey BS or BA student, or Business Minor student; PGS 101 or PGS 304 or SOC 101 or SOC 301 with C or better.
MGT	301	Principles of Management	Introduces the theoretical and practical foundations of organizations with a focus on individuals, groups, and organizational systems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: School of Global Management and Leadership student.

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MGT	302	Principles of International Business	Multidisciplinary analysis of international economic and financial environment. Operations of multinational firms and their interaction with home and host societies.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.	G	Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA, min 2.5 ASU business GPA and 56 earned hours; Must have completed ECN 212 or 214 with a grade of C or greater.
MGT	303	Honors Organizational Strategies, Leadership, and Behavior	Overview of business strategy principles, management processes, motivation, and leadership	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Honors student; PGS 101 or PGS 304 or SOC 101 or SOC 301 with grade of C or better.
MGT	310	Collaborative Team Skills	Development of skills in managing and working in collaborative environments. Theories and applications in small group dynamics and team facilitation.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student OR Non-business student with min 3.5 ASU cum GPA and min 56 earned hours.
MGT	320	Organizational Behavior	Management processes, fundamentals of business-level strategy, individual difference issues, motivation and leadership of people in organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-reqs: W.P. Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours.
MGT	350	Seminar in International Business	Broad exposure to global business; cross-cultural differences across business disciplines; European Union history and future; impact of exchange rates.	N	FLD	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student; SCM 300 with C or better, OR Non-business student with min 2.0 ASU cum GPA and 56 earned hrs and MGT 380 with C or better
MGT	380	Management and Strategy for Nonmajors	Introduces the functions and applications of management in organizations, including controlling, decision making, leadership, motivation, planning, and social responsibility. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Non-business student with a minimum ASU cumulative GPA of 2.00 and a minimum of 56 earned hours, OR Non degree or Grad student
MGT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W. P. Carey BS or BA student; Pre- or Co-requisite: ACC 240 or ACC 241 with C grade or better.
MGT	400	Cross-Cultural Management	Cultural role in international business relations; applied principles of cross-cultural communications, negotiations, and management; regional approaches to business relations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	C & G	Pre-requisites: WP Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 300 or 303 or 320 or 380 with C or better.
MGT	410	Responsible Management	Values, core beliefs, legal and ethical mandates and cultural norms as they apply to the conduct of organizations; application through a Service Learning project.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: WP Carey BS or BA student, or non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 300 or 303 or 320 or 380 with a grade of C or better
MGT	411	Leading Organizations	Comprehensive overview of leadership in organizations. Provides students with understanding of leadership research and its applications to global organizations and the development of leaders.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.		Pre-requisites: Must be a Global Business/Ldrshp Mngt or Global Business/Human Resource student with conditional or professional status AND completed MGT 301 with a grade of C or greater or be currently enrolled.
MGT	412	Managing Human Resources	Overview of domestic and global human resources management topics pertinent to managers and first-line supervisors, as well as those with interest in human resources management.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Global Business/Ldrshp Mngt or Global Business/Human Resource student with conditional or professional status, must not have earned credit for HRM 410, AND completed MGT 301 with a grade of C or greater.
MGT	420	Human Resource Management	Development of skills and knowledge to lead associates effectively: hiring, developing, evaluating, retaining, and rewarding employees. Preparation for leadership roles.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		WP Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 300 or 303 or 320 or 380
MGT	440	Entrepreneurship	Provides students with a framework and a skill set for identifying, evaluating, valuing, and developing entrepreneurial opportunities. Challenges students to develop and refine their individual entrepreneurial perspective. Case-based and interactive instruction.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student, MGT 300 or MGT310 or MGT 303 completed with a grade of C or greater.
MGT	445	Business Plan Development	Develops a complete strategic business plan emphasizing the planning process undertaken by successful small business owners and entrepreneurs.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student, OR non-business students with a minimum 2.5 ASU cumulative GPA and a minimum 2.5 ASU business GPA and at least 56 earned hours; MGT 440 completed with a grade of C or greater.
MGT	450	Changing Business Processes	Describes and analyzes business processes. Generates and evaluates alternatives. Creates improvement and implementation plans.	N	FLD	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: W.P. Carey Management BS or BA student; have completed ENG 302 or 301, FIN 300, MKT 300; have completed MGT 410 AND MGT 420 with a C or greater.
MGT	459	International Management	Concepts and practices of multinational and foreign firms. Objectives, strategies, policies, and organizational structures for operating in various environments.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	G	Pre-reqs: WP Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 302 or ECN 306 with a grade of C or better;
MGT	460	Strategic Management	Systems theory of organizations, strategy formulation and administration in organizations, creating organizational cohesiveness, and leading change within organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: WP Carey BS or BA student; min 56 earned hours; MGT 300 or 303 or 320 or 380; FIN 300; MKT 300 with "D" or better.
MGT	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	5.	L	Pre-requisites: Department approval; application process.
MGT	465	Collaborative Design Development II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	5.	L	Pre-requisites: Department approval; application process
MGT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey Management BS student.
MGT	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6		Pre-requisites: Must be an Honors student
MGT	493	Honors Thesis		N	THE	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
MGT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W.P. Carey BS or BA student OR non-business with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and min 56 earned hrs; MGT 300 or 302 or 303 or 310 or IBS 300 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MGT	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-6		
MGT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-7		Pre-requisites: W. P. Carey BS or BA student OR non Business students with a minimum GPA of 2.50 and either at least 56 earned hours or non degree students OR Graduate students
MGT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		Pre-requisites: W. P. Carey BS or BA student OR non Business students with a minimum GPA of 2.50 and either at least 56 earned hours or non degree students OR Graduate students
MGT	502	Organization Theory and Behavior	Understands human side of organizations through management theories and applications. Develops knowledge and skills for successful management of self and others.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: Specific W.P. Carey students
MGT	503	Human Resources Management: Principles and Skills	Emphasizes strategies for managing human resources and implementing HRM programs and policies that make people more productive and satisfied.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	504	Ethics and Corporate Social Responsibility	Reviews practical and conceptual tools to deal with the ethical implications of a variety of types of managerial decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	505	Leadership and the Knowledge Economy	Examines organizational processes that seek synergies between the information processing capacity of IT and the creative capacity of humans.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	512	Professional Relationship Management	Explores theories, methods, skills, and practices central to development of professional-level expertise in the management of relationships in the workplace.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in either the Accountancy & Applied Leadership graduate plan or the Applied Leadership & Management graduate plan.
MGT	513	Leadership Skills and Principles	In-depth study of traditional and emerging ways to demonstrate leadership effectively with emphasis on leadership development and coaching activities.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in either the Accountancy & Applied Leadership graduate plan or the Applied Leadership & Management graduate plan
MGT	514	Entrepreneurial Leaders	Applies leadership concepts to entrepreneurial processes. Considers independent entrepreneurs, as well as intrapreneurs within organizations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Applied Leadership & Management graduate plan; MGT 513 with C or better
MGT	515	The Neuroscience of Leadership	Provides a rigorous understanding of how the human brain supports leaders in thought, perception, decision-making, affect, action, and social processes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Mgt & Leadership graduate student in Acct & Applied Leadership or Applied Leadership & Mgt. Applied Leadership & Mgt students must have completed MGT 502, 503, 504, and 505 with C or better
MGT	522	Human Resource Activity and the Management of Diversity	Applies general and human resource management principles to work effectively with a diverse spectrum of people.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
MGT	523	Performance Management	Addresses effective management of people in organizations. Considers evaluating and improving performance using concepts and application.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	559	International Management	Studies international and cross-cultural influences on management processes and development of global leadership capabilities for experienced management professionals.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-3		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
MGT	561	Advanced Integrated Project	Capstone project of the high-technology ASU MBA. Student teams develop business plans for new technology-based products.	Y	FLD	Y	GNA	W.P. Carey School of Business	Department of Management	1-6		Pre-requisites: MBA degree student
MGT	570	Management Consulting	Develops understanding of how internal and external consultants add value.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		
MGT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	Department of Management	0-12		
MGT	588	Strategic Leadership	Explores the general manager as organizational leader. Focuses on competitive advantage and how each functional area contributes to it.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	589	Strategic Management	Formulation of strategy and policy in the organization, emphasizing the integration of decisions in the functional areas.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: Graduate W.P. Carey students or Public Administration MPA student
MGT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MGT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: MBA degree student
MGT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	0-12		
MGT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Management	1.		
MGT	596	Global Strategic Management Project	Experientially examines the interaction among the strategic forces within an organization with the competitive forces in the global environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in Applied Leadership & Management; MGT 502, 503, 504, and 505 with C or better
MGT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
MGT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Management	1-12		
MGT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
MGT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	SEM	Y	Z1	W.P. Carey School of Business	Department of Management	1-15		
MGT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	W.P. Carey School of Business	Department of Management	1.		
MGT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	W.P. Carey School of Business	Department of Management	1-15		
MGT	300	Organization and Management Leadership	Analyzes strategic, behavioral, and human resource management perspectives, including principles of strategic management and leadership of human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		WP Carey BS or BA student, or Business Minor student; PGS 101 or PGS 304 or SOC 101 or SOC 301 with C or better.
MGT	460	Strategic Management	Systems theory of organizations, strategy formulation and administration in organizations, creating organizational cohesiveness, and leading change within organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	L	Pre-requisites: W. P. Carey BS or BA student, or Global Management student with Professional or Conditional status AND have earned more than 75 hours/credits
MGT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-12		
MGT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		Pre-requisites: W.P. Carey BS or BA student OR non-business with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and min 56 earned hrs; MGT 300 or 302 or 303 or 310 or IBS 300 with C or better
MGT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-3		

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MHI	500	Research Methods	Course on research methods in a specific discipline.	Y	THE	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	538	Innovation and the Individual	Introduces the role of the innovator, including the essential behaviors of risk taking, managing workload, and addressing the challenges of innovation.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Masters of Healthcare Innovation
MHI	540	Understanding and Applying Principles of Evidence-Based Practice	Understanding how application of evidence-based practice principles assists healthcare professionals to provide the best care. May be repeated once for credit.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Masters of Healthcare Innovation
MHI	542	Systems Thinking in a Complex Environment	Studies basic and advanced systems principles as they relate to the American healthcare system. Specific emphasis is given to system assessment, designing system interventions, and managing system dysfunction from the innovator's perspective.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	544	Innovations in Information Systems	Allows students to develop their own learning goals around the innovative use of technology to: critically appraise and evaluate the use of technology to access information; develop skills in maximizing the use of technology to advance practice, thinking, and decision making; advance the integration of human potential and available technology; and develop strategies to address the competing priorities of technology, confidentiality, safety, high reliability principles, full disclosure to the public, and risk management. May be repeated once for credit.	N	SEM	Y	P/F	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	546	Communication for Innovation	Overview of traditional, contemporary and innovative communication strategies in the 21st century.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	548	Advanced Principles and Concepts of Innovation	Explores and analyzes the innovation in complex systems, focusing on developing specific skills for successful innovations.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	550	Healthcare Policy and Innovation	Introduces the political, organizational, and economic dimensions of healthcare policy, emphasizing strategies for innovative policy and practice.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	552	Financing for Innovation	Provides an overview of healthcare economics; develops budgeting, planning, and management skills; and culminates in financial analysis skills necessary to facilitate management decision making or writing business plans or grant proposals.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	554	Outcomes Evaluation	Outcomes measurement, management, and evaluation for healthcare practitioners and/or leaders. May be repeated once for credit.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	561	Capstone Innovation Project I	Capstone project to learn the active skills of healthcare innovation using an adapted IDEO model.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	562	Capstone Innovation Project II	Introduces the process of conceptualizing an innovation and building a plan or proposal to move forward with the innovation in either an entrepreneurial or intrapreneurial context.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
MHI	563	Capstone Innovation Project III	Finalizes the process of conceptualizing an innovation and building a plan or proposal to move forward with the innovation in either an entrepreneurial or intrapreneurial context.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
MHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
MHI	679	Biostatistics: Principles of Statistical Inference.	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
MHI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHL	140	Music as Culture	Introduces a range of practical and intellectual challenges presented by encounters with various kinds of music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must be a freshman
MHL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MHL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	201	Mac Literacy for Musicians	Instruction in basic Macintosh computer literacy, including generic applications and music-specific programs with hands-on experience. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	CS	
MHL	201	Mac Literacy for Musicians	Instruction in basic Macintosh computer literacy, including generic applications and music-specific programs with hands-on experience. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	CS	
MHL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		

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MHL	341	Music History	Western music from the Greeks to the present day. Need not be taken in sequence with MHL 342.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music student; MHL 140 with a C or better or currently enrolled; MTC 221 with a C or better or currently enrolled
MHL	342	Music History	See MHL 341.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MHL	344	Music in World Cultures	Examines the relations among music, dance, theatre, religion, and social status in Asia, Africa, Oceania, Europe, and the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & G	
MHL	344	Music in World Cultures	Examines the relations among music, dance, theatre, religion, and social status in Asia, Africa, Oceania, Europe, and the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & G	
MHL	352	The Evolution of Jazz	Origin, development, and styles of jazz music and its exponents.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	H	Pre-requisites: Music student; MTC 223 with C or better
MHL	363	Survey of Russian Music	Examines music and musical life in Russia, the Soviet Union, and the post-Soviet C.I.S. from the Middle Ages to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	Pre-requisites: Music student; MHL 342 with C or better
MHL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	438	Topics in 18th-Century Music	Selected topics exploring the musical styles of the 18th century and their cultural contexts.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	H	Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 223 with C or better
MHL	439	Topics in 19th-Century Music	Selected topics exploring the musical styles of the 19th century and their cultural contexts.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	L & H	Pre-requisites: Must be a Music student; must have completed MHL341 AND MHL342 AND MTC223 with a C or greater or be currently enrolled
MHL	440	Music Since 1900	Examines stylistic trends, major composers and their works, and cultural contexts in music since 1900.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 223 with a C or greater
MHL	456	History of Opera	Development of opera from its creation ca. 1600 to present. Emphasis placed on major stylistic developments and representative works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 222 with C or better
MHL	466	North American Indian Music	Various styles of Indian music in the United States, Canada, and Mexico. Open to Music majors and nonmajors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	(L or HU) & C	
MHL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	492	Honors Directed Study		N	THE	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MHL	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MHL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 222 with C or better
MHL	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MHL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MHL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MHL	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	532	Music Bibliography	Major historical and analytical writings; systematic and historical collections of music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Graduate Music student
MHL	535	Medieval Music	Music of Europe in the Middle Ages, Gregorian chant, religious and secular monophony and polyphony to 1400.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Graduate Music student
MHL	536	Music of the Renaissance	Music in Europe, with emphasis on stylistic concepts and changes, ca. 1400-1580.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Graduate Music student
MHL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MHL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Graduate Music student
MHL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	647	Topics in American Music	Selected topics in the history of music. Composers working in the Americas with emphasis upon music since 1900.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	657	Topics in Symphonic Literature	Examines the evolution of the symphony and symphonic poem from the early classic era through the 19th century, with emphasis on the analysis of selected works.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	664	History of Music Instruments	Surveys the history and development of music instruments in traditional, folk, and art cultures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	668	Introduction to Ethnomusicology	Introduces the theory and methodology of the discipline, including bibliography, fieldwork, transcription, analysis, and organology.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	670	Area Studies in Ethnomusicology	Study of the music of a particular culture, country, or area (e.g., music of Mexico, Latin America, China, Africa).	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	675	History of Choral Music	Major choral works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MHL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MIC	205	Microbiology	Introductory microbiology, emphasizing basic principles of microorganisms (bacteria, protozoa, algae, fungi, and viruses) and the role they play in health, ecology, and applied fields. May not be used for Microbiology credit unless a diagnostic test is passed. Both MIC 205 and MIC 206 required for SG General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SG	
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SG	
MIC	220	Biology of Microorganisms	Introductory microbiology for students majoring in the life sciences. Detailed study of microbial cells, their structure, genetics, physiology, and taxonomy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MIC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisite: Freshman standing; Maximum 25 hours
MIC	205	Microbiology	Introductory microbiology, emphasizing basic principles of microorganisms (bacteria, protozoa, algae, fungi, and viruses) and the role they play in health, ecology, and applied fields. May not be used for Microbiology credit unless a diagnostic test is passed. Both MIC 205 and MIC 206 required for SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SG	Pre-requisites: CHM 101 or CHM 113 with a D or better
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	SG	Pre-requisites: MIC 205 or MIC 220 with a D or better, or co-enrolled in MIC 205 or MIC 220
MIC	220	Biology of Microorganisms	Introductory microbiology for students majoring in the life sciences. Detailed study of microbial cells, their structure, genetics, physiology, and taxonomy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: CHM 116 and BIO 188 (or MBB 245)
MIC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	298	Honors Directed Study		N	RSC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
MIC	302	Advanced Bacteriology Laboratory	Advanced lab techniques in bacterial growth, physiology, and genetics, with an emphasis on quantitative data and formal lab reports. Both MIC 302 and 401 must be taken to secure L General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisite: MIC 206 with C or better; MIC 220 with C or better
MIC	314	HIV/AIDS: Science, Behavior, and Society	Overview of the basic biological, behavioral, and psychosocial aspects of HIV disease and AIDS.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	360	Bacterial Physiology	Mechanisms and control of cell metabolism, structures, and functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: MIC 220 with C or better
MIC	379	Medical Bacteriology	Principles of medical bacteriology with emphasis on bacterial infections, diagnostic testing, clinical symptoms, pathogenesis, and treatments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: MIC 220
MIC	380	Medical Parasitology	Parasitic diseases of humans, including life cycle events and clinical manifestations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: with a C or better, MIC 220
MIC	381	Pathogenic Microbes	Human host-bacterial interactions in infectious diseases with emphasis on pathogenesis and molecular mechanisms of bacterial virulence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MIC 220 and MIC 360 with a C or better
MIC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	401	Research Paper	Paper of 15 or more pages based on library or lab research in collaboration with a faculty member. Required of all Microbiology majors. Both MIC 302 and 401 must be taken to secure L General Studies credit.	N	RSC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	Pre-requisite: MIC 302 with C or better
MIC	402	Service Learning	K-12 tutoring internship; learning activities employed were originally developed as part of the Bio Reach Program. Requires weekly reflective writing. Fee.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	Pre-requisite: MIC 206 with C or better; MIC 220 with C or better
MIC	420	Immunology: Molecular and Cellular Foundations	Molecular and cellular foundations of immunology. Antibody/antigen interactions, cellular response, cytokines, immunogenetics, immunoregulation, autoimmunity, psychoneuroimmunology research/medical perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: Mic 220, with a grade of C or better
MIC	421	Experimental Immunology	Introduces the basic techniques, methods, and assays used in immunology. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: MIC 302 with a grade of C or better
MIC	425	Advanced Immunology	Surveys recent advances in immunology, including lymphocyte membranes, lymphokines/biochemistry, molecular genetics, theoretical immunology, immunoregulation, neuroimmunology, and immunologic diseases.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: MIC 420 with C or better
MIC	426	Medical Immunology	Concepts and clinical applications of medical immunology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or MBB 245) and BIO 188 (or MBB 247) and BIO 353 with a C or better
MIC	427	Immunoneuropsychology: Research Foundation	Mind and the immune system's mutual influence (including neuroimmunologic diseases), with an emphasis on the molecular and cellular mechanisms involved.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
MIC	428	Immunophilosophy	Integrates immunology and philosophy, including psychoneuroimmunology and the mind-body problem, and immunologic/psychologic perspectives on self and self-identity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MIC 420 or PHI 317 with a C or better. Students who have credit for PHI 428, may not enroll in MIC 428
MIC	441	Bacterial Genetics	Surveys genetic exchange and regulatory processes in bacteria and their viruses. Bacteria and viruses as tools in genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 340 with C or better; MIC 220 with C or better
MIC	442	Bacterial Genetics Laboratory	Techniques of mutagenesis, mapping, and strain and genetic library construction.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		Pre/Co-requisite: MIC 441

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MIC	445	Techniques in Molecular Biology/Genetics	Molecular genetic principles: plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation; immunologic detection, and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: BIO 340 with C or better; MIC 302 with C or better; Students with credit for MBB 445 may not enroll in MIC 445
MIC	446	Techniques in Molecular Biology/Genetics Lab	Molecular genetic techniques; plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation; immunologic detection, and electrophoresis.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: MBB 445 or MIC 445 (with C or better if completed); Credit is allowed for only MBB 446 or MIC 446
MIC	461	Geomicrobiology	Past and present interactions among microbial life, geological materials, and biogeochemical cycles involving carbon, sulfur, phosphate, nitrogen, and metals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	470	Bacterial Diversity and Systematics	Biology, classification, and enrichment culture of the nonpathogenic bacteria. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MIC 302 with C or better
MIC	475	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	485	General Virology	Fundamental principles of viruses, their molecular biology, replication, genetics, and pathogenesis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MIC 206 with C or better; MIC 220 with C or better
MIC	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
MIC	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
MIC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	495	Undergraduate Research	Supervised research in microbiology. May be repeated for credit.	N	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
MIC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
MIC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
MIC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
MIC	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	527	Neuroimmunology	Studies the mind's influence on immunity and the immune system's influence on the mind, neuroimmunologic diseases, and the neuroimmunological circuitry involved.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	585	Molecular Virology	Selected topics concerning molecular aspects of eukaryotic virus replication and pathogenesis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MIC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		

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MIC	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
MIC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MIC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
MIC	205	Microbiology	Introductory microbiology, emphasizing basic principles of microorganisms (bacteria, protozoa, algae, fungi, and viruses) and the role they play in health, ecology, and applied fields. May not be used for Microbiology credit unless a diagnostic test is passed. Both MIC 205 and MIC 206 required for SG General Studies credit.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SG	Pre-requisites: CHM 101 or CHM 113 with a D or better
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SG	Pre-requisites: MIC 205 or MIC 220 with a D or better, or co-enrolled in MIC 205 or MIC 220
MIC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MIS	101	Introduction to the Military I	Overview of mission, organization, and structure of the Army and its role in national defense; discussion of current military issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	102	Introduction to the Military II	Introduces problem-solving methods, critical thinking, decision making, and group cohesion as applied in a military environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-3		Pre-requisite: Freshman standing; Maximum 25 hours
MIS	201	Introduction to Leadership Dynamics I	Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	202	Introduction to Leadership Dynamics II	Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	205	Leader's Training Course	6-week training program emphasizing practical hands-on skills and leadership development. Taken in lieu of MIS 101, 102, 201, 202. Conducted at Fort Knox, Kentucky.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	4.		
MIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	301	Advanced Military Science I	Theory and dynamics of the individual soldier and military units in offensive combat operations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	L	
MIS	302	Advanced Military Science II	Theory and dynamics of military units in defensive combat operations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	L	
MIS	303	National Advanced Leadership Camp	6-week training program emphasizing leadership development and advanced military skills, including tactics, land navigation, and physical training. Conducted at Fort Lewis, Washington.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	4.		
MIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	401	Advanced Military Science III	Military legal system; preparation and conduct of military training; leadership development; ethics and professionalism of the military officer. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	402	Advanced Military Science IV	Military correspondence; career planning and personal affairs in service; conduct of training; leadership development; ethics and professionalism of the military officer. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	410	American Defense Policy I	Evolution, organization, and execution of U.S. national security policy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	SB & G & H	
MIS	412	American Defense Policy II	Contemporary problems and analytical issues in the formation and implementation of U.S. national security.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	SB & G & H	
MIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Military Science	1-12		
MIS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Military Science	1-6	L	Pre-requisites: Must be an Honors student
MIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-7		
MIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Military Science	1-3		
MIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Military Science	0.		
MKT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-3		
MKT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		
MKT	300	Marketing and Business Performance	The dynamic role of marketing within society and organizations. Emphasizes frameworks and analytical tools that ensure customer focus and drive organizational performance.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: Non-Marketing W.P. Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA and 2.5 ASU business GPA; ECN 211 or ECN 212 with a grade of C or better or be currently enrolled.
MKT	301	Fundamentals of Marketing	Examines the role and process of marketing within the society, economy, and business organization.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Prerequisite(s): School of Global Management and Leadership student with Professional OR Conditional status
MKT	302	Applied Marketing Management and Leadership	Market planning, execution, and assessment. Emphasizes decision and communication skills related to market opportunity analyses and marketing program development as a core business function.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.	L	Pre-requisite: W.P. Carey Marketing BS student; ACC 241 and ECN 221 with C or better
MKT	303	Honors Marketing Theory and Practice	Covers basic applications of marketing concepts to problems that are common to marketing managers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Honors student; ACC 241 and ECN 221 with C or better; Students may not sign up for MKT 303 who have received a D or better in MKT 300 or MKT 302
MKT	352	Marketing Research	Knowledge and skills to make intelligent decisions in the design, evaluation and application of marketing research and market data. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.	L	Pre-requisite: W. P. Carey Marketing student; MKT 302 or MKT 303 with C or better
MKT	360	Seminar in International Business	Broad exposure to global business and cross-cultural differences. Emphasizes the European Union history and future and the impact of financial issues on marketing practices. Lecture, discussion, group work.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with a minimum 2.5 ASU cum GPA and min 2.5 ASU business GPA and min 56 earned hours; SCM 300 with a grade of C or greater
MKT	365	Advertising Management	Advertising as a communications tool in marketing and business. Consideration of market segmentation and positioning, creative strategy, media management, and metrics of effectiveness.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student or non-business student with a minimum 2.5 ASU cum GPA, 2.5 ASU business GPA and 56 earned hours; must have completed MKT 300 or MKT 302 or MKT 303 with a grade of C or better.
MKT	390	Essentials of Marketing	Focuses on the nature and processes of marketing with an emphasis on practical application. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	391	Essentials of Selling	Focuses on the selling process and its practical applications within consumer and business markets. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	393	Essentials of Applied International Marketing	Travel to companies outside the United States to benchmark and assess cross-cultural marketing practices. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: Non-Marketing student; Minimum ASU cumulative GPA of 2.00; Minimum 56 hours OR be a Non-degree seeking student OR be a Graduate student
MKT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: Non marketing students; Must have a minimum cumulative GPA of 2.00; Must have at least 56 total earned hours or be a non-degree seeking or Graduate student
MKT	395	Essentials of Advertising and Marketing Communication	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	402	Consumer Behavior	Applies behavioral concepts in the analysis of consumer behavior and the use of behavioral analysis in marketing strategy formulation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; must have completed MKT 352 with a grade of C or better.
MKT	410	Sales and Sales Management	Constructive investigation of selling processes, their application in business and consumer contexts, and management of the sales function.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with minimum 2.5 ASU cumulative GPA, minimum 2.5 ASU business GPA and 56 earned hours; must have completed MKT 302 or MKT 303 with a grade of C or better.
MKT	410-W	Consumer Behavior	Applies social, cultural, and behavioral concepts for analyzing consumer behavior, with implications for marketing strategy and marketing communication strategy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		Pre-requisites: Must be a Global Business/Marketing student with Professional or Conditional status AND completion of MKT 300 or 301 with a grade of C or better.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MKT	413	Marketing Research Concepts and Practice	Research techniques for collecting, analyzing, and interpreting marketing information. Includes design and completion of a client-sponsored, industry-based research project.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		
MKT	414	Global Strategic Marketing	Examines marketing and marketing communication strategy development, and evaluation in the context of global markets and organizational objectives.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		Pre-requisite: Global Mgt Marketing or Int'l Studies student with conditional or professional status; MKT 300, MKT 301 or GLB 301 with C or better
MKT	415	Promotion Management	Market positioning and integration of promotional activities and marketing communications of the firm, including advertising, personal selling, public relations, and sales promotion.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cumulative GPA, 2.5 ASU business GPA and 56 earned hours; must have completed MKT 302 or MKT 303 with a grade of C or better.
MKT	420	Retail Management	The role of marketing in retailing and retail performance. Challenges and processes of retail management across various institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; must have completed MKT 302 or MKT 303 with a grade of C or better.
MKT	425	Global Marketing Management	Analyzes marketing strategies and practices developed by firms to compete in global markets and adapt to changing international environments.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 with C or better
MKT	442	Services Marketing Strategy	Concepts, skills, and strategies for addressing the imperative marketing challenges and opportunities involving service.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402
MKT	452	Business-to-Business Marketing Strategy	Concepts, skills, and strategies for performing competitively in the business market where organizations rather than households are the customers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402
MKT	462	Competitive Marketing Strategy	Strategy formulation and decision making by the marketing executive. Integrates marketing programs and considers competitive marketing issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402.
MKT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W. P. Carey Marketing BS student; MKT 302 or MKT 303 with B or better
MKT	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Marketing	1-6		
MKT	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Marketing	1-6	L	Pre-requisites: Must be an Honors student
MKT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA; MKT 302 or MKT 303 with a grade of C or better.
MKT	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-6		
MKT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-7		Pre-requisites: Business students with professional status or non-business students with a minimum cumulative GPA of 2.50 and 56 earned hours
MKT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-3		Pre-requisites: Business students with professional status or non-business students with a minimum cumulative GPA of 2.50 and 56 earned hours
MKT	502	Marketing Management	Managing the marketing function; market and environmental analysis; marketing planning, strategy, and control concepts. Development and management of marketing programs.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
MKT	510	Understanding Buyer Behavior	Examines behavioral science concepts and theories from the perspective of a marketing researcher who needs knowledge of customer behavior to aid marketing managers as they develop, evaluate, and implement effective marketing strategies for new and existing products.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	513	Marketing Research for Product Development I	Covers qualitative and interpretive methodologies designed to understand and capture the voice of customers with the aim of infusing research results into the new product development process. Covers methods such as ethnographic and observational research, visual documentation, focus groups, in-depth interviews, and artifact analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	514	Marketing Research for Product Development II	Provides theoretical and practical knowledge regarding the market assessment and survey research methods that underlie product development in organizations. Focuses on research techniques particularly applicable to the opportunity identification and concept/project evaluation stages of the new product development process.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better or currently enrolled

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MKT	515	Marketing Research for Product Development III	Emphasizes theory and tools useful for refining product development decisions involving narrow product development issues. Covers research techniques that are well suited for fine-tuning new product/service decisions associated with imminent market launch. Covers experimental designs, customer choice modeling, and lab and field test marketing along with appropriate data collection, measurement, and data analysis techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better, or currently enrolled
MKT	524	Services Marketing	Strategies for marketing services emphasizing the distinctive challenges and approaches that make marketing of services different from marketing manufactured goods.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey Graduate students; Must have completed HSA 502 or MKT 502 with a grade of C or greater or be currently enrolled
MKT	530	Creativity and Innovation	Multidisciplinary approaches to theories and practices of inspiring and managing innovation and change for sustainable competitive advantage. Focuses on both the student's individual creativity and the planning and implementation of innovations, technologies, processes, or systems that pose significant uncertainty. Places special attention on the processes surrounding understanding the consumer, ideation and implementation. Inclusive in this are methods such as environmental scanning, scenario planning, contextual research, storytelling, concept testing and prototyping. Also includes the many aspects of the organization's structure and culture regarding innovation and creativity.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	550	Innovative Brand Management and Marketing Communication	Focuses on innovative approaches to brand development and management throughout the product life cycle. Emphasizes marketing communications in a fundamental aspect of this process. The demand for innovative practices is especially evident in many aspects, including new media, social media, technology, open sourcing, and customer co-creation of brands. Addresses the role of customer understanding to market success. Brand management and marketing communication are dominant innovation decision areas within marketing.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	560	Customer Relationship Management	Covers approaches for customer relationship management (CRM) including assessing customer value, prospect/customer identification and targeting, assessment and development of customer life-time value, and customer attrition and retention. Covers CRM issues, techniques, and terminology associated with database marketing and data mining for analytical opportunity identification. Students must complete a project using CRM software in order to demonstrate their command of CRM issues, both conceptually and practically.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better, or currently enrolled
MKT	563	Marketing Strategy	Planning and control concepts and methods for developing and evaluating strategic policy from a marketing perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey Graduate student; MKT 502 with C or better
MKT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W. P. Carey MBA Full Time student.
MKT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: Global Management Graduate student; MKT 502 with C or better
MKT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		

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MKT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
MKT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
MKT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-15		
MKT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Marketing	1-15		
MKT	300	Marketing and Business Performance	The dynamic role of marketing within society and organizations. Emphasizes frameworks and analytical tools that ensure customer focus and drive organizational performance.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
MKT	410	Sales and Sales Management	Constructive investigation of selling processes, their application in business and consumer contexts, and management of the sales function.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
MKT	420	Retail Management	The role of marketing in retailing and retail performance. Challenges and processes of retail management across various institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
MLS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
MLS	501	Writing about Social Issues: Culture, Gender, Society, and Well-Being in the Southwest	Reading and discussion of nonfiction writing on social issues that integrate cultural, gender, and societal issues that affect the well-being of urban communities with special attention to the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	502	Religion, Culture, and Health: Where Cultures Intersect	Focuses on how cultural and religious notions may come into conflict around issues of health. Contrasts two societies, not necessarily contemporary, from different continents.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	503	Ethics, Science, and Culture	Introduces ethics related to the practice of art, science, and medical practice in modern and premodern society.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	504	Film Analysis	Introduce formal and cultural issues important to understanding movies.	N	DIS	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student

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MLS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		Pre-requisite: Master of Liberal Studies student
MSC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MSC	345	Desert Gold Chorale	Performs folk and standard choral repertoire, including Bach, Mozart, Schubert, and Handel, as well as contemporary pop, jazz and musical theatre, including George Gershwin, Harold Arlen, Richard Rodgers, and Lennon and McCartney.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MSC	436	American Film Musicals	A cultural history of American film musicals.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	
MSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MSE	100	Introduction of Materials Engineering	Engineering design process, concepts about materials, and the materials engineering profession, including teaming, computer models, communication, and societal impact. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	2.		Pre-requisites: Undergraduate Engineering or University College student
MSE	111	Challenges in Materials Engineering	Introduces current issues and concepts of materials engineering, relationship between materials properties, application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	1.		
MSE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-3		
MSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		
MSE	208	Patterns in Nature	Project-oriented science course with computer training to develop critical thinking and technical skills for student-oriented K-12 science lessons. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	4.	SQ	
MSE	211	Introduction to Mechanics of Materials	Topics include stress, strain, elasticity, axial loading, torsion, bending, yield criteria, fracture, general energy methods and Castigliano's Theorem.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: PHY 121 completed with D or currently enrolled; PHY 122 completed with D or currently enrolled; MSE 250 or ECE 350 completed with a D or currently enrolled in MSE 250
MSE	215	Materials Synthesis	Introduces contemporary techniques for synthesizing both traditional and novel materials and the corresponding correlation to synthesized materials properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre/Co-requisite: MSE 250 with C or better if completed
MSE	250	Structure and Properties of Materials	Basic concepts of material structure and its relation to properties. Application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: CHM 114 (or CHM 115) OR CHM 113 with a co-req of CHM 116
MSE	308	Sensing the World	Project-oriented science course develops critical thinking and technical skill using Internet modules on the five senses.	N	LEL	N	OPT	Ira A. Fulton Engineering	Materials Program	4.	SQ	Pre-requisite: MSE 208
MSE	315	Mathematical and Computer Methods in Materials	Mathematical, computational, and statistical methods and computer programming used to model materials science phenomena and materials engineering applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	CS	Pre-requisites: Engineering BS/BSE students OR Non-Engineering students with a minimum GPA of 3.00; MAT 275 (or MAT 274) with C or better; MSE 250 with C or better
MSE	330	Thermodynamics of Materials	Principles of statistical mechanics, statistical thermodynamics of single crystals, solutions, phase equilibrium, free energy of reactions, free electron theory, and thermodynamics of defects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.00; MSE 250 or ECE 350 completed with D or better or currently enrolled in MSE 250
MSE	335	Materials Kinetics and Processing	Introduces kinetics in processing of materials as illustrated through real-world materials processing examples.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: MSE 330 completed with D or better or currently enrolled; Engineering BS/BSE students
MSE	355	Materials Structure and Microstructure	Elements of the structure of metals and alloys, measurement of mechanical properties, and optical metallography. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with a C or better,OR Graduate Engineering student
MSE	356	Materials Structure and Microstructure Lab	Lab experiments correlating atomic structure, defects and microstructure of processed metals, ceramics polymers and composites to their mechanical and thermal properties. fee	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre/Co-requisite: MSE 355
MSE	358	Introduction to Electronic, Magnetic, and Optical Properties	Introduces electrical, optical, and magnetic properties of solids and microstructure effects as examined through materials-based examples.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: MSE 315 completed with D or better or currently enrolled; Engineering BS/BSE students
MSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		

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MSE	420	Physical Metallurgy	Crystal structure and defects. Phase diagrams, metallography, solidification and casting, deformation, and annealing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with D or better or currently enrolled OR Graduate Engineering student
MSE	421	Physical Metallurgy Laboratory	Focuses on analysis of microstructure of metals and alloys and includes correlation with mechanical properties to some extent. fee	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre/Co-requisite: MSE 420
MSE	431	Materials Electrochemistry and Corrosion	Introduces terms, the structure of electrified interface and review of thermodynamics of chemical reactions, Faraday's Law, electrochemical thermodynamics; metal/ion potentials, redox potentials, hydrogen and oxygen electrode, Pourbaix diagrams, electrical double layer, electrocapillarity, Lippmann equation, electrochemical kinetics, theory of overvoltage, kinetics of corrosion, mixed potential theory, polarization curves, passivation of metals, pitting, fuel cells, electrodeposition.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 330 completed with D or better
MSE	440	Mechanical Properties of Solids	Effects of environmental and microstructural variables of mechanical properties, including plastic deformation, fatigue, creep, brittle fracture, and internal friction. Credit is allowed for only MSE 440 or 516.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 355 completed with a D or better or currently enrolled in MSE 355
MSE	441	Analysis of Material Failures	Identifies types of failures. Analytical techniques. Fractography, SEM, nondestructive inspection, and metallography. Mechanical and electronic components. Credit is allowed for only MSE 441 or 512.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with a C or better or ECE 350 with D or better
MSE	450	Introduction to Materials Characterization	Introduces materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; PHY 131; MSE 355; Students who have credit for MSE 510, may not enroll in MSE 450
MSE	451	Introduction to Materials Characterization Lab	Lab for materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES. Fee.	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre-requisites: Engineering BS/BSE student; Co-requisite: MSE 450
MSE	470	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better or currently enrolled; CEE 213, MAE 213 or MSE 211 with D or better or currently enrolled; MAT 343, MAT 242 or MAT 342 with D or better or currently enrolled
MSE	471	Introduction to Ceramics	Principles of structure and property relations in ceramic materials. Processing techniques. Applications in mechanical, electronic, and superconducting systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with a D or better or currently enrolled in MSE 250
MSE	475	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with C or better; May not enroll in MSE 475 if received credit for MSE 518
MSE	476	Growth and Processing of Semiconductors	Briefly introduces semiconducting materials and emphasizes the characteristics of defects in semiconductors and their influence on electronic properties. Covers principles of growth of bulk crystals, epitaxial growth, oxidation, diffusion, ion implantation, and metallization. Discusses the introduction of defects during growth and processing of semiconductors and their influence on device behavior. Credit is allowed for only MSE 476 or 519.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better. May not enroll in MSE 476, if received credit for MSE 519
MSE	482	Materials Engineering Design	Principles of the design process. Feasibility and optimization. Manufacturing processes, materials selection, failure analysis, and economics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	L	Pre-requisites: Engineering BS/BSE student; MSE 420 with a D or better or currently enrolled; Pre- or Co-requisites: MSE 470 and MSE 471 (with D or better if completed) OR Graduate Engineering students
MSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	490	Capstone Design Project	For small groups in fundamental or applied aspects of engineering materials; emphasizes experimental problems and design. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	L	Pre-requisite: Engineering BS/BSE student; MSE 482
MSE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Materials Program	1-6		Pre-requisites: Honors students only
MSE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Materials Program	1-6	L	Pre-requisites: Honors students only
MSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		Pre-requisite: Engineering BS/BSE student
MSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-7		Pre-requisite: Engineering BS/BSE or Engineering Graduate student
MSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Ira A. Fulton Engineering	Materials Program	1-3		
MSE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	510	Introduction to Materials Characterization	Introduces materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Students who have credit for mse 450, may not enroll in MSE 510

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MSE	511	Corrosion and Corrosion Control	Introduces corrosion mechanisms and methods of preventing corrosion. Topics include: electrochemistry, polarization, corrosion rates, oxidation, coatings, and cathodic protection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	512	Analysis of Material Failures	Identifies types of failures. Analytical techniques. Fractography, SEM, nondestructive inspection, and metallography. Mechanical and electronic components. Credit is allowed for only MSE 512 or 441.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	513	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	514	Physical Metallurgy	Crystal structure and defects. Phase diagrams, metallography, solidification and casting, and deformation and annealing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	515	Thermodynamics of Materials	Principles of statistical mechanics, statistical thermodynamics of single crystals, solutions, phase equilibrium, free energy of reactions, free electron theory, and thermodynamics of defects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	516	Mechanical Properties of Solids	Effects of environmental and microstructural variables of mechanical properties, including plastic deformation, fatigue, creep, brittle fracture, and internal friction. Credit is allowed for only MSE 516 or 440.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	517	Introduction to Ceramics	Principles of structure, property relations in ceramic materials. Processing techniques. Applications in mechanical, electronic, and superconducting systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in CHE 518, EEE 518, or MSE 475 you may not enroll in MSE 518
MSE	519	Growth and Processing of Semiconductors	Briefly introduces semiconducting materials and emphasizes the characteristics of defects in semiconductors and their influence on electronic properties. Covers principles of growth of bulk crystals, epitaxial growth, oxidation, diffusion, ion implantation, and metallization. Discusses the introduction of defects during growth and processing of semiconductors and their influence on device behavior. Credit is allowed for only MSE 519 or 476.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	520	Theory of Crystalline Solids	Anisotropic properties of crystals; tensor treatment of elastic, magnetic, electric and thermal properties, and crystallography of Martensitic transformations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	521	Defects in Crystalline Solids	Introduces the geometry, interaction, and equilibrium between dislocations and point defects. Discusses relations between defects and properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	523	Structural and Mechanical Properties of Materials	Designed for first-year PhD students in the School of Materials. Topics include crystallography theory, tensor properties of materials, elasticity, crystal defects, dislocation theory, plasticity, fracture, fatigue, and creep.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	524	Advanced Thermodynamics	Equilibrium thermodynamics. Chemical reactions, phase equilibria, and stability in multicomponent systems. Aqueous solutions and electrochemistry. Introduces statistical thermodynamics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Credit is allowed for only CHM 541 or MSE 524
MSE	525	Physics of Materials	Teaches fundamental concepts of applied physics as related to the solid state. Wave-particle duality and the Schrodinger equation; chemical cohesion, bonds and energy bands in metals and insulators; optical, electronic, and magnetic properties. Requires a basic knowledge of differential equations; linear algebra; and electrical, magnetic, and optical properties of materials. A course in modern physics is highly recommended, but not required.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	526	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 511 or 481.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	527	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	540	Fracture, Fatigue, and Creep	Relationship between microstructure and fracture; fatigue and creep properties of materials. Environmental effects and recent developments. Current theories and experimental results.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	550	Advanced Materials Characterization	Analytical instrumentation for characterization of materials; SEM, SIMS, Auger, analytical TEM, and other advanced research techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student

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MSE	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Credit is allowed for only MSE, NAN, PHY or SEM 552
MSE	553	Electron Microscopy Laboratory I	Lab support for MSE 552.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	1-3		Prerequisite(s): degree- or nondegree-seeking graduate. Corequisite(s): MSE 552 (or PHY 552). Credit is allowed for only MSE 553 or PHY 553
MSE	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent-beam diffraction, and electron holography. Novel developments and applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	555	Electron Microscopy Laboratory II	Lab support for MSE 554.	N	LAB	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	561	Phase Transformations, Kinetics, and Diffusion in Solids	Hetero/homogeneous diffusion-controlled transformations, order-disorder transformations, and shear martensitic) athermal transformations in solids. Courses in advanced thermodynamics and structure and properties of materials are strongly recommended in preparation for this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	562	Ion Implantation	Includes defect production and annealing. Generalized treatment, including ion implantation, neutron irradiation damage, and the interaction of other incident beams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	565	Structural Materials in Nuclear Power Systems	Provides an overview of reactor systems and discusses the structural materials used in reactor components (e.g., fuel/core, wall/blanket, heat exchanger, and steam turbine materials). Discusses design considerations and materials degradation processes that occur in service. Emphasizes the effect of radiation damage on materials properties. Reviews reactor systems, including fission- (e.g., PWR, LWR, BWR, LMFBR) and fusion-based reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	570	Polymer Structure and Properties	Relationships between structure and properties of synthetic polymers, including glass transition, molecular relaxations, crystalline state viscoelasticity, morphological characterization, and processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	571	Ceramics	Includes ceramic processing, casting, molding, firing, sintering, crystal defects, and mechanical, electronic, and physical properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	573	Magnetic Materials	Emphasizes ferromagnetic and ferrimagnetic phenomena. Domains, magnetic anisotropy, and magnetostriction. Study of commercial magnetic materials.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		Pre-requisite: Materials & Science Engineering Masters student
MSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Materials Program	1.		
MSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		Pre-requisite: Graduate Engineering student OR Science & Engr of Materials student
MSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Materials Program	1-12		Pre-requisite: Materials & Science Engineering Masters student
MSE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		

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MSE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-15		Pre-requisite: Materials Science & Engineering PhD student
MSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Materials Program	1.		
MSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Materials Program	1-15		Pre-requisite: Materials Science & Engineering PhD student
MTC	123	Beginning Composition	Intended for freshmen and sophomores in the composition concentration. Introduces composing. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Must be a music student in the music composition (FAMUSTCBM) plan
MTC	125	Basic Music Theory	Notation, scales, keys, modes, intervals, chords, basic part writing and composition. Development of related aural skills through sightsinging and dictation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student
MTC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MTC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	221	Music Theory: 18th Century	Styles, techniques, and idioms of 18th-century music; emphasis on analysis, composition (part writing), and related aural skills, with applications for performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 125 with C or better
MTC	222	Music Theory: 19th Century	Styles, techniques, and idioms of 19th-century music; emphasis on analysis, composition (part writing), and related aural skills, with applications for performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 221 with C or better
MTC	223	Music Theory: 20th Century	Styles, techniques, and idioms of 20th-century music; emphasizes innovative treatments of musical elements, analysis, and composition; related aural skills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 222 with C or better
MTC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MTC	315	Modern Arranging	Techniques in arranging for the contemporary jazz, radio, television, and studio orchestra.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a Music student; MTC 223 with C or better
MTC	316	Modern Arranging	Continuation of MTC 315.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Prerequisite: Bachelor of Music student; MTC 315 with C or better
MTC	320	Modal Counterpoint	Counterpoint based on 16th-century vocal polyphonic style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MTC	321	Tonal Counterpoint	Counterpoint based on 18th-century polyphonic style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MTC	323	Composition	Writing music compositions, with emphasis on basic techniques and smaller structures. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisites: Must be a Bachelor of Music student
MTC	327	Intermediate form and Analysis	Organizing elements in the most important contrapuntal and homophonic musical forms from the Renaissance through the 19th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC222 with a C or greater or be currently enrolled
MTC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	422	Musical Acoustics	Properties of sound and tone. Harmonic series, instruments, the ear, auditorium acoustics, and the reproduction of sound. Assumes a thorough knowledge of musical notation, intervals, scales, and harmony, or 2 years of music theory.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; Passed audition

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MTC	425	Studies in 20th-Century Theory	Continued development of analytical techniques and aural skill, with an examination of theoretical systems applicable to 20th-century music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC223 with a C or greater or be currently enrolled
MTC	428	Advanced form and Analysis	Organizing principles of the large forms of musical composition in the 19th and 20th centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC223 with a C or greater or be currently enrolled
MTC	429	Canon and Fugue	Writing of canons and fugues in tonal style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MTC 321 with C or better
MTC	430	20th-Century Counterpoint	Counterpoint studies utilizing 20th-century idioms.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MTC 223 with C or better
MTC	433	Orchestration	Studies scoring music for full and chamber orchestras; examines individual orchestral instruments (characteristics and performance techniques).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student
MTC	436	Electronic Studio Techniques I	Principles of analog electronic music systems and their application in the composition of electronic music. Assumes a thorough knowledge of music notation and intervals.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	437	Electronic Studio Techniques II	Principles of digital electronic music systems and their applications in the composition of electronic music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	440	Jazz Theory and Ear Training	Advanced study of jazz harmonic systems. Daily oral drills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	441	Jazz Composition	Creative writing in the smaller forms and in the idiom of jazz.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisites: Must be a Music student; must have completed MTC 321 AND MUP 236 with a C or greater or be currently enrolled
MTC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MTC	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MTC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	495	Final Project	Half recital of compositions or approval of a large-scale composition or a research paper.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Music	0.		
MTC	496	Theory Project	Supervised individual writing project dealing with music theory.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MTC	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MTC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MTC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MTC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	516	Baroque Music	Detailed analysis of selected examples of music from the Baroque period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	517	Classic Music	Detailed analysis of selected examples of music from the Classic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	518	Romantic Music	Detailed analysis of selected examples of music from the Romantic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	519	Late 19th-Early 20th Century Music	Detailed analysis of selected examples of music from the late 19th and early 20th centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	520	Analytical Techniques	Analytical techniques systematically applied to music. Concentration on structural and compositional procedures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	523	Advanced Composition	Advanced music composition, including complex techniques and larger structure. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisite: Graduate Music student
MTC	525	Pedagogy of Theory	Practices and principles of teaching music theory. Emphasizes most desirable and practical offerings possible. Comparative studies of existing practices.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	527	History of Music Theory	Theory from Pythagoras to the 16th century. Need not be taken in sequence with MTC 528.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	528	History of Music Theory	Theory from the 17th century to the present. Need not be taken in sequence with MTC 527.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student

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MTC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisite: Graduate Music student
MTC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	723	Advanced Composition	Special problems in writing in complex forms and textures.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MTC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed MAT 113, 114, 117, 119, 142, 170, 210, 270 or 271 with a grade of D or greater or be currently enrolled.
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed MTE 180 with a grade of D or greater or be currently enrolled

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MTE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Pre-requisite: Freshman standing; Maximum 25 earned hours
MTE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MTE	380	Arithmetic in the Elementary School	Historical numeration systems, overview of elementary number theory, including primes, factorization, divisibility, bases, modular systems, linear congruence, and continued fractions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	381	Geometry in the Elementary School	Informal geometry, including concepts of length, area, volume, similarity, and congruence. Classification of figures, straightedge and compass constructions, and motion geometry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in mathematics education. Requires weekly reflective reading and writing. May be repeated for credit. Fee.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	C	
MTE	482	Methods of Teaching Mathematics in Secondary School	Examines secondary school curricular material and analyzes instructional devices. Teaching strategies, evaluative techniques, diagnosis, and remediation and problem solving. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	483	Mathematics in the Secondary School	Topics in geometry, number theory, algebra, and analysis. Emphasizes unifying principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MTE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
MTE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
MTE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
MTE	585	Modern Geometry for Teachers	Euclidean, projective, and non-Euclidean geometries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	587	Analysis for Teachers	Subject matter in mathematics appropriate for accelerated programs in secondary schools, including analytic geometry and calculus.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		

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MTE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MTE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MTE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MTE	588	Analysis for Teachers		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MTE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MTE	482	Methods of Teaching Mathematics in Secondary School	Examines secondary school curricular material and analyzes instructional devices. Teaching strategies, evaluative techniques, diagnosis, and remediation and problem solving. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MU	502	Hist Musical Style		N	LEC	N	CNV	Herberger College of the Arts	School of Music	2.		
MUE	110	Introduction to Music Education	Overview of music education. Orientation to student characteristics, teacher roles, and foundations of philosophy and history. Requires school observations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student
MUE	161	Introduction to Music Therapy	Overview of the profession of music therapy and its applications in mental health, rehabilitation, and special education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MUE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	211	Music in Recreation	Materials, methods, and organizational structures appropriate for recreational music.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	261	Music Therapy as a Behavioral Science	Orientation to preclinical experience with emphasis on observation skills, assessment, goal setting, and professional ethics. Requires off-campus observations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MUE161 with C or better
MUE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		

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MUE	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUE	310	Music in Early Childhood Education	Identifying and understanding musical needs of young children. Methods and materials for program development for classroom teachers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	311	Music for Classroom Teacher	Development of the classroom music program in the elementary school. No previous music experience or course work required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	313	Elementary Music Methods	Methods of instruction, planning, and presentation of appropriate contents in music. For music educators and music therapists.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisite: Music student
MUE	315	General Music in Secondary Schools	Curriculum, student characteristics, and teaching strategies for general music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student
MUE	317	Educational Methods for Violin and Viola	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	318	Educational Methods for Cello and String Bass	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	327	Educational Methods for Trumpet and Horn	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	328	Educational Methods for Trombone, Euphonium, and Tuba	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	335	Educational Methods for Guitar	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	336	Educational Methods for Percussion	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Education student
MUE	337	Educational Methods for Flute, Clarinet, and Saxophone	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	338	Educational Methods for Double Reed Instruments	Teaching and playing skills for music teachers. 3 hours per week.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	361	Music Therapy Theory and Practice in Psychopathology	Influence of music on behavior; principles and practices of music therapy and psychiatric clients.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	362	Music Therapy Techniques	Organization, administration, and use of music in rehabilitation with various client populations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Prerequisites: Must be a Music Therapy student; must have completed MUE361 with a C or greater or be currently enrolled
MUE	381	Music Therapy Research	Statistics and research design appropriate for investigations in music therapy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	Pre-requisite: Music Therapy student
MUE	384	Therapy Preclinical I	Paired students provide music therapy for small groups at a community agency for mentally retarded, geriatric, or physically disabled clients for a minimum of 10 clock hours.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	385	Therapy Preclinical II	Individual placement in ASU Music Therapy Clinic.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	386	Therapy Preclinical III	See MUE 385.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	387	Therapy Preclinical IV	Individual clinical work in a community mental health facility.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	388	Therapy Preclinical V	See MUE 387.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	389	Repertoire for Music Therapy	Music skills repertoire for music therapy, including units on brass, strings, woodwinds, electronic instruments, computer music, and improvisation techniques.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Prerequisite: Must be a Music Therapy student; must have completed MUE211 with a C or greater or be currently enrolled
MUE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisite: Music Therapy student
MUE	441	Psychology of Music	Psychological and physiological aspects of music emphasizing musical behavior, function, perception, and learning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	475	Group Process and Music Therapy	Principles of group process, verbal counseling, professional writing, as related to music therapy practice.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-3		Prerequisites: Must be a Music Therapy student; must have completed MUE362 with a C or greater or be currently enrolled
MUE	476	Internship in Music Therapy	Full-time, 6-month, off-campus residency in an approved clinical institution.	N	PRA	N	Z1	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 211 with C or better
MUE	480	Choral Methods	Methods of instruction, organization, and presentation of appropriate content in choral music classes.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	481	Instrumental Practicum/Methods	Instrumental music as a means of developing music skills, understandings, and attitudes in elementary and secondary school students.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	482	Instrumental Practicum/Methods	See MUE 481.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	485	String Practicum/Methods	For students preparing to administer a string program and teach strings at the elementary level.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MUE	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MUE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		

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MUE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MUE	548	Introduction to Research in Music Education	Survey of research methods and literature in music education. Focuses on interpretation and evaluation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	549	Foundations of Music Education	A treatment of historical perspectives, philosophy-aesthetics identified with music education, and learning theories applied to music teaching/learning. Basic research and writing skills appropriate to graduate studies in music education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	550	Studies in Music Curricula	Scope and sequence of musical experiences. Develops criteria for the evaluation of music curricula.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	551	Advanced Studies in Elementary School Music	For experienced teachers; organization and content of K-6 general music classes. Emphasizes teaching music reading and ear training to young children.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	552	Advanced Studies in Secondary General Music	Organization and content of school music classes that are not performance oriented.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	560	Jazz Pedagogy	Study of pedagogy, repertoire, and technique of instruction in jazz styles, ensemble techniques, and performance practice for school ensembles.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	562	Jazz Rehearsal Techniques	Conducting and rehearsal techniques for school jazz ensembles.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	564	Instrumental Music, Advanced Rehearsal Techniques	In-depth analysis of instrumental techniques in preparation for a thorough discussion of band tuning problems and solutions. Discussion of productive conducting and rehearsal techniques for school music teachers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	566	Instrumental Literature and Pedagogy for Schools	Provides an in-depth examination of ensemble music and teaching techniques to instrumental music teachers.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	568	Choral Music, Advanced Rehearsal Techniques	Musical and vocal techniques necessary for presentation of choral literature. Analysis and experimentation with psychological, acoustical, and other problems of rehearsal and performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	570	Choral Literature for Schools	Comprehensive study and analysis of choral music for the high school with special emphasis on octavo literature.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	571	Music Therapy Seminar I: Supervision and Administration	Covers health care administrative skills pertinent to music therapy practice, including budgeting, resource allocation, and staff supervision.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	572	Music Therapy Seminar II with Lab: Advanced Practice in Music	Deepens and broadens knowledge and skills in music therapy clinical practice.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	573	Music Therapy Seminar III with Lab: Music Therapy Theory and Philosophy	Explores current theory in music therapy and develops the theoretical basis for the profession.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music Therapy MM student
MUE	574	Music Therapy Music Skills I: Improvisation	Teaches new forms of musical improvisation pertinent to music therapy practice, broadening and deepening existing skills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Therapy MM student
MUE	575	Music Therapy Music Skills II: Accompaniment	Teaches new forms of musical accompaniment pertinent to music therapy practice, broadening and deepening existing skills.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Therapy MM student
MUE	579	Psychology of Music	Nature of musicality and its evaluation. Review of recent research.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	585	Vocal Acoustics and Production	In-depth approach to the psychological/physiological workings of the vocal mechanism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	586	Music Therapy Graduate Clinical Project	Develops clinical- and research-based music therapy skills in selected cognate area.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisites:Completed MUE 571, 572, 574, and 575, or currently enrolled.
MUE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		

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MUE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	744	Higher Education Instruction	Philosophical and psychological principles of college/university teaching. Patterns of music teacher education and a projection of course outlines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	755	Historical Research in Music Education	Knowledge and insights related to conducting historical research in music education. Includes development of a mini-proposal for a dissertation on the history of music education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUP	100	Concert Attendance	6 semesters required for all music majors. A total of 4 convocations and 6 approved recitals required each semester.	N	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	0.		
MUP	111	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	117	Applied Jazz Improvisation	Principles, methods, and theory of jazz performance and pedagogy. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	121	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition

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MUP	127	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisites: Music students who have passed audition
MUP	131	Class Piano	4-semester sequence (with MUP 132, 231, and 232) designed for those with little or no piano experience. Emphasizes keyboard technique, sight reading, simple accompaniments, and improvisation. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	132	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Prerequisites: Must be a Music Therapy student; must have completed MUP131 with a C or greater or be currently enrolled
MUP	133	Class Voice	4-semester sequence (with MUP 134, 233, and 234) open to all students. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	133	Class Voice	4-semester sequence (with MUP 134, 233, and 234) open to all students. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	134	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	141	Jazz Fundamentals	Principles, methods, and theory of jazz performance and pedagogy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		Pre-requisites: Music students who have passed audition
MUP	209	Beginning Choral Conducting	Essentials of choral conducting techniques. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	210	Beginning Instrumental Conducting	Essentials of instrumental conducting techniques. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	217	Applied Jazz Improvisation	Emphasizes basic jazz literature, chord symbol reading, melodic patterns and concepts, ear training, analysis of improvised solos, and pedagogical issues.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: MUP 117 with C or better
MUP	231	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student; MUP132 with C or better
MUP	232	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student; MUP231 with C or better
MUP	233	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	234	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	235	Jazz Piano	2-semester sequence (with MUP 236) designed for jazz keyboard experience. Emphasizes chord symbol reading, simple improvisation, and voicing. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	236	Jazz Piano	See MUP 235.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	237	Fretboard Harmony	Scales, chords, harmony, basic improvisation for the guitar. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	250	Diction for Singers	Use of phonetics in the study of song and opera literature. Language emphasis differs each semester. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music students who have passed audition
MUP	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	301	Advanced Class Piano	Required for the choral-general concentration of the Music Education major. Open to other music majors who have completed MUP 232. Emphasizes accompaniments, ensemble playing, score reading, advanced harmonizations, repertoire, technique, and improvisation. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student; MUP 232 with C or better
MUP	302	Advanced Class Piano	Required for the choral-general concentration of the Music Education major. Open to other music majors who have completed MUP 301. A sequential continuation of MUP 301 skills that include both group and studio instruction. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student; MUP301 with C or better
MUP	311	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	317	Applied Jazz Improvisation	Emphasizes listening, analysis, and performance of advanced jazz literature and composition in contemporary styles. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	319	Recording Studio Techniques	Study of both analog and digital recording methods. Includes lab time on recording console and tape machines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	321	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition

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MUP	327	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		Pre-requisites: Music students who have passed audition
MUP	337	Studio Instruction: Collaborative Piano	Repertoire to be selected from vocal and instrumental literature. 1 hour lesson per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	339	Choral Conducting	Elements of choral conducting technique and interpretation. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	340	Instrumental Conducting	Fundamentals of score reading and interpretation of instrumental music. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	344	Chamber Orchestra	Important masterpieces from all periods of music are performed throughout the year.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	345	Symphony Orchestra	Over a 4-year period, the student is introduced to the masterpieces of symphony orchestra literature. 3 times per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	346	Sinfonietta	Symphonic orchestra that presents approximately six concerts annually, performing masterpieces of the classical repertoire. 3 times per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	350	Choral Union	Open to all students in the university and to interested singers in the community by audition. Preparation and performance of the larger choral works. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	352	Chamber Singers	Important masterpieces from all periods of music are performed. May be repeated for credit.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	353	Symphonic Chorale	4 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	355	Men's Chorus	Rehearsal and performance of music for mixed voices. 3 hours per week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	357	Women's Chorus	2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	361	Marching and Concert Bands	Staging of formations and drills for football games and other events (fall); masterpieces of symphonic band literature (spring). Meets daily.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	362	Wind Ensemble	Rehearsal and performance of literature for wind ensemble. 2 hours per week in fall, 4 hours in spring. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	363	Chamber Winds	Rehearsal and performance of advanced literature for chamber winds. 2 hours per week. Performing ensemble. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	370	Music Theatre: Techniques	Exercises and improvisations for the singer/actor emphasizing body awareness, basic music theater performance skills, and freedom of the vocal and breath mechanisms. Section 1 (Movement for Singers); Section 2 (Expression); Section 3 (Interpretation); Section 4 (Advanced Expression); Section 5 (Advanced Interpretation). Sections 2 through 5 must be taken in sequence. Each section: 3 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	371	Music Theatre: Workshops	Development of specific skills for musical-dramatic interpretation. Section 1 (Aria Preparation); Section 2 (Broadway I); Section 3 (Broadway II).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	372	Music Theatre: Orchestras	Participation in Lyric Opera Theatre productions. Section 1 (Orchestra); Section 2 (Chamber Orchestra); Section 3 (Chamber Ensemble). May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	373	Music Theatre: Performance	Participation in Lyric Opera Theatre productions. Section 1 (Principal Roles); Section 2 (Chorus). May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	374	Music Theatre: Production	Participation in Lyric Opera Theatre productions. Section 1 (Vocal Performance); Section 2 (Technical Music Theatre); Section 3 (Problems in Production) to be taken concurrently with MUP 373, Section 2.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	376	New Music Ensemble	Rehearsal and performance of music written in the last 20 years.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	377	Brass Choir	Specializing in public performance of music written for brass instruments. 2 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	379	Chamber Music Ensembles	Brass, guitar, keyboard, mixed, percussion, string, vocal, and woodwind ensembles. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	385	Percussion Ensemble	Rehearsal and performance of standard and original repertoire for the percussion ensemble and related instruments. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	386	Jazz Band	Rehearsal and performance of new, traditional, and Latin literature for jazz bands. 4 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	387	Ethnomusicology Ensembles	Performance learning experience for the music of various cultures of the world.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	388	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUP	440	Keyboard Harmony	Performance-oriented class emphasizing chord progressions, harmonization, figured bass realization, stylistic improvisation, transposition, open score reading, and sight reading.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUP	451	Repertoire	Literature available for performance in all performing media.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	453	Song Literature	Early Italian, English, German, and French art song.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	454	Song Literature	American, Russian, Spanish, Scandinavian, and contemporary song.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	481	Performance Pedagogy and Materials	Principles and methods of performance techniques for each performance field. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	482	Piano Pedagogy	Continuation of MUP 481 (Piano). Problems and techniques of teaching intermediate to advanced piano students.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Music students who have passed audition
MUP	487	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week. May be repeated for credit. May not be taken for audit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Music students who have passed audition
MUP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music students who have passed audition
MUP	495	Performance	For candidates of a BM degree in which 1/2 recital is a requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	0.		Pre-requisites: Music students who have passed audition
MUP	496	Performance	For candidates of a BM degree in which a full recital is a requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	0.		Pre-requisites: Music students who have passed audition
MUP	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		Pre-requisites: Music students who have passed audition
MUP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		Pre-requisites: Music students who have passed audition
MUP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	507	Group Piano Practicum	Curricula, materials, and teaching techniques for group teaching at the university and community college levels. Observation/supervised teaching in group piano.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	508	Studio Observation	Weekly observation of studio teaching by various piano faculty. Paper as final requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	509	Jazz Keyboard Harmony	Emphasizes jazz chords and chord progressions, harmonization, voicing, and analysis of transcriptions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	510	Jazz Keyboard Harmony	Continuation of MUP 509.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	511	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		
MUP	517	Advanced Improvisation	Improvisation techniques within the context of advanced jazz literature. Must be taken in sequence with MUP 518.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	518	Advanced Improvisation	Continuation of MUP 517.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	521	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	527	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour per week. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
MUP	540	Advanced Conducting	Score preparation and conducting techniques for instrumental music. Concentration on study of historical styles. Required of DMA students in Instrumental Music.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	541	The Art Song	Seminar on solo song from its beginning to the present day.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	544	Chamber Orchestra	Important masterpieces from all periods of music are performed throughout the year. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	545	Symphony Orchestra	Masterpieces of symphony orchestra literature. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		

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MUP	546	Sinfonietta	Symphonic orchestra that presents approximately six concerts annually, performing masterpieces of the classical repertoire. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	550	Choral Union	Open to all students in the university and to interested singers in the community by audition. Preparation and performance of the larger choral works. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	551	Repertoire	Literature available for performance in all performing media. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	552	Chamber Singers	Important masterpieces from all periods of music are performed. May be repeated for credit for a total of 8 hours.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	553	Symphonic Chorale	4 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	555	Men's Chorus	Rehearsal and performance of music for mixed voices. 3 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	557	Women's Chorus	2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	561	Marching and Concert Bands	Staging of formations and drills for football games and other events (fall); masterpieces of symphonic band literature (spring). Meets MWF. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	562	Wind Ensemble	Rehearsal and performance of literature for wind ensemble. 4 hours per week. May be repeated for credit. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	563	Chamber Winds	Rehearsal and performance of advanced literature for chamber winds. 4 hours per week. May be repeated for credit. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	570	Music Theatre: Techniques	Exercises and improvisations for the singing actor emphasizing body awareness, isolations, and freedom of the vocal and breath mechanisms. Section 1 (Interpretation); Section 2 (Expression); Section 3 (Movement for Singers). Each Section: 3 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	571	Music Theatre: Workshops	Development of specific skills for the musical-dramatic interpretation. Section 1 (Role Preparation); Section 2 (Styles); Section 3 (Opera Scenes); Section 4 (Musical Comedy); Section 5 (Revue Ensembles).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	572	Music Theatre: Orchestras	Participation in Lyric Opera Theatre productions. Section 1 (Orchestra); Section 2 (Chamber Orchestra); Section 3 (Chamber Ensemble). May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	573	Music Theatre: Performance	Participation in Lyric Opera Theatre productions. Section 1 (Principal Roles); Section 2 (Chorus).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	574	Music Theatre: Production	Participation in Lyric Opera Theatre productions. Section 1 (Vocal Performance); Section 2 (Technical Music Theatre); Section 3 (Problems in Production) to be taken concurrently with MUP 573, Section 2.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	576	New Music Ensemble	Rehearsal and performance of music written in the last 20 years. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	579	Chamber Music Ensembles	String, brass, woodwind, percussion, keyboard, vocal, and mixed ensembles. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	581	Performance Pedagogy and Materials	Principles and methods of performance techniques for each performance field. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	585	Percussion Ensemble	Rehearsal and performance of standard and original repertoire for the percussion ensemble and related instruments. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	586	Jazz Band	Rehearsal and performance of new, traditional, and Latin literature for jazz bands. 4 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	587	Ethnomusicology Ensembles	Performance learning experience for the music of various cultures of the world. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	588	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	596	Solo Performance	May be full recital, major operatic role, solo performance with orchestra, ensemble, or lecture recital.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	597	Solo Performance	See MUP 596.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUP	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	671	Choral Repertoire	Examines large choral/orchestral works to determine their musical and textual characteristics from a conductor's point of view.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	727	Studio Instruction	Minimum contact of 1 hour per week. May be repeated for credit. Conducting students register for 2 semester hours; all other students register for 4 semester hours. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		
MUP	751	Seminar in Piano Literature	In-depth study of selected topics related to the standard piano literature. Requires research paper, bibliography, class presentation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		

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MUP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	796	Solo Performance	May be repeated for credit.	N	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUS	340	Survey of Music History	Major periods, composers, and compositions in the history of music.	N	LEC	N	OPT	Herberger College of the Arts	School of Music	3.	HU & H	
MUS	100	Fundamentals of Music Notation	Provides nonmusic majors with sufficient symbol literacy to begin work in the field of musical learning. Credit not applicable toward any music degree.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUS	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C	
MUS	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C	
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	355	Survey of American Music	Growth and development of American music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	
MUS	355	Survey of American Music	Growth and development of American music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	
MUS	356	Survey of Musical Theatre	Music's place in Broadway musicals, viewed in terms of historical importance, cultural identity, and relative function. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	410	History of Women in Music	Surveys musical achievements of women as well as the historical contexts that shaped and defined their artistic development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	
MUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MUS	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MUS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		

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MUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUS	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUS	340-W	Listening to Music	Major periods, composers, and compositions in the history of music.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	349	Music in America	Current styles of American music including jazz, popular, and folk music.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	356	Survey of Musical Theatre	Music's place in Broadway musicals, viewed in terms of historical importance, cultural identity, and relative function. Fee (hybrid/Internet).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	

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MUS	357	Aesthetic Perception in Music Performance	2 hours per week. May be repeated for credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
MUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
MUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	356	Survey of Musical Theatre	Music's place in Broadway musicals, viewed in terms of historical importance, cultural identity, and relative function. Fee (hybrid/Internet).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
NAN	505	Nanoscience and Society	Integrates nanoscience and nanotechnology with potential societal issues involved in the students' NAN 593 Applied Projects. Coordinated by the faculty and research staff at the Center for Nanotechnology in Society.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
NAN	506	Innovation and IP Management	Intellectual Property (IP) Management in the context of innovation (research, regulations, manufacture, access to markets, and trade) with emphasis on strategies, public-private interface, licensing, and technology transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
NAN	511	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311; PHY 315; Credit is allowed for only MSE 526, NAN 511, PHY 511, or PHY 481
NAN	512	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	527	Electroanalytical Chemistry	Theoretical and practical considerations for modern electroanalytical chemistry, including voltammetry, potentiometry, and microelectrode analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.		Pre-requisites: CHM 346 with C or better. Credit is allowed for only CHM 527 or NAN 527
NAN	542	Topics in Biophysics	Overview of modern biology, length scales: emphasizes molecular and cellular biology. Nonequilibrium systems: compare and contrast stochastic processes in biological and physical systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only MSE 552, NAN 552, PHY552 or SEM 552
NAN	564	Bionanotechnology	The use of biomolecules, bioelectronics, and biomedicine for applications in nanotechnology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	571	Quantum Physics	Review modern physics, chemistry, math. Differential equation, operator, matrix formulations. Free particle, bound state problems. Examples across physics and astronomy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only NAN 571 or PHY 571
NAN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		

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NAN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
NAN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
NLM	160	Voluntary Action and Community Leadership	Introduction to voluntary behavior in American society for students interested in volunteerism, community service, and civic engagement.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
NLM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	210	Community Services and Professions	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: Nonprofit Leadership and Mngmnt student with NLM 160 (or NLM 191) with C or better if completed OR Recreation (nonprofit emphasis) student with REC 120 with C or better if completed
NLM	220	Introduction to Nonprofit Organizations	Introduces the nonprofit sector and its role in developing the cultural, economic, and social impact in U.S. society.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	300	Fund Raising and Resource Development	Theory and practice of philanthropy, resource acquisition methods through ethical fund raising, and earned income approaches for nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: NLM 160 (or NLM 191) with C or better if completed
NLM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-or Co-requisite: NLM 160 (or NLM 191) with C or better if completed
NLM	310	Volunteer Management	Administration of volunteer service programs. Studies and analyzes the volunteer personnel process.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	320	Professional Development Seminar	Professional seminar featuring nonprofit executives; variable topics on leadership and management concerns. Forum for exchange between students and professionals.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		
NLM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: NLM 410, PRM 304, REC 330 or TDM 372 with a C or better or currently enrolled
NLM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: Nonprofit Leadership & Mgmt, or Recreation(Mgt) students. Received a C or better in NLM 410 or currently enrolled
NLM	410	Social Entrepreneurship	Introduces social entrepreneurship, including how ideas are formulated, constructed, and implemented; experiential learning in developing a social enterprise plan. Credit is allowed for only NLM 410 or 562.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites:MAT 142 or higher;NLM or Recreation Management (nonprofit emphasis) major;2.50 ASU GPA;45 minimum hours;grade of C or better in ENG 102, NLM 210, & 220
NLM	420	American Humanics Institute	National Management Institute for preparation of nonprofit professionals. Requires out-of-state conference.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-2		
NLM	430	Managing Nonprofit Organizations	Analyzes administrative structures, decision making, and program delivery within nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must be Academic Level Senior or higher; Earned grade of C or better in NLM 220 or REC 220 or currently enrolled.
NLM	435	Service Learning for Community Development	Applies youth and adult development theories through community service immersion in collaboration with local nonprofit partners.	N	DIS	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

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NLM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Pre-requisites: Earned grade of C or better in NLM 402, 430, PRM 401, 402 or TDM 401, 402 in; Earned grade of C or better in TDM403, NLM403 or PRM403 or have completed REC 350 or REC 440 with C or better. Academic level senior
NLM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
NLM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
NLM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
NLM	501	Program Evaluation and Information Management	Develops skills in several areas, including evaluation, needs assessment, information and data collection, data management and analysis, computer applications, and report writing.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	510	Foundations of Nonprofit Management	Explores the history and role of the nonprofit sector in American society; contemporary issues and delivery systems. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	520	Financial Management in Nonprofit Organizations	Reviews funding structures utilized by nonprofit organizations; financial tools used by managers; fund raising practices and tools. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	540	Volunteer and Human Resources in Nonprofit Organizations	Managing the volunteer and paid staff human resources in nonprofit organizations; practices and theories. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	550	Philanthropy: Theory and Practice	Provides overview of selected fundraising topics and insight into both the theory and practice of this area.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	560	Leadership and Ethics in the Nonprofit Sector	Examines leadership and ethical questions encountered by managers and leaders in the nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	562	Social Entrepreneurship	Introduces social entrepreneurship, including how ideas are formulated, constructed, and implemented; experiential learning in developing a social enterprise plan. Credit is allowed for only NLM 562 or 410.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	584	Internship		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
NLM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		

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NLM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
NLM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-12		
NLM	610	Executive Leadership and Governance	Examines the multiplicity of roles for executives and board of directors in providing strategic leadership for nonprofits.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	620	Critical Issues Facing Nonprofits	Improves understanding of trends emerging within nonprofits such as leadership, resource development, and social responsibility.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Prerequisite: Master of Nonprofit Studies major
NTR	100	Introductory Nutrition	Basic concepts of human nutrition. Recent controversies in nutrition and how food choices affect personal health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	142	Applied Food Principles	Applied scientific principles of food preparation and production.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nutrition (Food/Nutrtn Mngt), Nutrition (Human Nutrition), Nutrition (Dietetics), or Nutrition (Nutrition Comm) student
NTR	150	Introduction to the Professions in Nutrition and Dietetics	Introduces the professions of nutrition and dietetics; their history, practice, and future; credentials, ethics, and standards of practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
NTR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	241	Human Nutrition	Principles of human nutrition. Emphasizes nutrient metabolism and the relationships between diet and disease.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: CHM 101 or CHM 113 with D or better
NTR	300	Computer Applications in Nutrition	Introduces nutrition and food software, including dietary assessment and analysis, food inventory and control, and telecommunications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	CS	Pre-requisites: Must have completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	320	History of Human Nutrition	Origins of human nutrition; evolving theories of nutrition and disease; historical role of nutrition in social, military, cultural events.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NTR 100 or 241
NTR	340	Applications in Human Nutrition	Applies nutrient metabolism through case studies and product evaluations; special topics in human nutrition.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: BIO 201; NTR 241
NTR	341	Introduction to Planning Therapeutic Diets	Cultural, health, and economic aspects of planning therapeutic diets. Assessments of food and diet composition. Reviews common therapeutic diets. Credit is allowed for only NTR 341 or 345. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	343	Food Service Purchasing	Introduces purchasing systems, bid processes, receiving and storage procedures, and regulatory agencies involved in the food service industry.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 142 with D or better
NTR	344	Nutrition Services Management	Organization, administration, and management of food and nutrition services in hospitals and other institutions.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: FON 100, FON 241, NTR 100 or NTR 241
NTR	345	Development of Healthy Cuisines	Principles and applications of nutrition and medical nutrition therapy; development of healthy cuisines in health and disease states. Credit is allowed for only NTR 345 or 341.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or less than in NTR 341 or completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	346	Sports Nutrition	Nutritional needs of recreational and elite athletes; energy balance; nutrient metabolism during activity; fluid-electrolyte regulation; evaluation of ergogenic supplements.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or better in FON 241 or NTR 241 or be currently enrolled AND earned D or better or currently enrolled in BIO 202
NTR	348	Cultural Aspects of Food	Origins, development, and diversity of food preferences and dietary habits; food patterns and attitudes of global populations and U.S. immigrants.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB & C & G	Pre-requisites: NTR 100 or 241
NTR	350	Nutrition Counseling	Counseling techniques in nutrition; interpersonal and communication skills in clinical and community sites; nutrition education for individuals and populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisites: NTR 341 with C or better or NTR 345
NTR	351	Nutrition and Health Communications	Approaches of nutrition and health communications; development of nutrition and health communication materials for selected target audiences.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NTR 100 or 241
NTR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	400	Preprofessional Preparation in Dietetics	Applies academic knowledge in field practicum; aspects of professional development.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed NTR 440, NTR 441, or NTR 444 with D or better or be currently enrolled AND earned D or better in NTR 341 or be currently enrolled.
NTR	401	Professional Practice in Food Service Management	Applies academic knowledge in food service management to field practicum; develops practical skills in planning, purchasing, production, management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or better in NTR 343 or NTR 445 or be currently enrolled
NTR	440	Advanced Human Nutrition I	Metabolic reactions and interrelationships of vitamins, minerals, and water.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: BIO 202 with C or better; NTR 241 with C or better; NTR 340 with C or better; Credit is allowed for only NTR 440 or 540

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NTR	441	Advanced Human Nutrition II	Metabolic reactions and interrelationships of carbohydrate, lipid, and protein.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: You may not enroll in NTR 441, if you have credit for NTR 541; BIO 202 with D or better; BCH 361 with C or better; NTR 241 with D or better
NTR	442	Experimental Foods	Food product development techniques, food evaluation and testing, and investigation of current research into food composition. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Earned D or better in NTR 142 or FON 142 or currently enrolled in NTR 142 AND earned D or better in CHM 231 or CHM 331 or currently enrolled.
NTR	444	Medical Nutrition Therapy	Principles of medical nutrition therapy for prevention and treatment of disease and promotion of health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 341 or FON 341 with C or better OR enrolled in NTR 341; BIO 202; Credit is allowed for only NTR 444 or 544
NTR	445	Management of Food Service Systems	Standardized methods of quantity food preparation, operation of institutional equipment, institutional menu planning, quantity food experiences. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 100 or NTR 241 with D or better; NTR 142 with D or better
NTR	446	Human Nutrition Assessment Lecture/Laboratory	Clinical and biochemical evaluation of nutritional status. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned C or better in BCH 361 or currently enrolled AND earned C or better or currently enrolled in NTR 440 or NTR 441
NTR	448	Community Nutrition	Food-related behaviors; organization and delivery of nutrition services; program design, implementation, and evaluation strategies; nutrition assessment of populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisite: NTR 100 or NTR 241 with D or better
NTR	450	Nutrition in the Life Cycle I	Emphasizes nutritional needs and problems during pregnancy, lactation, infancy, and childhood.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisite: NTR 100 or NTR 241; Credit is allowed for only NTR 450 or 550
NTR	451	Nutrition in the Life Cycle II	Nutritional needs and problems of adults, particularly the elderly.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 100 or 241
NTR	492	Honors Directed Study		N	THE	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NTR	493	Honors Thesis		N	THE	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
NTR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
NTR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	501	Research Methods in Nutrition II	Reviews survey, focus group, and epidemiologic research; develops questionnaires; analyzes large data sets.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	521	Nutrition and Immunology	Critical review of current research on nutrient metabolism, immune function.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	523	Vegetarian Nutrition	Health benefits, nutritional characteristics, potential risks of vegetarian diets.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	525	Complementary Nutrition	Critical review of functional foods, phytochemicals, nutrient supplements in health promotion.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	527	Energy Balance and Weight Management	Reviews energy regulation, eating disorders, obesity, weight control methodologies.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	529	Pediatric Nutrition	Critical review of pediatric disease states and current nutritional therapies.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	535	Nutrigenomics	Provides a sound foundation for promoting personalized nutrition by integrating and applying molecular nutrition and nutritional biochemistry to clinical settings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: BCH 361; BCH 367; NTR 440 or 441
NTR	537	Evidenced-Based Nutrition	Reviews current evidence of the role of diet on disease prevention, development, and management.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	540	Advanced Micronutrient Metabolism	Metabolism of vitamins and minerals, primarily as applied to humans, with research literature emphasized.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 440 or 540
NTR	541	Advanced Macronutrient Metabolism	Metabolism of protein, fat, and carbohydrate, primarily as applied to humans, with research literature emphasized.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 441 or 541
NTR	544	Therapeutic Nutrition	Current theories of the nutritional prevention or treatment of various diseases.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 444 or 544
NTR	545	Management of Institutional Food Service Systems	Standardizes methods of quantity food preparation, operation of institutional equipment, institutional menu planning, quantity food experiences. May require field trips. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	546	Assessment Techniques in Nutrition	Clinical and biochemical evaluation of nutritional status. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	548	Nutrition Program Development	Planning, development, implementation, and evaluation of community nutrition programs, including the process of grant applications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	550	Advanced Maternal and Child Nutrition	In-depth review of metabolic characteristics and nutritional needs of the pregnant woman, lactating woman, infant, and child.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Students who have credit for NTR 450, may not enroll in NTR 550
NTR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
NTR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
NTR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
NUR	310	Nursing Concepts	Theoretical concepts related to health integrity focusing on the individual client across the life span. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Nursing undergraduate student; Co-requisites: NUR 311, NUR 394: Psychomotor Skills for Professional Nursing Practice and NUR 320 (or NUR 484: Introduction to Nursing Practice I)
NUR	311	Pharmacology	Applications of pharmacologic interventions.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing student; Co-requisites: NUR 310, NUR 394: Psychomotor Skills for Professional Nursing Practice and NUR 320 (or NUR 484: Introduction to Nursing Practice I)
NUR	314	Health Assessment for Registered Nurses	Introductory knowledge and skills for systematic physical, psychosocial, and developmental nursing assessment over the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	315	Methods and Critical Appraisal for Evidence-Based Practice	Scientific and clinical inquiry, research methodology, and critical appraisal in the synthesis of research findings for application in evidence-based nursing practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: NUR 310, NUR 311, NUR 394: Psychomotor Skills for Prof Nursing Practice) and NUR 330 with C or better; NUR 320 (or NUR 484: Intro to Nursing Practice I) with Y
NUR	320	Nursing Practice	Integrates knowledge and attitudes from theory into the nursing care of adults in a variety of health care settings. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Enrollment in upper division nursing program; Co-requisites: NUR 310, NUR 311 and NUR 394: Psychomotor Skills for Professional Nursing Practice
NUR	323	Nursing Practice Adult Health	Applies nursing process with selected alterations in health with focus on adult populations in the acute care setting. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Enrollment in upper division nursing program; NUR 310, 311, 394:Psychomotor Skills for Prof Nurs Pract with C or better; NUR 320 (or 484: Intro to Nurs Pract I) with grade of Y; Co-requisites: NUR 313 or 394:Nursing Concepts Adult Health
NUR	330	Professional Nurse Attributes	Professional nursing roles and responsibilities.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: Upper Division Nursing Program students
NUR	342	Theory II: Health Integrity and Alterations	Concepts related to selected alterations in health integrity with focus on individuals, families, and groups. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate Nursing student, NUR 381 with C or better
NUR	364	Professional Development II: Nursing Research for RNs	Introduces concepts and issues in nursing research. Emphasizes quantitative and qualitative research processes, examination of nursing research literature.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: Undergraduate nursing student.
NUR	391	Registered Nurse Mobility I: Professional Development	Historical, philosophical, and theoretical bases for professional nursing practice. Enhancement of critical inquiry skills through exploration of selected issues.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisties: Must be in Nursing
NUR	392	Registered Nurse Mobility II: Health and Wellness	Concepts of health integrity and community-based practice and professional nursing roles.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisties: Must be in Nursing
NUR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Upper Division Nursing Program students
NUR	413	Nursing for Complex Care	Advanced theoretical knowledge and interprofessional collaborative care required for the delivery of safe and competent care of the adult client experiencing acute and complex alterations in health. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Undergraduate nursing student; NUR 481 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
NUR	423	Nursing Practice: Complex Care and Leadership and Management	Applies advanced psychomotor skills, leadership and management principles, and interprofessional collaboration for clients experiencing health alterations across the lifespan in multiple health settings. Fee.	N	LAB	N	P/F	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate nursing student.
NUR	430	Professional Nurse Attributes: Leadership and Management	Applications of theories and concepts of organizations, management, and leadership with focus on nursing management and leadership in healthcare organizations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Undergraduate nursing student.
NUR	431	Professional Nurse Attributes Innovative Professional	Focuses on the process of transition to the professional nursing role, and the gathering, interpretation, and evaluation of evidence that serves as a basis for improving client outcomes and professional satisfaction.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: Undergraduate nursing student; NUR 481 with C or better
NUR	440	Theory III: Health Integrity and Alterations for RNs	Concepts related to health integrity and alterations with focus on individuals, families, groups, aggregates, and communities.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	6.		Pre-requisites: Undergraduate nursing student; must have completed NUR 392 with a grade of C or greater.
NUR	441	Theory III: Health Integrity and Alterations	Concepts related to health integrity and alterations with focus on individuals, families, groups, aggregates, and communities. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	6.		Pre-requisites: Undergraduate nursing student.
NUR	444	Theory IV: Health Integrity and Alterations for RNs	Advanced concepts related to health integrity and alterations in that integrity, with focus on selected client populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NUR 315, NUR 391, TWC 361 with C or better
NUR	445	Theory V: Leadership and Management for RNs	Selected theories and concepts of organizations, management, leadership with focus on selected client populations for experienced RNs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be an undergraduate nursing student.
NUR	460	Professional Development III: the Art of Nursing for RNs	Explores the aesthetic, ethical, and personal patterns of knowing in nursing for the practicing RN.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: Must be an undergraduate nursing student.
NUR	461	Professional Development III: the Art of Nursing	Explores the aesthetic, ethical, and personal patterns of knowing in nursing.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: NUR 342 and NUR 362 with a C or better; NUR 382 with Y
NUR	464	Professional Development IV for RNs	Capstone professional development course for the RN student.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Must be an undergraduate nursing student.
NUR	481	Nursing Practice III	Lab, clinical experiences. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	7.		Pre-requisites: NUR 313 (394:Nurs Conc for Adult Health), 314 (394:Nurs Conc for Psych/Mental Health), 315, 323 (484:NP Adult Health), 324 (484:NP Psych/Mental Health); Co-requisites: NUR 411 or NUR 498: Nurs Conc for Childbearing & Pediatric Clients
NUR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Upper Division Nursing Program students
NUR	492	Honors Directed Study		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NUR	493	Honors Thesis		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
NUR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Upper Division Nursing Program students
NUR	495	Community Health/Home Health Practice for RNs	Theoretical content related to community and home healthcare. Clinical practice with individual, family aggregates.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	496	Leadership and Management Practice for RNs	Capstone leadership and management experience for the RN student that utilizes patterns of knowing in nursing practice. fee	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate nursing student.
NUR	497	Honors Colloquium		Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NUR	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		Pre-requisites: Upper Division Nursing Program students
NUR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
NUR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Graduate Nursing student; NUR 551 with B or better
NUR	503	Adult Acute: Advanced Theory I	Focuses on theoretical, research, and advanced assessment skills required for advanced practice across the acute care continuum.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 503 and 564 with a grade of B or better or be currently enrolled.
NUR	508	Advanced Nursing Practicum I: Adult Acute Nursing	Required practicum for preparation for advanced practice across the acute care continuum. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must co-enroll in NUR 503
NUR	513	Advanced Practice Nursing Role III	Third of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Graduate Nursing student; NUR 512 with B or better
NUR	521	Psychiatric/Mental Health Nursing: Advanced Mental Health Assessment	Theories related to holistic health assessment for the promotion of physical/psychological health; develops skill in mental health assessments.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing student
NUR	526	Advanced Neonatal Physical Assessment	Develops assessment skills related to neonate/infant, including history-taking, physical, developmental, behavioral, cultural, and genetics assessment to provide comprehensive advanced practice neonatal nursing care. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Nursing MS student or Non-degree seeking Graduate student; Co-requisite: NUR 525

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NUR	527	Neonatal and Pediatric Pharmacology in Nursing Practice	Examines and discusses the rationale, action, and therapeutic effect for using each class of medications employed in neonatal and pediatric healthcare.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Be in:NUNURDTMS or NUPCNDTMS, or NUGRNONDGR; & completed NUR 525 w/ a grade of B or greater(or enrolled) or co-enrolled, & completed NUR 526 or NUR 558 w/a grade= B or greater or be enrolled in either, or co-enrolled
NUR	528	Advanced Developmental and Family-Centered Nursing Care	Provides the foundation for providing advanced nursing care of children that is developmentally supportive, family centered, and culturally competent. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites:Be in:NUNURDTMS or NUPCNDTMS, or NUGRNONDGR; & completed NUR 525 w/ a grade of B or greater(or enrolled) or co-enrolled, & completed NUR 526 or NUR 558 w/a grade= B or greater or be enrolled in either, or co-enrolled
NUR	538	Understanding & Applying Prin of Evidence-Based Care in Advanced Practice	Understanding how application of evidence-based practice principles assist advanced practice nurses and other healthcare professionals to provide best care.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	539	Generating Internal Evidence and Validating Application of Evidence through Outcomes Management	Assists advanced practice clinicians to provide best care through generating and validating application of evidence using outcomes management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	540	Teaching Evidence-Based Practice	Focuses on strategies that have been demonstrated as effective methods for teaching evidence-based practice in academic and clinical settings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
NUR	541	Application of Principles of Mentorship for Change toward Evidence-Based Practice	Assists advance practice nurses and other healthcare professionals to facilitate change toward evidence-based practice through mentorship.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	543	Disseminating Evidence to Advance Best Practice in Healthcare and Health Policy	Focuses on disseminating evidence to advance best practice with an emphasis on advancing EBP in health policy and the media.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	558	Advanced Pediatric Health Assessment	Expansion of basic health assessment skills and development of clinical problem-solving skills for advanced practice nurses. Includes assessments of infants, children, and adolescents. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS,or NUPCNDTMS,or NUGRNONDGR; & received a B or > in NUR 551,500,552,554,, or co-enrolled.
NUR	559	Advanced Health Assessment	Expansion of basic health assessment skills and development of clinical problem-solving skills for advanced practice nurses. Includes assessments of infants, children, adolescents, and adults. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS,or NUPCNDTMS,or NUGRNONDGR; & received a B or > in NUR 551,500,552,554, or be currently enrolled, or co-enrolled.
NUR	578	Gestalt Therapy I	Introduces theory and methodology of Gestalt therapy and its uses for mental health promotion and restoration.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	579	Gestalt Therapy II	Focuses on further development of Gestalt therapy and its application in working with various client populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NUR 578 with B or better
NUR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing student
NUR	581	Advanced Nursing Practicum I: Community Health Nursing	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be in Nursing MS or Nursing (Comm Health Adv Prac); AND co-enrolled in CHP 501 and completed NUR 500 with a grade of B or greater,.
NUR	582	Advanced Human Physiology	Analyzes major theories and concepts of human physiology. Explores interrelationship of physiology and health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-3		Pre-requisites: MS Nursing, AHN or non-degree Nursing student; NUR 500, 552 and 554 with B or better
NUR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites:Must be in Nursing MS or Nursing (Comm Health Adv Prac); NUR 500, 551, 552 and CHP 502 with B or better; NUR 581 or 587 with B or better; Co-requisite: NUR 510
NUR	587	Advanced Nursing Practicum II: Community Health Nursing	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing MS or Nursing (Comm Health Adv Prac); NUR 581 with B or better; Co-requisite: CHP 502
NUR	589	Research Utilization	Emphasizes the synthesis and application of research to an identified clinical nursing problem. Must be repeated for credit.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-2		
NUR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
NUR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Nursing Graduate student
NUR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Nursing Graduate student
NUR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	601	Professional Role Development in Nursing and Healthcare Innovation	Explores professional identity in nursing education, health policy, and research and how one's identity can influence individual, family, and community engagement in healthcare.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing & Healthcare Innovation PhD student
NUR	603	Social and Contextual Issues in Nursing and Healthcare	Analyzes nursing practice and the healthcare system for an identified population using social-ecological approaches.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	604	Philosophy of Science Perspectives in Nursing and Healthcare Innovation	Analyzes the history and philosophy of science as a basis for knowledge and academic scholarship in nursing and healthcare innovation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	605	Theories Related to Nursing and Healthcare Innovation	Examines theoretical perspectives and approaches guiding research in nursing and healthcare innovation across the lifespan. Includes the historical evaluation, social contextual factors, implicit assumptions, and bias that influence nursing and healthcare innovation knowledge generation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	608	Qualitative Research Design and Methods	Explores and critiques selected qualitative research approaches. Includes fieldwork exercises as an integral part of course expectations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	609	Quantitative Research Design and Methods	Examines multiple research approaches in clinical and health policy research from a quantitative perspective.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	610	EBP: Critical Appraisal/Synthesis-Evidence	Knowledge and skills in critical appraisal and synthesis of evidence to guide best practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	611	Collaborative Inquiry	Seminar and immersion experience designed to foster student participation in multidisciplinary research teams to address nursing and health problems.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	612	Advanced Analysis of Variance: Design and Analysis of Experiment	Introduces theory, methods, and practice of analysis of variance.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	613	Principles of Regression and Correlation	Introduces theory, methods, and practice of regression analysis.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	614	Design and Implementation of Theory-Based Interventions	Focuses on the knowledge related to advanced methods for intervention research. Examines methodological, ethical, and practical issues in the design and implementation of theory-based intervention studies.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	670	Curriculum Development in Academic and Practice Settings	Includes analyses of historical, philosophical, societal, environmental, cultural, technological, and educational factors of curriculum development in academic and practice settings.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: MS Nursing (Nursing Education) or Graduate Certificate in Nursing Education; Pre/Co-requisite: NUR671 with B or better
NUR	671	Teaching in Academic and Practice Settings	Analyzes theories, issues, and research related to teaching in nursing. Focuses on the process of teaching/learning.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program.
NUR	672	Design and Delivery of Mediated Instruction	Addresses instructional design issues, theory, and practices related to online and electronically mediated learning.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program; NUR 670
NUR	673	Producing and Evaluating Programs for Academic and Practice Settings	Critical examination of standards, regulatory environment, administrative systems, leadership requirements, technological infrastructure, human factors, future trends regarding mediated education planning, production, and evaluation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program; NUR 670
NUR	679	Biostatistics: Principles of Statistical Inference	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
NUR	681	Advanced Health Assessment of Older Adults Lab/Practicum	Skill-based course focused on advanced health assessment skills specific to older adults, including history-taking strategies, physical, functional, developmental, and psychosocial health assessment.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
NUR	686	Management of Common Health Problems in Geriatrics	Provides theoretical foundation for advanced geriatric healthcare focusing on the epidemiology of aging and the effects of senescence on cognition and organ systems. Emphasizes the core concepts of aging, including health management and end of life care. Uses theory building approaches for applying health management process and outcomes to clinical practice and policy.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	688	Management of Complex Diseases and Syndromes in Geriatric Population	Focuses on diagnosis and management of complex diseases and syndromes in the geriatric population.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
NUR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	692	Research		N	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
OMT	343	Occupational Safety and Ergonomics	Health and safety movement, accident theories and effects, OSHA standards and liability, safeguarding, hazards, workers' compensation, ergonomics, and safety.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	344	Industrial Organization	Industrial organization concepts. Topics relate to industrial relations, governmental regulations, organizational structure, labor relations, human factors, and current industrial practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	345	Public Sector Management	Management in government and public agencies. Includes mission, planning and organizing to provide services, human resource issues, conflict resolution, coordination.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	401	Statistics for Industry	Two-part online statistics with applications for the practitioner in industry. Includes data description, measures of central tendency and variability, probability, tests of hypotheses, regression analysis and analysis of categorical data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:MAT 117 with a grade of D or better, or currently enrolled
OMT	402	Legal Issues for Technologists	American legal system and impact on technology management issues: contracts, torts, intellectual property, white collar crime, antitrust, environmental, and employment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Minimum Junior standing
OMT	405	Forecasting and Evolution of Technology	History and evolutionary nature of selected technologies, issues in the management of emerging technologies, and methods of technological forecasting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Minimum Junior standing
OMT	430	Ethical Issues in Technology	Topics in social responsibility for industrial technology and engineering.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:School of Technology or Coll of Engr & Appl Sci Non-Degree plan or School of Technology BAS, BS, or MS Tech plan
OMT	440	Introduction to International Business	International business principles and operations, including partnerships, trade agreements, currency issues, international sales, and cultural differences between countries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	Prerequisites:Must have received a D or greater in IST346 or MGT301 or OMT440 (or be currently enrolled in IST346 or MGT301 or OMT440) OR you must be in an Engineering & Appl Sci or Sch of Tech Plan: NDegr,BAS,MS,MSTech
OMT	445	Industrial Internship	Work experience assignment in industry commensurate with student's program. Specialized instruction by industry with university supervision. Pass/fail.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-10		Prerequisites: Minimum 2.25 GPA AND Minimum Junior standing AND Technology & Innovation BAS or BS student
OMT	451	Industrial Distribution and Materials Management	Surveys topics in industrial distribution, including, but not limited to, materials handling, purchasing, receiving, warehousing, traffic, inventory control, and shipping.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Engr & Appl Sci or Sch of Tech Plans: Non Degree or BAS or MS or MSTech OR must have received a C or greater in TMC346 OR received a D or greater in IST346 or MGT301 (or be currently enrolled in TMC346 or IST346 or MGT301)
OMT	452	Industrial Human Resource Management	Concepts and practices of human resource management in a global industrial environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Engr & Appl Sci or Sch of Tech Plans: Non Degree or BAS or MS or MS Tech
OMT	453	Safety Management	Development and management of safety programs, education and training, and relationships within an organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Must have received a D or greater in ITC343 or ITM343 or OMT343
OMT	455	Industrial Marketing Concepts	Customer and sales strategies for industrial organizations, including current practice and future planning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Academic Level must be equal to or greater than a Junior AND must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346, OR be in a Sch of Tech Grad Plan
OMT	456	Introduction to Organized Labor	Introduces labor relations, unions, federations, collective bargaining, grievances, and labor legislation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346
OMT	461	Operations Management	Introduces supervisory principles as applied to production of goods and services.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: IMC 346 or IST 346 or MGT 301 or (TMC 346 AND APM 301) or STP 420, OR Engr & Tech & Innov: Non Degree or BAS or MS or MS Tech
OMT	480	Organizational Effectiveness	Human aspects of supervisory behavior in the industrial setting and how they influence efficiency, morale, and organizational practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346
OMT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
OMT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisites: Minimum Junior standing; Minimum 2.25 GPA

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OMT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		
OMT	502	Financial Management	Examines corporate financial and managerial accounting systems, budgeting, and financial policy, using microcomputers to analyze, forecast, and report information.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	503	Marketing Management	Modern methods and industrial case studies of planning, pricing, promoting, and distributing goods and services in the global marketplace.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	504	Law and Ethics for Technical Professionals	Analyzes legal and ethical framework for making managerial decisions in the corporate environment of engineering- and technology-related industries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	520	Strategic Management of Technology	Analyzes entrepreneurial dynamics and technology development, methods of research and development management, new technology implementation, and start-up organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	540	International Management	Practices and procedures for effective management of multinational business organizations, including partnerships, joint ownerships, and global subsidiaries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	548	Statistical Methods for Research	Multivariate statistical techniques to analyze research data. Uses statistical software and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	549	Research Techniques and Applications	Selection of research problems, analysis of literature, individual investigations, preparing reports, and proposal writing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	550	Industrial Training and Development	Training techniques and learning processes. Planning, developing, evaluating, and managing industrial and governmental programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	552	Global Management Philosophies	Analyzes and compares significant supervision philosophies developed in various industrial nations and their potential application in the United States.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	560	Managerial Decision Making	Analyzes common decision-making biases and techniques to overcome them. Uses both subjective quantitative decision tools and computerized decision aids.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	570	Advanced Project Management	Planning, organizing, coordinating, and controlling staff and project groups to accomplish the project objective.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: You may not enroll in OMT 570, if you have credit for TMC 470
OMT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
OMT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
OPM	301	Operations Management	Introduces the management of service and manufacturing conversion processes, with emphases on quality management and computer applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: Must be a Global Management student with conditional or professional status
OPM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
OPM	502	Management of Operations Technology	Design, control, and improvement of operations technology. Concepts and modeling tools required for strategic decisions in manufacturing and service operations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		
OPM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
PAF	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	300	Public Management and Administration	Examines the context and role of the public manager and the development of the field of public administration.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		

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PAF	340	Public Management and Policy	Develops conceptual, critical, and practical understanding of policy, the policy process, and policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	401	Statistics	Surveys statistical concepts and techniques with application to public administration. Does not count toward program of study. Satisfies statistics prerequisite requirement for PAF 501 and 502.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	410	Building Leadership Skills	Introduces understanding and developing leadership skills, including an examination of leadership theories and models from multidisciplinary and crosscultural points of view, an assessment of the student's leadership capabilities, and practical applications to improve individual leadership capabilities.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	SB	
PAF	411	Leadership and Change	The leader's role in bringing about significant organizational and societal change with special attention to group and organizational behavior dynamics, establishing a vision, mobilizing and empowering individuals and groups, and assessing outcomes of the change process in a variety of settings.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	SB	
PAF	420	Public Leadership	Examines key concepts, models, and strategies for leading public and nonprofit organizations, emphasizing self-knowledge, skills, and abilities for effective leadership.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	460	Public Service Ethics	Role, values, and issues of public management in democratic governance, citizen participation, power structures, and professional codes of conduct.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	492	Honors Directed Study		Y	LEC	Y	CNV	College of Public Programs	School of Public Affairs	1-3		
PAF	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Public Affairs	1-6	L	Pre-requisites: Must be an Honors student
PAF	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-3		
PAF	501	Public Service Research I	Philosophy, scope, and methods; public service research design, values, and ethics.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Must have earned B or better or currently enrolled in PAF 401, POS 401, PSY 230 QBA 221, or SOC 390 AND course must be completed within 4 previous terms
PAF	502	Public Service Research II	Quantitative techniques including multivariate analysis, data analysis, decision making, and computer applications in public affairs.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 501 with C or better
PAF	503	Public Affairs	Development and context of American public administration and policy, role of administration in governance, and values and ethics in administration.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	504	Public Affairs Economics	Basics of public sector economics, microeconomic and macroeconomic concepts applied to public sector decisions and policies.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	505	Public Policy Analysis	Institutional and formal analysis of policy processes, decision making, and problem solving; values, ethics, and the uses of policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 504 with C or better
PAF	506	Public Budgeting and Finance	Legal, social, economic, political, institutional, and ethical foundations of governmental finance, budgets, and budgeting.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 504 completed with C or better or currently enrolled
PAF	507	Public Human Resource Management	Personnel systems, behavior and management of people in public organizations, collective behavior, unionism, conflict management, motivation, productivity, and ethics.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	508	Organization Behavior	Theory and application in the management of organizational behavior with emphasis on leadership and the public service.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	509	Public Affairs Capstone	Capstone application of core course knowledge, skills, and abilities required for public service.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: PAF 501, 502, 503, 504, 505, 506, 507 and 508 with C or better
PAF	520	Public Management	Management process in government and public agencies, with emphasis on the executive leadership within the public sector.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	522	Public Labor Relations	Rise of public unionism, managerial policy toward unionism, conflict resolution; impact of unionism on budgets, personnel policies, and public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	523	The City and County Manager	Manager's role and resources in the differing forms of administrative, legislative, and community sectors.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	525	Public Entrepreneurship	Explores entrepreneurship in the public sector from various angles, including small and large communities and nonprofits.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	529	Organization Change and Development	Explores the nature and management of change and development as a tool to achieve organizational goals; effecting planned change.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		

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PAF	530	Management of Urban Government	Administrative practices and behavior within the urban political administrative environment. Functional areas such as citizen participation, urban planning, urban transportation, and the conflicts between urban politics and administrative efficiency.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	531	Community Conflict Resolution	Interdisciplinary approach to understanding the dynamics of community conflict. Strategic considerations in policy design and advocacy; potential reaction to conflict. Relevant models and research findings generated by both case studies and comparative methods.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	534	Urban Infrastructure	Covers various types of infrastructure operated by local governments and the issues related to management of those various public assets.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	536	Urban Policy Making	Analyzes the opportunities and costs of influencing public policy and the roles of officials and bureaucracies in decision making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	540	Adv Policy Analysis	Emphasizes the structure of policy problems, forecasting policy alternatives, optimizing resources, and reducing uncertainty in policy making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 505 with C or better
PAF	541	Program Evaluation	Various methodologies available for the evaluation of public policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 501 with C or better
PAF	546	Environmental Policy and Management	Analyzes environmental policy and planning issues and principles related to the analysis and management of natural and urban/regional resources.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	547	Science, Technology and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Credit is allowed for only BIO 515, GLG 547, PAF 547 or SOS 516
PAF	548	Women/Politics/Public Policy	Explores how political philosophy, politics, and public policy affect and are affected by women.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	549	Diversity Issues and Public Policy	Examines public policy issues concerning or affecting women, black, Latino, Asian, and American Indian communities, as well as those groups' impact on the policy process.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	551	Computers in Administration	Experience in use of computer technology for public administration problem solving.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	562	Intergovernmental Relations	Evolution, growth, present status, and characteristics of the U.S. federal system of government. Federal-state relations, state-local relations, regionalism, councils of government, interstate cooperation, grants-in-aid, and revenue sharing.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	564	Political Economy	Classical and contemporary literature and historical development of governmental and economic arrangements, with special emphasis on the role of the state.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	570	Urban Economics and Public Finance	Examines microeconomics at the intermediate level, along with topics in urban microeconomics focusing on issues of urban finance and taxation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	571	Geographic Information Systems (GIS) and Analysis	Provides foundational information related to application of GIS technology to meet various needs within governmental operations, administration, and public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	572	Urban Demography	Focuses on basics of demographic analysis, including natality, migration, and mortality. Emphasizes use of demographic analysis for urban problem solving.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	573	Advanced Regression	Examines more advanced regression topics, such as limited dependent variable analysis, time-series analysis and forecasting techniques, and simultaneity.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 502 with C or better
PAF	574	Diversity, Ethics, and Leading Public Change	Focuses on leadership, ethics, and benefits and tensions of the multicultural city to develop leadership and multicultural competence.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	579	Public Policy Capstone	Integrative, client-based project course.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		L
PAF	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Public Affairs	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PAF	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		Pre-requisite: Doctoral student
PAF	601	Seminar:Pol Analysis & Eval	Normative and conceptual issues of policy formulation, implementation, and evaluation; methods of policy analysis and evaluation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Must be enrolled in a PAF doctoral-level plan
PAF	602	Seminar: Foundations of Public Administration	Philosophy of science (including conduct of inquiry--epistemological and ontological foundations), historical development, and theoretical foundations of the field.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Doctoral PAF student
PAF	603	Seminar: Organization and Behavior in the Public Sector	Structure, organization, conduct, and performance of public sector institutions in the administration of public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Doctoral student
PAF	604	Foundations of Public Administration II	Philosophy of science (including research design issues and alternative approaches) and contemporary public administration, including political, social, technological, and economic institutions involved in governance, exposure to research being conducted within department.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: Doctoral PAF student; PAF 602
PAF	610	Advanced Qualitative Methods for Public Affairs Research	Explores a number of qualitative research approaches and methods, including ethnography, ethnomethodology, participant observation, interviews, focus groups, content analysis, discourse analysis, and some comparative/historical methods. Also exploreS the important theoretical and ethical issues that bear on these approaches.	N	SEM	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: PhD student
PAF	620	Public Administration Professional Development Workshop	Prepares doctoral students to become productive and effective public administration scholars, teachers, and researchers.	N	SEM	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: Doctoral PAF student
PAF	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-15		
PAF	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Public Affairs	1.		
PAF	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Public Affairs	1-15		
PE	123	Tumbling		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of Kinesiology	0.5		
PGM	100	PGA/PGM Introduction	Introduces the golf professional training program. Career enhancement, rules of golf, tournament operations, and playing professional development programs. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	110	Player Development I	Introductory instruction on golf game improvement to assist PGM students in preparation for Players Ability Test. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	111	Player Development II	Instruction to assist PGM students in preparation for Players Ability Test with emphasis on full swing mechanics and practice plan development. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	112	Player Development III	Emphasizes classroom and hands-on applications of full swing analysis and short game strategies. Special focus on golf course management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	113	Player Development IV	Emphasizes classroom and hands-on applications of full swing analysis and short game strategies. Special focus on golf course management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	114	Player Development V	Introductory instruction on golf game improvement to assist PGM students in preparation for Player Ability Test.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	120	Golf for Business and Life	Introduces nongolfing students to the game of golf. For beginners.	N	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	130	PGA/PGM Level 1	Focuses on golf professional training program and the completion of the PGA Level One experience kit. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	150	Teaching Golf I	Introduces golf instruction. Focus on fundamentals of golf swing and teaching techniques. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	166	Turf Equipment Management	Introduces turf equipment used on golf courses. Instruction in maintenance, adjustment, and safety issues.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGM	200	PGA/PGM Level 2	Focuses on golf professional training program and the completion of the PGA Level Two experience kit. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	250	Teaching Golf II	Communicating with student golfers, swing evaluation, key factors club fitting, developing a successful teaching practice.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGM	300	PGA/PGM Level 3	Business planning and operations, business communications related to business of golf. Completion of the PGA Level Three experience kit. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	350	Teaching Golf III	Teaching swing concepts. Developing a teaching philosophy, analyzing flawed swing mechanics through video and swing analysis software.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	363	Landscape and Turf Irrigation	Design, management, and maintenance of landscape and turf irrigation systems. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	4.		
PGM	367	Landscape Plants and Design	Identification, design, and use of plants in urban landscapes. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	4.		
PGM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGM	400	GPTP IV	Food and beverage control, supervision and delegation of golf facilities. Completion of the PGA Level Three experience kit.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	463	Golf and Sports Turf Management	Selection, establishment, and maintenance of turf grasses bred specifically for golf and sports facilities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
PGM	466	Integrated Pest Control	Management of pests affecting golf turf and landscape plants. Structural Pest Control Board sprayer certification preparation offered during the semester.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
PGM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	222	Human Sexual Behavior	Patterns of sexual behavior, including variations and deviations; theories of sexual attraction, sex differences, and sexual dysfunction and treatment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	304	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L or SB	
PGS	430	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned earned C or better or currently enrolled in MGT 301 or earned C or better or currently enrolled in PGS 101
PGS	452	Applied Social Psychology	Studies applications of social psychological theory and concepts in natural settings; research design and data analysis. Lecture, lab-type activities.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	Pre-requisites: PGS 350 or 351 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	453	Organizational Behavior	Surveys psychological theory and research as applied to the behavior of individuals in organizational settings.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisite: Must have earned C or better or currently enrolled in PGS 350
PGS	458	Group Dynamics	Theories and methods of group leadership, group effectiveness, communication within groups, and relations between groups and individual members.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PGS	471	Psychological Testing	Methods and theory of psychological testing; various types of psychological tests; consideration of ethical, social, and legal aspects of testing.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	
PGS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
PGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PGS	222	Human Sexual Behavior	Patterns of sexual behavior, including variations and deviations; theories of sexual attraction, sex differences, and sexual dysfunction and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	244	Introduction to Directed Child Study	Developmental theories and methods of social interaction with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PGS	270	Psychology of Adjustment	Principles of mental health, adjustment, conflict, stress, and coping processes derived from clinical and experimental research. Intended for nonmajors; cannot be used for major credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	
PGS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PGS	304	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed one of the following courses with a grade of C or greater or be currently enrolled: JUS 302, MAT 119, MAT 210, MAT 242, MAT 243, MAT 270, MAT 271, POS 401, PSY 230, QBA 221, SOC 390, SOC 395 or STP 226
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	344	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: CDE 232, ECD 314 or PGS 341 with C or better or currently enrolled; PSY 290 with C or better or currently enrolled
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PGS 101 with a grade of C or greater or be currently enrolled
PGS	351	Honors Social Psychology	Critical analysis of human social behavior for honors students; topics include stereotyping, social influence, attraction, aggression, helping, groups, and attitudes. Open only to students without previous credit for PGS 350.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	
PGS	365	Community Psychology	Mental health and psychological well-being in the community, emphasizing current issues and related research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 315 (or 350 or 351) with C or better; PSY 290 with C or better
PGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	399	Supervised Research	Experience within the context of current faculty research projects. Student is assigned responsibility depending on qualifications. Y grade only. May be repeated for a total of 6 hours.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		
PGS	414	History of Psychology	Historical development of psychology from its philosophical beginnings to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: PSY 290 with C or better
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed PGS 341 with a grade of C or greater or be currently enrolled
PGS	430	Industrial Psychology	Organizations and management systems; motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with a C or better or currently enrolled
PGS	441	Cognitive Development	Experimental and theoretical literature in child development and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed PGS 341 with a grade of C or greater within the past 16 terms (4 years) or be currently enrolled
PGS	443	Abnormal Child Psychology	Covers the major disorders of childhood and adolescence (e.g., autism, hyperactivity, phobias, and delinquency), including cause, diagnosis, treatment, and prevention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed one of the following: PGS 315, 341, 350 or 351 with a grade of C or greater or be currently enrolled; Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	444	Adolescent Psychology and Psychopathology	Advanced-level survey of normal adolescent psychological development and psychological disorders of this age period.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 341 with C or better; PSY 290 with C or better
PGS	445	Child Language and Drawing	Language acquisition and developmental changes in drawing, considered in the context of cognitive developmental stages. Children's representation and communication of knowledge through language and drawing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PGS 341 with a grade of C or greater within the past 16 terms (4 years) or be currently enrolled
PGS	446	Social Development	Discusses theory, research, and issues regarding social development. Topics may include formation of attachments, prosocial development, and gender-role development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PGS 341 with a grade of C or greater or be currently enrolled
PGS	451	Stereotyping, Prejudice, and Discrimination	Critical investigation of the processes underlying, and the factors contributing to, stereotyping, prejudice, and discrimination.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed either PGS 350 or 351 with a grade of C or greater or be currently enrolled
PGS	452	Applied Social Psychology	Studies applications of social psychological theory and concepts in natural settings; research design and data analysis. Lecture, lab-type activities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 350 or 351 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	458	Group Dynamics	Theories and methods of group leadership, group effectiveness, communication within groups, and relations between groups and individual members.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PGS 350 or 351 with a grade of C or greater within the past 16 terms (4 years) or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	461	Interpersonal Influence	Principles and procedures that affect the process of social influence; consideration of attitudinal, compliance-inducing, and perceptual influences.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PSY 290 with C or better; PGS 350 or 351 with C or better
PGS	462	Health Psychology	Contributions of psychology to health promotion and illness prevention, adaptation to acute and chronic illness, and to the healthcare system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	464	Minority Issues in Psychology	Psychological issues relating to the diversity of human cultural experiences among ethnic minorities in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	465	Psychology of Stress and Coping	Readings in theory and research in the area of stress and coping. Lecture, discussion, class presentations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 315, 350 or 351 with C or better; PSY 290 with C or better
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed MUE 381 or PSY 290 with a grade of C or greater or be currently enrolled
PGS	467	Psychology of Magical Beliefs	Psychological nature and bases of magical beliefs and their impact on health behaviors, eating practices, and interpersonal relations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PGS 315, PGS 466 or PSY 290 with a grade of C or greater or be currently enrolled
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	471	Psychological Testing	Methods and theory of psychological testing; various types of psychological tests; consideration of ethical, social, and legal aspects of testing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	472	Clinical Psychology	Clinical psychology as a science and profession. Historical development, methods of interviewing, assessment, and therapeutic intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 443 or 466 with C or better
PGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: PSY 290 with C or better
PGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-7		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-3		
PGS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PGS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		Pre-requisites: Must be a Graduate student, either degree seeking or non degree seeking
PGS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: Must be a Graduate student, either degree seeking or non degree seeking
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	250	Psychology and Society	Addresses how social and behavioral science theory and research are used to understand behavior related to various social issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	304-W	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: PSY 230 with a C or better or currently enrolled; ENG 102 ,105 or 108 with a C or better or currently enrolled; MAT 119 with a D or better or currently enrolled
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with a C or better or currently enrolled
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	344	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	344-W	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled; PGS 101 and PGS 341 with a C or better or currently enrolled
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with a C or better or currently enrolled
PGS	370	Interpersonal Relationships	Development of personal skills for competent functioning in interpersonal relationships across multiple social contexts. Principles of mental health adjustment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	385	Psychology of Gender	Examines, from a psychological perspective, the similarities and differences in beliefs, attitudes, and behaviors of women and men.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
PGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	399	Supervised Research	Experience within the context of current faculty research projects. Student is assigned responsibility depending on qualifications. Y grade only. May be repeated for a total of 6 hours.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-or Co-requisites: PSY 230 (with a C or better if completed)
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	
PGS	427-W	Psychology of Aging	Behavioral, experiential, and emotional phenomena associated with aging. Analysis of retained abilities and resources as well as losses and stresses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	430-W	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 350 with a C or better or currently enrolled or MGT 301 with a D or better or currently enrolled
PGS	443-W	Abnormal Child Psychology	Covers the major disorders of childhood and adolescence (e.g., autism, hyperactivity, phobias, and delinquency), including cause, diagnosis, treatment, and prevention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	Pre-requisites: PGS 315, 341 or 350 with C or better or currently enrolled; PSY 230 and PSY 290 with a C or better or currently enrolled; ENG 102, 105 or 108 with a C or better or currently enrolled
PGS	444-W	Adolescent Psychology and Psychopathology	Advanced-level survey of normal adolescent psychological development and psychological disorders of this age period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PGS 341, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	446-W	Social Development	Discusses theory, research, and issues regarding social development. Topics may include formation of attachments, prosocial development, and gender-role development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 341, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	453	Organizational Behavior	Surveys psychological theory and research as applied to the behavior of individuals in organizational settings.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 and PGS 350 with a C or better or currently enrolled
PGS	462	Health Psychology	Contributions of psychology to health promotion and illness prevention, adaptation to acute and chronic illness, and to the healthcare system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	465-W	Psychology of Stress and Coping	Readings in theory and research in the area of stress and coping. Lecture, discussion, class presentations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites:PSY 230 and PGS 290 with a C or better or currently enrolled; PGS 315 or PGS 350 with a C or better or currently enrolled
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 and PSY 230 completed with a C or better; PSY 290 with a C or better or currently enrolled
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with a C or better or currently enrolled
PGS	472-W	Clinical Psychology	Clinical psychology as a science and profession. Historical development, methods of interviewing, assessment, and therapeutic intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 466 with a C or better or currently enrolled
PGS	473	Psychology and Politics of Child Maltreatment	Examines psychological literature on child maltreatment in the context of development. Explores interactions between professionals responding to maltreatment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with C or better; PGS 341 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	480	Cross-Cultural Social Psychology	Focuses on patterns of social behavior in individualistic and collectivistic cultures. Includes multidisciplinary research using qualitative and quantitative methodologies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: PGS 101 with C or better; PGS 350 with a C or better
PGS	482	Social Influence and Consumer Behavior	Discusses social influence principles, emphasizing strategies employed by professionals that affect consumer behavior. Analyzes consumer defenses against manipulations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 350 with C or better
PGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
PGS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
PGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		

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PGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-requisites: PGS 399 with a C or better or currently enrolled
PGS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
PGV	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	120	Introduction to Medical and Bioethics	Philosophical examination of moral problems that arise in medicine and biology, e.g., end-of-life, reproduction, and patient's rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	300	Philosophical Argument and Exposition	Develops techniques of philosophical argument and exposition. Frequent written exercises. Course content may vary with instructor.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L	
PHI	301	History of Ancient Philosophy	History of Western philosophy from its beginnings through the Hellenistic period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
PHI	302	History of Modern Philosophy	History of Western philosophy from the Renaissance through Kant.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
PHI	304	Existentialism	Covers such topics as absurdity, authenticity, the meaning of life and death, responsibility, and subjectivity. May include readings in phenomenology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	305	Ethical Theory	Current theories about the nature of morality (metaethics) and about what is right and wrong (normative ethics).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	

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PHI	307	Philosophy of Law	Nature and source of law and its relation to morality. Legal rights, legal enforcement of morals, civil disobedience, liability and responsibility, punishment, judicial reasoning, justice, property, and differences between theories of natural and positive law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	308	Philosophy of Art	Central problems in philosophy of art, e.g., the nature of a work of art, modern and traditional theories of art, aesthetic perception and experience, and objectivity and relativity in art criticism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	309	Social and Political Philosophy	Alternative principles and methods relevant to problems of human association and conflict; discusses justice and power, freedom and equality, and autonomy and order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	310	Environmental Ethics	Examines a full range of philosophical positions pertaining to our moral relationship to the natural world; anthropocentrism, individualism, biocentrism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	311	Philosophy in Literature	Selected works of literature introducing philosophical problems such as the nature of moral goodness and people's relation to the world and other people.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	312	Theory of Knowledge	Nature, sources, and limits of human knowledge. Topics may include truth, a priori knowledge, empirical knowledge, perception, induction, and skepticism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	Credit is allowed for only HPS 314 or PHI 314.
PHI	315	Philosophy of Language	Problems pertaining to the nature of language, including meaning, reference, truth, definition, analyticity, translatability, synonymy, and contributions of contemporary linguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	316	Metaphysics	Problems pertaining to the nature of reality. Topics may include nature of person, minds, substance, universals, space, time, causation, and modality.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	317	Philosophy of Mind	Nature of consciousness. Common sense view of mind, behaviorism, materialism, dualism, functionalism, self-knowledge, and knowledge of other minds.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	318	Philosophy of Religion	Classical arguments for the existence of God. Argument from evil against the existence of God. Justification of religious belief.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	319	Philosophy of Computing	Philosophical problems surrounding the theory of computation. Turing machines, mind and AI, neural network computing, ethics, and epistemology of computing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	CS	
PHI	320	Bioethics	Critical examination of moral questions arising in biomedical contexts, particularly due to new technologies and scientific discoveries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	325	Philosophy of Social Science	Philosophical problems surrounding the aims, structure, and methods of the social sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU or SB	
PHI	333	Introduction to Symbolic Logic	Symbolic techniques, emphasizing deductions and proofs in the propositional and 1st-order predicate calculi.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	335	History of Ethics	Major works of moral philosophy, both ancient and modern, such as those by Plato, Aristotle, Hobbes, Hume, Kant, and Mill.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	390	Jewish Philosophy	The history of Jewish philosophy from its origins in the Hebrew Scriptures to postmodern expressions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102 (or 105, or 108) with a grade of C or better. Students who have credit for PHI 390 may not enroll in REL 314
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	401	Rationalism	Examines classical philosophical rationalism, as in Descartes, Spinoza, Malebranche, or Leibniz. Contemporary rationalist thought may also be examined.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	402	Empiricism	Examines representatives of either classical or contemporary philosophical empiricism, e.g., Bacon, Hobbes, Locke, Butler, Berkeley, Reid, Hume, Mill, Carnap, and Ayer.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	403	Contemporary Analytic Philosophy	Aims and methods of such 20th-century philosophers as Frege, Moore, Russell, Wittgenstein, Carnap, Ayer, Wisdom, Ryle, Austin, Strawson, Quine, and Sellars, with application to metaphysics and epistemology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
PHI	413	Advanced Symbolic Logic	Properties of formal systems axiomatizing propositional and 1st-order predicate logic. May also include modal logic, number theory, and limits of logicism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	420	Topics in Philosophy	Course descriptions on file in department. May be repeated for credit.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	428	Immunophilosophy	Integrates immunology and philosophy, including psychoneuroimmunology and the mind-body problem, and immunologic/psychologic perspectives on self and self-identity.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: MIC 420, PHI 317, HPS314, or PHI 314 with a C or better. Students who have credit for MIC 428, may not enroll in PHI 428
PHI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		

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PHI	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		Pre-requisites: Must be an Honors student
PHI	493	Honors Thesis		N	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6	L	Pre-requisites: Must be an Honors student
PHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	497	Honors Colloquium		Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		
PHI	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-7		
PHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		
PHI	501	Foundations of Ethics I	Studies primary texts of classic ethical theories and their applications to various issues in daily life and the professions. Ethical traditions include some of these frameworks: virtue ethics and natural law ethics, consequentialism and contractualism, deontology and critical communitarianism. Pays attention to the shifting nature of the relation between ethics and religion. In the applied, activity-portion of the course, students investigate real-life ethical issues and examine them from several normative perspectives.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PHI	550	Ethical and Spiritual Issues in Pastoral Care	Recalling the ancient Socratic, biblical, and other spiritual traditions of the cura animarum (care for and cure of the soul) and joining contemporary post/secular conversations relevant to the integration of the body-mind-spirit, this course introduces basic concepts and practices of the pastoral care ethics and spirituality. Focuses on the irreducible relations among existential (ontological), therapeutic (psychosomatic), and spiritual (religious) dimensions of care. The theoretical part of the course is inter-faith in approach, holistic in scope, and specialized in content; in the applied, activity-portion of the seminar, students investigate real-life issues in care ethics and spirituality and examine them from several perspectives studied during the semester.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: AEP 501 and AEP 502 with a D or better; students who have credit for PHI 550 or REL 585, may not enroll in AEP 550
PHI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisites: Masters or Doctoral Philosophy student.
PHI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		
PHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
PHI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PHI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		

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PHI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		
PHI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		
PHI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 101, 105 or 107 with C or better
PHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	306-W	Applied Ethics	Uses philosophical techniques to elucidate such vital moral issues as sexual perversion, civil disobedience, abortion, punishment, violence and pacifism, suicide, and euthanasia.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	318	Philosophy of Religion	Classical arguments for the existence of God. Argument from evil against the existence of God. Justification of religious belief.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	324	Existential Ethics	Ethical aspects of theistic and atheistic accounts of existentialist philosophy. Freedom and responsibility and their significance in human experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	340	Bioethics	Philosophical exploration of ethical issues in healthcare delivery and the life sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	360	Business and Professional Ethics	Examines moral theories applied to cases of corporate responsibility, property rights, environment, fairness, profit, employee rights, and responsibilities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	406	Moral Dilemmas	Philosophical analysis of moral dilemmas arising in professional and public settings. Ethical decision making in business, educational, human service, and scientific communities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: Must have completed ENG 101, or 105 with a grade of C or greater, or be currently enrolled in ENG 101, or 105
PHI	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
PHI	408	Feminist Ethics	Philosophical exploration of the theoretical and practical aspects of ethical issues affecting women from diverse feminist viewpoints.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	409	Eco-Community Ethics	Traces human interaction with the Earth from hunters and gatherers to the present day, examining groups who have lived within ecological constraints and limits.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	120	Introduction to Medical and Bioethics	Philosophical examination of moral problems that arise in medicine and biology, e.g., end-of-life, reproduction, and patient's rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Credit is allowed for only HPS 314 or PHI 314.
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PHI	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
PHL	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PHL	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHS	110	Fundamentals of Physical Science	One-semester survey of the principles of physics and chemistry. Presumes understanding of elementary algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHS	208	Patterns in Nature	Project-oriented science course with computer training to develop critical thinking and technical skills for student-oriented K-12 science lessons. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in physical science and physics. Requires weekly reflective reading and writing. May be repeated for credit. Fee.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	3.	C	
PHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6	L	Pre-requisites: Must be an Honors student
PHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-7		
PHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-3		
PHS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	505	Energy and the Environment	Current problems in energy resources, production, consumption, and conservation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHS	530	Methods of Physics Teaching I	Inquiry approach to high school physics teaching.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	531	Methods of Physics Teaching II	Extension of modeling techniques introduced in PHY 580.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	534	Methods of Teaching Physical Science I, II, III	Design of curriculum and conduct of instruction for physical science courses.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	540	Integrated Physics and Chemistry	Collaborative inquiry methods for teaching and coordinating physics and chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	542	Integrated Mathematics and Physics	Mathematical models and modeling as an integrating theme for secondary mathematics and physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	550	Physics and Astronomy	Astronomy curricula and projects for secondary school, with emphasis on the role of physics in astronomy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	556	Astrophysics	Structure and evolution of stars, galaxies, and the universe. For secondary school teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	560	Matter and Light	Interactions of light with matter. Lasers and spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	564	Light and Electron Optics	Principles and practice of electron-optical instruments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	570	Spacetime Physics	Special and general theories of relativity with implications for space and time travel.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	581	Structure of Matter and its Properties	Models of matter and its properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-15		
PHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	Pre-requisites: PHY 111 with D or better or currently enrolled
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre- or Co-requisite: PHY 111 (with D or better if completed)
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre- or Co-requisite: PHY 112 (with D or better if completed)
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	122	University Physics Laboratory I	Lab accompanying PHY 121. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	132	University Physics Laboratory II	Lab accompanying PHY 131. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit. fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
PHY	321	Vector Mechanics and Vibration	Vector-based formulation of Newtonian mechanics of particles and rigid bodies, including oscillatory systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
PHY	331	Principles of Modern Electromagnetism	Studies the unified description of electromagnetic phenomena provided by Maxwell's equations in differential and integral form.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHY	105	Basic Physics	One-semester survey of the principles of physics. Primarily for students who intend to take PHY 121, 131 but have not taken high school physics.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: PHY 111 with D or better or currently enrolled
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre- or Co-requisite: PHY 111 (with D or better if completed)
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre- or Co-requisite: PHY 112 (with D or better if completed)
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: MAT 265, MAT 270 or MAT 290 with D or better or currently enrolled
PHY	122	University Physics Laboratory I	Lab accompanying PHY 121. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre- or Co-requisite: PHY 121 (with D or better if completed)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: MAT 271 or MAT 291 with D or better or currently enrolled; PHY 121 with D or better or currently enrolled; Co-requisite: MAT 272
PHY	132	University Physics Laboratory II	Lab accompanying PHY 131. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit. fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre or Co-requisite: PHY 131 (with D or better if completed)
PHY	150	Physics I	Introductory physics for majors. Kinematics, Newton's Laws, basic forces, energy, momentum, special relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 270 or MAT 290 with C or better
PHY	151	Physics II	Continuation of PHY 150. Electromagnetic fields; Ampere's and Faraday's Laws; Maxwell's equations; basic circuit elements. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 271 or MAT 266 with C or better; PHY 150 or PHY 121 and PHY 122 with C or better
PHY	190	Seminar: Physics as a Curriculum and a Profession	Seminar for new Physics majors. Instruction and information on curriculum, departmental functions, and professional preparation. Weekly meetings and excursions. Pass/fail grading.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of Physics	1.		
PHY	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	201	Mathematical Methods in Physics I	Differential equations, linear equations, vectors, matrices, Fourier series, and numerical methods. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	CS	Pre-requisites: MAT 267 or MAT 272 with a C or better; PHY 131 or PHY 151 with a C or better; and PHY 132 with a C or better
PHY	241	University Physics III	Thermodynamics, kinetic theory, physical and wave optics, relativity, photons, matter waves, atomic physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 131
PHY	252	Physics III	Continuation of PHY 151. Wave physics, oscillations, harmonic systems, physical optics, thermodynamics, kinetic theory. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 272 or MAT 267 with C or better; PHY 151 (or PHY131 and PHY132) with C or better
PHY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHY	302	Mathematical Methods in Physics II	Continuation of PHY 201. Vector calculus, complex variables, partial differential equations, special functions, numerical methods. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY201 with C or better
PHY	310	Classical Particles, Fields, and Matter I	Particle kinematics, mechanics, conservation laws, particle motion in force fields, dynamics of two-body systems, reference frames, rigid body motion, relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 201 with C or better; PHY 252 with C or better. Co-requisite: PHY 302
PHY	311	Classical Particles, Fields, and Matter II	Electrostatic and gravitational fields, Poisson and Laplace equations, dielectric materials, magnetic fields and materials, magnetic induction, Faraday's Law. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 302 with C or better; PHY 310 with C or better
PHY	314	Quantum Physics I	Photons, models of the atom, wave properties of matter, introduction to wave mechanics, 1-D systems in quantum mechanics. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Prerequisites: PHY 201 with C or better; PHY 252 with C or better
PHY	315	Quantum Physics II	General principles of quantum mechanics, 3-D problems, approximation methods, spin, introduction to many-particle systems. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 302 with C or better; PHY 314 with C or better
PHY	321	Vector Mechanics and Vibration	Vector-based formulation of Newtonian mechanics of particles and rigid bodies, including oscillatory systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	331	Principles of Modern Electromagnetism	Studies the unified description of electromagnetic phenomena provided by Maxwell's equations in differential and integral form.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	333	Electronic Circuits and Measurements	Basic principles of electronic circuit analysis and measurement techniques using modern instrumentation and computer-aided analysis of data. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Prerequisites: MAT 272 or MAT 267 with C or better; PHY 151 or PHY 131 and PHY132 with C or better
PHY	334	Advanced Laboratory I	Selected experiments from contemporary physics. Emphasizes modern instrumentation, computer-assisted acquisition and analysis of data, and report form writing. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		Pre-requisites: MAT 272 or MAT 267 with C or better; PHY 151 or PHY 131 and PHY 132 with C or better
PHY	361	Introductory Modern Physics	Special relativity and introductory quantum theory with applications drawn from atomic, nuclear, and solid-state physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	412	Classical Particles, Fields, and Matter III	Electromagnetic fields of moving charges, Maxwell's equations, harmonic phenomena, oscillations, waves, electromagnetic radiation, covariant electromagnetism, introduction to general relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisite: PHY 311 with C or better
PHY	416	Quantum Physics III	Introduces the quantum theory of atoms, molecules, solids and nuclei, Dirac's equation. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisite: PHY 315 with C or better
PHY	420	Research Paper	Scientific report writing. Culminates in a paper based on library or lab research or both. Taken in conjunction with other courses as approved.	N	RSC	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	L	
PHY	441	Statistical and Thermal Physics	Statistical and experimental basis of heat, temperature, and entropy. Mechanical and statistical basis of the laws of thermodynamics. Applies macroscopic thermodynamics. Phase equilibrium.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311 with C or better; PHY 315 with C or better
PHY	452	Physical Optics	Principles of reflection, refraction, diffraction. Additional topics from contemporary optics may include Fourier transform spectroscopy, linear systems theory, holography.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 302 with C or better; PHY 311 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	462	Subatomic Physics	Nuclear properties, models, decays and reactions; fundamental forces, field theories, symmetry principles; hadrons, quarks, and leptons; the Standard Model.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311 with C or better; PHY 315 with C or better
PHY	465	Advanced Laboratory II	Continuation of PHY 334. Students may substitute a short laboratory research project for one of the elective experiments of the course, in consultation with a faculty sponsor and the course instructor. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 334 with C or better
PHY	466	Advanced Laboratory III	Continuation of PHY 465. fee	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisite: PHY 465 with C or better
PHY	480	Methods of Teaching Physics	Evaluates various approaches to the teaching of high school physics. Preparation of demonstrations and experiments. Organization of a lab. Designed for secondary school physics teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	481	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 481 or 511.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311 with C or better; PHY 315 with C or better
PHY	482	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 482 or 512.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 481 with C or better. Students who have credit for PHY 512, or MSE 527, or NAN 512, may not enroll in PHY 482
PHY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6		Pre-requisites: Must be an Honors student
PHY	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6	L	Pre-requisites: Must be an Honors student
PHY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	495	Project Research	Supervised project in physics or astrophysics. May be repeated for credit.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		
PHY	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-7		
PHY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-3		
PHY	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	501	Methods of Computational and Theoretical Physics	Analytic and computational approaches to problems in classical and quantum physics. Topics may include numerical analysis, molecular dynamics, Monte Carlo simulations, density functional theory, high performance computing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	502	Methods of Theoretical Physics	Continuation of PHY 501.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	511	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 511 or 481.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	512	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	521	Classical and Continuum Mechanics	Variational principles, Lagrange's and Hamilton's equations, canonical transformations, Hamilton-Jacobi theory, introduction to chaos and nonlinear dynamics, fundamentals of elasticity theory and fluid mechanics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	523	Relativity	Special and general theories of relativity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	531	Electrodynamics	Special theory of relativity, covariant formulation of electromagnetic interactions, Maxwell's equations, electrostatics and magnetostatics, dielectric media, inhomogeneous wave equations, Lienard-Wiechert potentials, interactions of charged particles and electromagnetic waves, scattering and diffraction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	532	Advanced Topics in Electrodynamics	Electromagnetism of dielectric media, magnetic media, and superconductors; introduction to magnetohydrodynamics, laser physics, and nonlinear optics; additional special topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	541	Statistical Physics	Postulates of statistical mechanics, equilibrium ensembles, Bose and Fermi statistics, density matrix, modern theory of phase transitions, fluctuations, and linear response theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	542	Topics in Biophysics	Overview of modern biology, length scales: emphasizes molecular and cellular biology. Nonequilibrium systems: compare and contrast stochastic processes in biological and physical systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	551	X-Ray and Electron Diffraction	Fresnel and Fraunhofer diffraction in integral formulation; diffraction of x rays and neutrons by crystal lattices; structures of solids, including crystal structure analysis; theory and techniques of electron microscopy/diffraction of crystalline/noncrystalline specimens.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		If you have credit for MSE 552, or NAN 552, or SEM 552, you may not enroll in PHY 552
PHY	553	Electron Microscopy Laboratory I	Lab support for PHY 552.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.		Pre-requisites:If you have credit for MSE 553, you may not enroll for PHY 553. Must co-enroll in MSE 552 or PHY 552
PHY	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent beam diffraction, and electron holography.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	555	Electron Microscopy Laboratory II	Lab support for PHY 554.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	561	Nuclear Physics	Properties of nuclei, conservation laws, internucleon forces, nuclear structure models, reactions and decays, quark model with applications to nuclei.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	562	Nuclear Physics	Continuation of PHY 561.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	567	Relativistic Quantum Mechanics and Field Theory	Relativistic quantum mechanics and introduction to the quantum field theory of scalar, spinor, and electromagnetic fields. QED through renormalization theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	568	Particle Physics Phenomenology	Hadron physics, internal symmetry groups, weak interactions, lepton and quark phenomenology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	569	The Standard Model and Beyond	Introduces and applies the standard model of strong and electroweak interactions. Special topics include recent developments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	571	Quantum Physics	Review modern physics, chemistry, math. Differential equation, operator, matrix formulations. Free particle, bound state problems. Examples from physics, chemistry and nanoscience.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only NAN 571 or PHY 571
PHY	576	Quantum Theory	Operator methods in quantum mechanics, time-independent perturbation theory, variational methods, angular momentum and group representation theory, identical particles; quantum dynamics, including time-ordered operators, time-dependent perturbation theory, and Fermi's golden rule.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	577	Advanced Quantum Theory	Scattering in three dimensions, second quantization of bosons and fermions, quantization of electromagnetism, addition of angular momenta, electronic structure of atoms and molecules, introduction to relativistic quantum mechanics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	581	Quantum Theory of Solids I	Band structure models: pseudopotentials, density functional theory; optical and magnetic response; elementary excitations; transport theory, electron-photon interactions and superconductivity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	582	Quantum Theory of Solids II	Continuation of PHY 581: broken symmetry; phase transitions; disorder, topological defects; nano-structures topics; soft condensed matter and current research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	587	Quantum Optics	Quantization of the electromagnetic field. Quantum theory of coherence, photon counting, photon states, lasers, density operators, and atomic Raman scattering.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	588	Quantum Optics	Continuation of PHY 587.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-15		
PHY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-15		
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	Pre-requisites: must have completed PHY 111 with a grade of C or greater, or be currently enrolled in PHY 111
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre-requisites: Must be co-enrolled in PHY 111
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre-requisites: must have taken PHY 112 with a C or greater, or be currently enrolled; or be co-enrolled in PHY 112
PHY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	SQ	

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PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	SQ	
PLA	161	Graphic Communication	Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be Pre-Landscape Architecture student
PLA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
PLA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	222	Computers in Landscape Architecture	Computer applications in landscape architecture including CAD, GIS, graphics, and visualization.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	CS	
PLA	240	Landscape Survey Techniques	Develops landscape survey skills including aerial photography, satellite images, geo-referencing, landscape surveys, and field data collection.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	261	Landscape Architecture I	Landscape communication: communication techniques for urban planning and landscape architecture. Credit is allowed only for PLA 261 or PUP 261.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		
PLA	262	Landscape Architecture II	Reading the landscape: observing, experiencing, and graphically expressing the symbolic and aesthetic significance of natural landscapes.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		
PLA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	344	Landscape Construction II	Characteristics of materials and methods used in landscape architectural construction. Studio.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	345	Professional Practice Seminar	Landscape architecture practice including contracts, project and office management, liability, licensing, and professional development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	412	Landscape Ecology and Planning	Reviews the evolution of landscape ecology and landscape planning and examines use and value.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	413	Southwest Landscape Interpretation	Explores methods and implications of landscape interpretation within the American Southwest.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	420	Theory of Urban Design	Analyzes the visual and cultural aspects of urban design. Theories and techniques applied to selected study models.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
PLA	446	Landscape Construction III	Landscape construction focusing on low-technology, biotechnical, regional, and experimental techniques or systems. Lecture, studio.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	462	Landscape Arch VI	Advanced landscape architecture: integrative capstone studio with multifaceted design problems. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		Pre-requisites: Must be Landscape Architecture BSLA student; Must have completed PLA 461 with a grade of C or greater or be currently enrolled
PLA	485	International Field Studies in Planning	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	N	FLD	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12	G	
PLA	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
PLA	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
PLA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		

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PLA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
PLA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLB	414	Plant Pathology	Identification and control of biotic and abiotic factors that cause common disease problems to plants.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	L	
PLB	108	Concepts in Plant Biology	Introduces concepts of plant biology that are of human relevance using commercially important, edible, and medicinal plants as examples. Not for majors in the biological sciences. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
PLB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	200	Biology of Plants	Analyzes the structure/function interaction for plant cells and tissues and properties that emerge in whole plants. Both PLB 200 and PLB 201 must be taken together to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SQ	
PLB	201	Biology of Plants Laboratory	Lab/field experiments to teach techniques and protocols of the scientific process; reinforces concepts from lecture by asking questions and solving problems. Both PLB 200 and PLB 201 must be taken together to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	SQ	
PLB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	300	Comparative Plant Diversity	Surveys major plant groups and other photosynthetic organisms. Emphasizes comparative data analysis, evolutionary inference, and phylogenetic methods. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L or SG	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	302	Plants and Civilization	Plants and plant products used by people throughout the world. Cultivation, processing, and uses in modern life (beverages, fibers, foods, medicinals, and perfumes).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	304	Biology of Algae and Fungi	Ecology, economics, and evolutionary diversity of the algae and fungi. Traditional and modern biotechnological uses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	305	Desert Annuals, Cacti, and Succulents	Adaptive biology of desert annuals, cacti, and succulents, analyzing diverse traits that permit survival in deserts: reproduction, structure, and physiology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	306	Plant Anatomy	Development and mature structure of tissues of vascular plants; patterns and modifications of the leaf, stem, root, and flower.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	308	Plant Physiology	Concepts of plant function: carbon metabolism, energy acquisition, regulation of growth and development, stress responses, and water and nutrient uptake.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	310	The Flora of Arizona	Overview of Arizona's flora and plant communities; emphasizes identification, classification, and natural history of the state's native vascular species. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	320	Environmental Science (Nonmajor)	Environmental and biological concepts used to understand ecological systems with specific references to problems caused by humans. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	G	
PLB	322	Environmental Science (Major)	Nature of environmental and biological interaction: historical and modern examples, regional and global issues. Participation in environmental problem-solving activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	350	Applied Genetics	Introduces molecular genetics with emphasis on application of genetics to solve biological questions and to engineer organisms for biotechnology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MBB 247 or BIO 340 with C or better; Credit is allowed for only MBB 350 or PLB 350
PLB	400	Lichenology	Chemistry, ecology, physiology, and taxonomy of lichens.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	401	Mycology	Fungal morphology and systematics with an introduction to fungal cell biology, ecology, economic significance, and growth and development.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better

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PLB	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in plant biology; requires weekly reflective reading and writing. Fee.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	404	Phycology	Algae (both fresh water and marine forms), emphasizing field collection and identification of local representatives. Morphological, ecological, and economic aspects of the algae. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	407	Plant Fossils and Evolution	Broad survey of plant life of the past, including the structure of plant fossils, their geologic ranges, geographic distribution, and paleoenvironment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	410	Angiosperm Taxonomy	Principles underlying angiosperm phylogeny.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: PLB 310 with C or better
PLB	411	Trees and Shrubs of Arizona	Identification of woody plants from desert, chaparral, and forest habitats in Arizona. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	414	Plant Pathology	Identification and control of biotic and abiotic factors that cause common disease problems to plants.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	416	Medical Botany	Explores plants affecting human health: modern- and folk-usage medicinal plants. Quality control, clinical evidence, plant chemistry, and ethnopharmacology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	420	Plant Ecology: Organisms and Populations	Factors and controls on the physiological ecology and organization of plants and plant populations using empirical and theoretical approaches. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with C or better
PLB	421	Plant Ecology: Communities and Ecosystems	Plant community organization, field sampling techniques, and the structure and function of terrestrial ecosystems emphasizing the role of vegetation. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with C or better
PLB	422	Plant Geography	Plant communities of the world and their interpretation, emphasizing North American plant associations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: GPH 111 or BIO 187 (or both PLB 200 and PLB 201) with C or better; Students who have credit in GPH 422, may not enroll in PLB 422
PLB	430	Statistical Analyses in Environmental Science	ANOVAS, 1-way classification of factorial and partially hierarchic designs; introductory multivariate statistics. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better
PLB	432	Computer Applications in Biology	Computer analysis techniques in biology emphasizing data entry, management and analysis, and graphic portrayal. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: C or better in: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
PLB	434	Landscape Ecological Analysis and Modeling	Technical methods of landscape ecological analyses. Includes mathematical and statistical examination and modeling of landscape ecological patterns and processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with C or better
PLB	440	Photobiology	Principles underlying the effects of light on growth, development, and behavior of plants, animals, and microorganisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better; Students who have credit in BIO 464, may not enroll in PLB 440
PLB	444	Plant Growth and Development	Molecular basis of development, role of signal transduction pathways/gene regulation in control of organ formation, pollination, germination, and growth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 353 with C or better
PLB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	492	Honors Directed Study		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors Student
PLB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
PLB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
PLB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
PLB	502	Perspectives in Plant Biology	Introduces major areas of research within the department with the goal of broadening knowledge to enable multidisciplinary research and communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	525	Microclimate Methods	Techniques to measure and quantify microclimate and mass transfer. Supporting principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	530	Introduction to Structural and Molecular Biology	Structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	540	Plant Biochemistry	Structure/function relationships of molecules, emphasizing processes unique to plants: carbon fixation, synthesis of storage products, pigments, and secondary metabolites.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	550	Plant Molecular Biology	Biochemistry and molecular biology of plant organelles, including protein targeting, plant viruses, and molecular designs for plant improvements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
PLB	552	Plant Genetic Engineering	Plant transformation, utilization of transgenic plants, transient gene expression assays, and applications of plant genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		

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PLB	553	Plant Genetic Engineering Laboratory	Plant transformation, utilization of transgenic plants, transient gene expression assays, and applications of plant genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
PLB	554	Plant Biotechnology	Aseptic, clonal propagation of plants and in vitro culture of cells, organs, and tissues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	558	Molecular Mechanisms of Photosynthesis	Structure and function of photosynthetic complexes; mechanism of energy conversion in plants, bacteria, and model systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
PLB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
PLB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
PLB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
PLC	101	Elementary Polish	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
PLC	102	Elementary Polish	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: PLC 101 with D or better or currently enrolled
PLC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
PLC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	201	Intermediate Polish	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		

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PLC	202	Intermediate Polish	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: PLC 201 with D
PLC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	11-12		
PLC	492	Honors Directed Study		N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
PLC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
PLC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
POL	101	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POL 110 or 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	160	Global Politics	The nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas. Credit is allowed for only POL 160 or 360.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Students may not enroll in POS 160 if they have received a D or better in POL 160, POS 360, or POL 360.
POL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POL	247	Introduction to Latin American Politics	General introduction to the politics and socioeconomic structures of Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
POL	310	American National Government: Ideas and Institutions	Historical, analytic context of constitutionalism and citizenship vis-à-vis social, economic, and political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POL 310 or 110.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	Students may not sign up for POL 310, if they have received a D or better in POL 110, or POS 110
POL	313	The Congress	The modern American Congress: its role, power and interrelationship in the American political system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	314	The American Presidency	Office, role, and power of the American presidency in the American political system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	320	Latino Politics	Examines contemporary political issues in the diverse Latino community.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
POL	331	Public Opinion	Examines U.S. public opinion, the diversity of its cultural sources, and political influence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	336	Electoral Behavior	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	340	Political Theory	Surveys ancient, modern, and contemporary political theorists and ideas in European and American contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU or SB	
POL	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	

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POL	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	360	World Politics Theory	Theoretical examination of one or more aspects of international politics, e.g., foreign policy, negotiations, alliances, crises, wars, and international systems. Credit is allowed for only POL 360 or 160.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Credit is allowed for only POL 360, POS 160 or POL 160.
POL	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POL	417	The Arizona Political System	Contemporary political problems within the context of Arizona's political, social, and constitutional frameworks. Meets the Arizona Constitution requirement for teacher certification.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	430	Race and Politics in the Americas	Studies racial politics in North, Central, and South America with a focus on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	434	Media and Politics	Studies mass media and politics in the United States, e.g., media and elections, media and government.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	435	Women, Power, and Politics	The roles and treatment of women within various political contexts. Specific focus may vary with instructor.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
POL	436	Gender, Sexuality, Nation-States	Issues and problems related to the interface of gender, sexualities, nationalisms, and states in various world contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	440	Political Futures through Science Fiction	Examines the relationship between politics and science fiction literature and film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or HU	
POL	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	446	Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	447-W	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
POL	453	Latin American Cities	Urban studies of Latin American world cities, e.g., Mexico City, Santiago, emphasizing integration with U.S. cities, including Los Angeles, Phoenix.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	454	Mexico: Politics, Economy, Cultures	Politics, economy, and cultures in Mexico in historical and contemporary perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	460	Politics of Globalization	Theories and analysis of the politics of economic and technological globalization in the contemporary world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	464	Border Cities: Action Research on Globalization	Examines the effects of globalization on U.S.-Mexico border cities and towns with particular emphasis on Mexican border cities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	470	Law and the Political Order	Investigates concepts of justice, political rights, adjudication and legislation, legal ordering, constitutional law, law as an instrument of change.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	480	Global Justice	Explores questions of justice that cross national borders, including delivery of foreign aid, immigration, and military intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
POL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	486	Global Political Economy	Contending approaches to historical and contemporary issues of international political economy, including global welfare, equality, ecology, and peace.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
POL	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
POL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

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POL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
POL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POR	101	Elementary Portuguese	Basic grammar with intensive drills in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
POR	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
POR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	201	Intermediate Portuguese	Continuation of POR 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:POR 101 with a grade of C or better or currently enrolled
POR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	313	Portuguese Composition and Conversation	Develops skill in written Portuguese and corrected oral expression. Must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: POR 201 with C or better
POR	314	Portuguese Composition and Conversation	Continuation of POR 313.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: POR 313 with C or better
POR	321	Luso-Brazilian Literature	Representative masterpieces of Portuguese and Brazilian literature from the beginning to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: POR 313 with C or better
POR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	472	Luso-Brazilian Civilization	Lectures, readings, and discussion of important aspects of Luso-Brazilian civilization. Topics from music, art, folklore, literature, history, and politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites: POR 313 with C or better
POR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
POR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
POR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
POR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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POR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
POR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	101	Elementary Portuguese	Basic grammar with intensive drills in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.		
POR	201	Intermediate Portuguese	Continuation of POR 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
POS	434	Media and Politics	Studies mass media and politics in the United States, e.g., media and elections, media and government.	N	LEC	N	OPT	Liberal Arts and Sciences	INACTIVE Department of Political Science	3.	SB	
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	Students may not sign up for POS 110 who have received a D or better in POS 310
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		Pre-requisites: Freshman status; Maximum 25 hours
POS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		Pre-requisites: Maximum 25 hours
POS	210	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	220	Political Issues and Public Policy	Contemporary social problems and political issues, particularly development of public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	230	Current Issues in National Politics	Major issues facing national governments in the domestic field.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	L or SB	
POS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(HU or SB) & G	
POS	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(L or SB) & G	
POS	270	American Legal System	Concepts, institutions, classifications, and functions of law. Role of the courts and impact of judicial decision making on social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	300	Contemporary Global Controversies	Explores key controversies in global politics including security, economic stability, poverty, gender, race, and the environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	301	Empirical Political Inquiry	Logic of political inquiry, including research problems, concepts, hypotheses, theories, measurement, data collection, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	305	Politics and Film	Examines portrayal of political events, ethnic groups, and sociopolitical situations in film, a major medium addressing questions of human values. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110

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POS	311	Arizona Constitution and Government	Constitution and government of the State of Arizona. Credit is allowed for only POS 311 or 316 or 417. Meets the Arizona constitution requirement for teacher certification. May not be counted for the major or a teaching major or minor in Political Science	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	2.		
POS	313	The Congress	Lawmaking process in the U.S. Congress.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	314	The American Presidency	Office, role, and power of the American presidency in the American political system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	315	The Supreme Court	Role of the Supreme Court in American society and politics; examines decision-making process and impact of decisions; restraint versus activism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	316	State and Local Government	Surveys the operations, problems, and policies of state and local governments in the United States. Credit is allowed for only POS 316 or 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	320	Public Administration	Role of the administrator in the political process with an examination of the basic concepts of bureaucracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	325	Public Policy Development	Examines one or more aspects of public policy development including agenda setting and policy formulation, implementation, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	330	Contemporary Controversies in Domestic Politics	Explores key controversies in domestic politics including the environment, the economy, poverty, gender, race, and security.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	331	Public Opinion	Formation, expression, and influence of individual and organized opinion on political institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	332	American Political Parties	Development of the American party system. Party organization and functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	333	Interest Groups	Examines how minority, corporate, labor, farm, consumer, environmental, health, education and public interest groups, and single-issue movements influence government.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	336	Voters in America	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	340	History of Political Philosophy I	Western political philosophers and their theories to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H	
POS	341	History of Political Philosophy II	Western political philosophers and their theories from the 17th to the 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H	
POS	346	Problems of Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	351	Democratization	Examines the consolidation of democracies in postauthoritarian and postcommunist settings (e.g., Latin America, Eastern Europe, Asia).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	355	Russia and Successor States	Description and analysis of political institutions and practices in Russia and successor states.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	356	European Union	History and workings of EU member states, including single market, Euro, legal system, ethnonationalism, immigration, expansion, trade wars, and defense.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	357	South Asia Politics	Political culture and systems of South Asia examined through study of political writings, novels, and poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	358	Southeast Asia	Political background, governmental institutions, political dynamics, and developmental problems of Southeast Asian nations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	359	African Politics and Society	Comparative analysis of socioeconomic forces, political processes, government institutions, and political novels in Sub-Saharan Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	

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POS	360	World Politics	Theory and practice of statecraft as applied to selected issues, regions, or eras. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	364	National Security, Intelligence, and Terrorism	Theoretical and empirical assessment of U.S. national security policy in the post-cold war era.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	368	Ethics and Human Rights	Explores issues of ethics, morality, and human rights in the global community.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	369	War, Politics, and Society	Relationships between techniques/technology of war and political/social structures in different time periods and locations. Who commands, dies, and pays?	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	370	Law and Society	Analyzes debates among social scientists and legal theorists concerning the relationship between law and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	401	Political Statistics	Basic concepts in statistics as they facilitate the description, explanation, and prediction of social and political phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	CS	Pre-requisite: POS 301
POS	410	Governing American Cities	Reviews modern urban problems, their sources, and potential solutions, including structural and policy alternatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	417	Arizona Political System	Contemporary political problems within the context of Arizona's constitutional, political, and social frameworks. Meets the Arizona Constitution requirement for teacher certification. Credit is allowed for only POS 417 or 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	426	Elements of Public Policy	Each section may cover one of the following topics: consumer protection, natural resources, criminal justice, environmental protection, science and technology, or theories of public policy. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	431	Campaigns and Elections	Examines campaigns from a multitude of perspectives including the politician, reporter, campaign strategist, and voter.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	435	Women and Politics	Focuses on the uniqueness of women in modern political systems and political thought. Emphasis may vary with instructor.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & C	
POS	439	Minority Group Politics in America	Role of minority groups in American politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & C	
POS	442	American Political Thought	Political theories and movements from the colonial period to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	443	Topics in Contemporary Political Theory	Major problems and theories in contemporary political thought.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	445	Asian Political Thought	Contemporary political ideas and theories in selected Asian countries, including the impact of Marxist and non-Marxist theories on revolutionary processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	451	China, Japan, and the Koreans	Comparative analysis of the political modernization experiences of China, Japan, and the two Koreas, focusing on their differing reactions to the West.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	452	China	Background of the Communist revolution, political processes, and developmental problems in China from a comparative perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	453	South America	Political institutions, process, and developmental problems of South American states examined through comparative analysis, novels, and poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	454	Mexico	Mexican federal, state, and local governmental institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	455	Central America and the Caribbean	Governmental institutions, political processes, and developmental problems of the nation-states and dependent areas of Central America and the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	459	South and Southern Africa	Post-apartheid South African government and politics; South Africa and the southern African region; regional security and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	463	Inter-American Relations	Diplomatic relations among the Latin American states. Development of U.S. foreign policy toward Latin America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	465	International Organization and Law	History, practical political significance, and future of international institutions, transnational regimes, and international law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	467	International Security	Examines issues affecting the international security of states and peoples, e.g., military, economic, technological, environmental, and demographic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	468	Comparative Asian foreign Policies	Foreign policies of the Asian states, emphasizing their security relations and movements toward regionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	471	Constitutional Law I	Development of the U.S. Constitution as reflected in decisions of the Supreme Court; jurisdiction and organization of the federal courts; judicial review; separation of powers; federalism; the commerce clause; national taxing and spending power; state police power.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	472	Constitutional Law II	Development of the U.S. Constitution as reflected in decisions of the Supreme Court; due process; equal protection of laws; individual rights; civil liberties.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	473	Religion, Violence, and Conflict Resolution	Focuses on the ambiguous, often confounding role of religion in local and global conflict and the pursuit of peace.	N	LEC	N	GRD	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only REL 482, JUS 473 or POS 473
POS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	485	Political Economy	Problems, policies, and possibilities of various political-economic systems and the interrelationship of capitalism, socialism, and democracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	486	International Political Economy	Contending approaches to historical and contemporary issues of international political economy, including global welfare, equality, ecology, and peace.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
POS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6	L	Pre-requisites: Must be an Honors student
POS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
POS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-7	L	
POS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
POS	501	Methods of Political Science	Problems of method and knowledge in political science, strategies of political inquiry, and issues in philosophy of social science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Political Science student
POS	502	Philosophy of Political Inquiry	Problems of knowledge and method in political science, with attention to both empirical and evaluative analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	2-3		
POS	503	Empirical Political Inquiry	Research methods and techniques of the discipline, emphasizing empirical foundations and analytic methods employed in subfields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Political Science student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	530	American Politics	Examines major debates in the study of American political processes and institutions. Covers parties, media, elections, public opinion, interest groups, and the three branches of government.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	545	Themes in Political Thought	Examines a particular theme or problem in political thought from both a historical and contemporary perspective. May be repeated with approval of the director of graduate studies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	550	Comparative Politics	Surveys major approaches across topical areas such as revolutions, authoritarianism, policy processes, interest groups, and electoral politics. Focus varies with instructor.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	560	International Relations	Surveys major theoretical approaches and debates in international relations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	563	Comparative Asian Security Policies	Analyzes domestic and international constraints, belief systems, and economic components in security decisions by major powers and Asian nations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	601	Advanced Experimental Research	Introduces experimental and quasi-experimental research designs in political research, including lab techniques and topics in the analysis of variance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	602	Advanced Survey Research	Presents design and conduct of political surveys, including sampling, instrument design, scaling, and statistical and graphical analysis of survey data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	603	Polimetrics I	Introduces theory and practice of linear regression analysis. Provides skills to read, understand, and evaluate professional literature using regression analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	604	Polimetrics II	Applies quantitative techniques to research topics producing publishable papers through exposure to time-series, logit and probit, and simultaneous equations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	606	Qualitative and Textual Analysis	Method and theory for the analysis of qualitative materials, systematic approaches for case studies, content analysis, critical analysis of texts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	635	State Politics and Public Policy	Introduces comparative state policy emphasizing policy or performance differences among the states and the reasons for these differences.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		

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POS	636	Electoral Behavior	Introduces fundamental concepts of electoral behavior. Emphasizes presidential elections and examines why people vote and how their votes are determined.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	638	Law and Politics	Emphasizes research into such topics as constitutional law, women and the law, American legal system, judicial process, and judicial selection.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	651	Politics of Change and Development	Examines contending approaches to national, social, and political change.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	660	The Modern World System	Theoretically driven, historical analysis of the organization and operation of the international political economy since the 16th century.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	661	The State	Examines theories of state, state-society relations, and interstate politics emphasizing questions of sovereignty, territoriality, violence, representation, democracy, and change.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	662	International Organization	History, practical political significance, and future of international institutions, transnational regimes, and other approaches to international organization.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	664	War, Peace, and Conflict Processes	Systematic analysis of the causes of war, the preconditions for peace, and approaches to the resolution of conflict.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	665	foreign Policy Theory	Examines foreign policy theory and methods. Development and critique of research designs analyzing foreign policy processes within and among nations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-15		
POS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-15		
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	340	History of Political Philosophy I	Western political philosophers and their theories to the 17th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU & H	
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Students may not sign up for POS 110 who have received a D or better in POS 310
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Students may not sign up for POS 110 who have received a D or better in POS 310
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	

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POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	210	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	220	Political Issues and Public Policy	Contemporary social problems and political issues, particularly development of public policy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	230	Current Issues in National Politics	Major issues facing national governments in the domestic field.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
POS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
POS	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & G	
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110
POS	325	Public Policy Development	Examines one or more aspects of public policy development including agenda setting and policy formulation, implementation, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	336	Voters in America	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	346	Problems of Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
POS	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	351	Democratization	Examines the consolidation of democracies in postauthoritarian and postcommunist settings (e.g., Latin America, Eastern Europe, Asia).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	360	World Politics	Theory and practice of statecraft as applied to selected issues, regions, or eras. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	364	National Security, Intelligence, and Terrorism	Theoretical and empirical assessment of U.S. national security policy in the post-cold war era.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
POS	417	Arizona Political System	Contemporary political problems within the context of Arizona's constitutional, political, and social frameworks. Meets the Arizona Constitution requirement for teacher certification. Credit is allowed for only POS 417 or 311.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	485	Political Economy	Problems, policies, and possibilities of various political-economic systems and the interrelationship of capitalism, socialism, and democracy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PPE	550	Physical Education for the Elementary School	Scope and values of physical education in elementary schools. Methods, materials, and practices in teaching for primary through upper grades. Credit is allowed for only PPE 550 or 350. fee	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	555	Physical Education in the Secondary School	Current trends and theories such as elective programs, coed classes, legal issues, contract teaching, curriculum, and administration. Credit is allowed for only PPE 555 or 355. fee	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	560	Adapted and Inclusive Physical Education	Teaching individuals with disabilities physical skills and activities. Credit is allowed for only PPE 560 or 360.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	565	Teaching Physical Activity Concepts	Teaching physical activity concepts in PE settings. Analyzes and critiques state and national physical education standards. Credit is allowed for only PPE 565 or 365.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	570	Research on Teacher Education in Physical Education	Discusses current research on teacher education across fields, with an emphasis on physical education pedagogy. Credit is allowed for only PPE 570 or 370.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	575	Coaching Methods for Youth Sports	Scope and values of coaching K-12. Methods, materials, and practice in coaching philosophy. Best practices and activities for grades K-12. Credit is allowed for only PPE 575 or 375.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	576	Research on Curriculum in Physical Education	Discusses and applies research findings on curricular models for physical education and physical activity in school settings and beyond.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites:Completed COE 501 with a grade of D or better or be currently enrolled

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PPE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	585	Research on Teaching in Physical Education	Contemporary research and theory on teaching across fields, with an emphasis on physical education pedagogy; provides a practical research experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	593	Applied Project		Y	LEC	Y	CNV	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
PPE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
PPE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		

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PPE	210	Teaching Fitness Activities for K-12 Students	Practical application of biomechanical, physiological, psychological, and learning principles in the analysis of skill acquisition and performance. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	215	Teaching Team Sports	Practical application of biomechanical, physiological, psychological, and learning principles in the analysis of skill acquisition and performance. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	220	Teaching Lifetime Activity K-12	Participating in and teaching sequenced activities K-12.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	225	Teaching Cooperative and Initiative Games	Participating in and teaching sequenced adventure-based activities.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
PPE	350	Physical Education for the Elementary School	Scope and values of physical in elementary schools. Methods, materials, and practices in teaching for primary through upper grades. Credit is allowed for only PPE 350 or 550. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Students who have credit for PPE 550, may not enroll in PPE 350
PPE	355	Physical Education in the Secondary School	Current trends and theories such as elective programs, coed classes, legal issues, contract teaching, curriculum, and administration. Credit is allowed for only PPE 355 or 555. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	360	Adapted and Inclusive Physical Education	Teaching individuals with disabilities physical skills and activities. Credit is allowed for only PPE 360 or 560.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	365	Teaching Physical Activity Concepts	Teaching physical activity concepts in PE settings. Analyzes and critiques state and national physical education standards.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
PPE	370	Research on Teacher Education in Physical Education	Discusses current research on teacher education across fields, with an emphasis on physical education pedagogy. Credit is allowed for only PPE 370 or 570.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
PPE	375	Coaching Methods for Youth Sports	Scope and values of coaching K-12. Methods, materials, and practice in coaching philosophy. Best practices and activities for grades K-12. Credit is allowed for only PPE 375 or 575.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	474	Field Experience in Physical Education	Analyzes course content in an elementary/secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction and assessment. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
PPE	480	Professional Seminar for Physical Education	Methods of instruction, organization, and presentation of appropriate content in elementary and secondary physical education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
PPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
PPE	495	Research on Teaching in Physical Education	Contemporary research and theory on teaching across fields with an emphasis on physical education pedagogy; provides a practical research experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PRM	120	Leisure and the Quality of Life	Conceptual foundations for understanding the role of leisure in the quality of life. Social, historical, psychological, cultural, economic, and political foundations of play, recreation, and leisure.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
PRM	150	Outdoor Pursuits	Theories and practical applications related to outdoor recreation pursuits. Interdisciplinary approach to wilderness issues and philosophies, culminating in an outdoor experience.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
PRM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	210	Community Services and Professions.	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Prerequisite: Parks and Recreation Management or Recreation (management concentration) student; Pre- or corequisite: PRM 120 or REC 120 with a C or better if completed
PRM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: REC 120 (or PRM 120) with a C or better if completed

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PRM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre- or Co-requisite: PRM 120 or REC 120 with a C or better if completed
PRM	303	Program Planning	Foundations for effective program planning in varied leisure delivery systems.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: NLM 160 or PRM 120 with C or better
PRM	304	Recreation Planning and Facility Development	Surveys development and management of public, private, and commercial recreation areas and facilities with a focus on meeting program needs.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Parks & Rec Mgmt, Rec & Tourism or Nonprofit Leadership & Mgmt student; Minimum 2.50 cumulative gpa; minimum 45 hours; MAT 142 or higher; PRM 210 (or NLM 210, TDM 210 or REC 210) with C or better; ENG 102 with C or better
PRM	315	Community Recreation Systems	Explores and assesses community recreation delivery systems in the United States.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM120 (REC120) with C or better
PRM	340	Outdoor Survival	Interdisciplinary approach to outdoor survival, including attitudes, psychological stress, physiological stress, preparation, hypothermia, navigation, flora, and wildlife.	N	FLD	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	364	Foundations of Therapeutic Recreation	Overview of therapeutic recreation and its concepts, practices, service models, and settings. Explores the provision of recreation and treatment services for individuals with disabilities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
PRM	368	Sports Management	Introduces concepts of sports management in varied leisure delivery systems.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	370	Natural Resource Recreation Planning and Management	Introduces outdoor recreation resource delivery systems; history of wilderness and outdoor recreation resources; the role of outdoor recreation in society; outdoor recreation agencies; related environmental issues.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisite: Must have completed 45 or more earned hours
PRM	380	Wilderness and Parks in America	Examines the American Conservation Movement and the relationships between the environment and recreation behavior.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB & H	
PRM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	400	Processes and Techniques in Therapeutic Recreation	In-depth analysis of theoretical and philosophical approaches to therapeutic recreation practice with emphasis on various facilitation techniques used in therapy.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have completed PRM364 or REC364 with a grade of C or greater or be currently enrolled
PRM	401	Management of Parks and Recreation Services	Basic principles of administration and their application in successful administrative situations. Analyzes administrative function, structure, and policies.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM or REC student; must have at least 2.5 ASU cumulative GPA; 45 or more semester hours; ENG 102 and PRM 210 (or REC 210) with C or better or currently enrolled; MAT 142 or higher with D or better or currently enrolled
PRM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: PRM 304 or PRM 401 (or REC 462 or REC 440) with a C or better if completed
PRM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre- or Co-requisite: PRM 304 or PRM 401 (or REC 462 or REC 440) with a C or better if completed
PRM	406	Program Design and Evaluation in Therapeutic Recreation	In-depth analysis of assessment, treatment planning, program implementation, documentation, and evaluation strategies employed in therapeutic recreation practice.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-or Co-requisites: PRM 364 (or REC 364) and PRM 400 (or REC 400) with C or better if completed
PRM	424	Recreation Program Management	Provides nonmajors with an in-depth look at recreation program management in a variety of settings with diverse groups.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: NLM 160 or PRM 120 (REC 120) with C or better or currently enrolled; Not open to Parks & Recreation Management, Recreation (Management concentration) or Nonprofit Leadership & Management majors.
PRM	451	Grant Writing for Human Service Professionals	How to increase grant funding: creating fundable ideas, identifying sponsors, following guidelines, writing effectively, constructing budgets, responding to reviewers.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	460	Assessment and Documentation in Therapeutic Recreation	In-depth study of the therapeutic recreation assessment process, including examination of interview techniques, assessment instruments, treatment planning, outcomes, evaluation, research, and documentation.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 364 (REC 364) and PRM 400 (REC 400) with C or better or currently enrolled
PRM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Pre-requisites: Parks and Recreation or Recreation (Management concentration) student; PRM 402 (REC 482) and PRM 403 (REC 499 Pre Internship Workshop) with C or better
PRM	470	Environmental Interpretation and Education	Introduces park interpretation and environmental education that includes theories, principles, and techniques.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 380 with C or better
PRM	475	Entrepreneurial Recreation and Tourism	Explores basic business principles and innovative processes involved in starting a small business in the commercial recreation and tourism industry.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or REC 120 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PRM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
PRM	486	Special Events Management	Principles of programming and managing special events for diverse populations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
PRM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
PRM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	CS	Pre-requisites: PGS 101 with a grade of C or greater; Must have completed one of the following with a grade of C or greater or in progress: MAT 119, 170, 242, 243, 251, 260, 261, 262, 270, 271, 272, 274, 290 or 291
PSY	290	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	4.	L or SG	Pre-requisite: Must have earned C or better or be currently enrolled in either JUS 302, POS 401, PSY 230, QBA 221, SOC 395, or STP 226
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	325	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	CS	
PSY	360	Cognitive Science	Examines cognition from the varied perspectives of philosophy, linguistics, psychology, computer science (artificial intelligence), and neuroscience.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	390	Experimental Psychology	Continuation of concepts in PSY 290, with emphasis on multifactor designs and programmatic sequence of experiments.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	Pre-requisite- Mus have earned C or better in PSY 290 or currently enrolled
PSY	399	Supervised Research		Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-3		
PSY	437	Human Factors	Emphasizes human factors in high-technology systems. Specific topics include systems development, systems analysis techniques, displays, and controls.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	
PSY	438	Human-Computer Interaction	Theories, methods, and findings concerning the usability of computer systems and the design of effective user interfaces.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	439	Training and Skill Acquisition	Theories, methods, and findings concerning the acquisition of skilled performance and the design of effective training systems.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	440	Industrial/Organizational Psychology	Examines personnel selection, performance assessment, job and workplace design, job satisfaction, organizational behavior, management systems, and industrial safety.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	448	Human Factors in Transportation	Examines human performance and human-machine design issues in aviation and ground transportation.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	449	Human Factors in Sport	Examines how psychological principles can be applied to enhance the performance of athletes and coaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		

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PSY	477	Applied Psychology Capstone Experience	Applied psychology from a systems perspective. Requires a report based on research and/or applied work as a culminating experience.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-6		
PSY	492-E	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-6		
PSY	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-4		
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-3		
PSY	528	Sensation and Perception	Principles of sensory and perceptual processes, emphasizing research literature.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	530	Intermed Statistics	One-way and factorial designs, contrasts, post-hoc tests, probing of interactions, mixed designs, power, computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	531	Multiple Regression in Psychological Research	Multiple regression and correlation, hierarchical regression, interactions, curvilinear relationships, categorical predictors, ANOVA in regression, regression diagnostics, regression graphics.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	560	Advances in Theoretical Psychology	Covers new empirical and theoretical work in psychology with emphasis on its applicability.	N	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	561	Methods in Applied Psychology	Methods of particular value in applied settings, including usability testing, prototyping, and use of computers in data collection and analysis. May be repeated for credit up to 9 hours.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	562	Advanced Human Factors	In-depth study of the issues, methods, and findings in industrial and organizational psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	563	Advanced Industrial and Organizational Psychology	In-depth study of the issues, methods, and findings in industrial and organizational psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-4		
PSY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		Pre-requisites: Freshman; 25 or less total earned hours
PSY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	CS	Pre-requisites: PGS 101 with a grade of C or greater; Must have completed one of the following with a grade of C or greater or in progress: MAT 119, 170, 242, 243, 251, 260, 261, 262, 270, 271, 272, 274, 290 or 291
PSY	231	Honors Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology for honors students. Lab includes learning to use statistical software packages.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.	CS	Pre-requisites: Barrett Honors student; MAT 119, MAT 170, MAT 242, MAT 251 or higher with C or better; PGS 101 with C or better

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PSY	290	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.	L or SG	Pre-requisites: ENG 101 with C or better or currently enrolled; PSY 230 or one of the following courses with a C or better or currently enrolled: ECN 221, JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	325	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	CS	Pre-requisites: Must have completed one of the following courses with a grade of C or greater or be currently enrolled: JUS 302, POS 401, PSY 230, QBA 221, SOC 390, SOC 395 or STP 226
PSY	390	Experimental Psychology	Continuation of concepts in PSY 290, with emphasis on multifactor designs and programmatic sequence of experiments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	399	Supervised Research		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		
PSY	420	Analysis of Behavior	Research, applications, and philosophy of the analysis and control of human behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 and 320 with C or better
PSY	422	Motor Control in Special Populations	Discusses principles of motor control theories and related practical applications for certain special developmental populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed KIN 345 with a grade of C or greater or be currently enrolled
PSY	424	Genetic Psychology	Introduces the concepts, methodologies, and findings of behavioral genetics for Psychology majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 with C or better
PSY	425	Biological Bases of Behavior	Critical study of physiological psychology, e.g., brain mechanisms underlying motivation, learning.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	
PSY	426	Neuroanatomy	Structure and function of mammalian brain, including sheep brain dissection.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.		Pre-requisites: Must have completed PSY 325 with a grade of C or greater or be currently enrolled
PSY	427	Immunoneuropsychology: Research Foundation	Mind and the immune system's mutual influence (including neuroimmunologic diseases), with an emphasis on the molecular and cellular mechanisms involved.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	434	Cognitive Psychology	Human organism as a processor of information, from perception to cognition. Abstract concepts, semantic memory, attention, and mental imagery.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 323 or PSY 324 with C or better
PSY	437	Human Factors	Emphasizes human factors in high-technology systems. Specific topics include systems development, systems analysis techniques, displays, and controls.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 with C or better
PSY	470	Psychopharmacology	Basis of drug action at physiological and behavioral levels. Psychological and medical applications and limitations of drugs used in the treatment of mental illness.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 325 AND one of the following: BIO 181, 182, 187, 188, 201, 202, ZOL 201 or ZOL 202 AND one of the following: CHM 113, 114, 115, 116, 117 or 118, with a grade of C or greater or be currently enrolled
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Psychology	1-6		Pre-requisites: Must be an Honors student
PSY	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Psychology	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-6		Pre-requisites: Must be an Honors student
PSY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-7		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-3		
PSY	501	Supervised Teaching	Experience in and examination of perspectives on teaching undergraduate psychology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	506	Survey of Research in Environmental Psychology	Major topics and paradigms in the study of person-environment relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	512	Advanced Learning	Principles and theories of learning, emphasizing research literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	524	Advanced Physiological Psychology	Contributions of physiological processes and brain function to fundamental behavioral processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	528	Sensation and Perception	Principles of sensory and perceptual processes, emphasizing research literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	530	Intermed Statistics	One-way and factorial designs, contrasts, post-hoc tests, probing of interactions, mixed designs, power, computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	531	Multiple Regression in Psychological Research	Multiple regression and correlation, hierarchical regression, interactions, curvilinear relationships, categorical predictors, ANOVA in regression, regression diagnostics, regression graphics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	532	Analysis of Multivariate Data	Matrix algebra for multivariate procedures, component and factor analysis, canonical and discriminant analysis, classification, MANOVA, logistic regression, hierarchical linear model.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	533	Structural Equation Modeling	Path analysis; exploratory and confirmatory factor analysis; recursive and nonrecursive latent variable models; mean and covariance structures; latent growth models.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	534	Psychometric Methods	Theory and practice of psychological measurement using classical and modern test theories. Reliability assessment, test validation, test construction, test usage.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	535	Cognitive Processes	Theoretical/empirical treatment of the human organism as a processor of information, including abstraction, memory structure, problem solving, and thinking.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	536	Statistical Methods in Prevention Research	Statistical methods used in prevention research including epidemiological methods, logistic regression, program effect estimation, estimation, and mediation analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	537	Longitudinal Growth Modeling	Growth modeling methodology to describe individual variation in development over time. Employs multilevel and structural equation modeling frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	538	Advanced Structural Equation Modeling	Mean and covariance structure analysis. Includes multiple-group modeling, two-level hierarchical modeling, longitudinal growth modeling, analysis with categorical outcomes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	541	Research in Cognitive Development	Theoretical and empirical issues in the study of children's knowledge and cognitive processes. Comparison of research in Piagetian and other traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	542	Social Development	Reviews and critiques major issues in the area of social development. Covers theory, research, and content.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	550	Advanced Social Psychology	Theory and research concerning interpersonal perception, decision making, attitude formation and change, group processes, social motivation, and interaction processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	551	Advanced Social Psychology	Continuation of PSY 550.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	553	Social Influence	Researches literature relevant to attitude formation and change, conformity, obedience, power, compliance, and altruism and others.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	555	Experimental and Quasi-Experimental Designs for Research	Reviews research techniques. Analyzes lab and field research; applications to specific topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	569	Advanced Study of Personality	Personality as a theoretical concept in psychology, including definitional problems, behavioral and traditional approaches, the measurement of personality, and current research issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	572	Psychological Assessment	Theory and research on assessment of personality, psychopathology, and intelligence; construction of psychological assessment instruments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	573	Psychopathology	Theory and research relating to the contribution of psychological, social, physiological, and genetic factors to the development and persistence of abnormal behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	574	Psychotherapy	Detailed survey of the theoretical and empirical literature relating to verbal psychotherapy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	578	Developmental Psychopathology	Covers major theories and research related to the development of psychological disorders of childhood and adolescence.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	582	Community Psychology	Community systems, intervention techniques, consultation models, history and current status of community mental health movement, and conceptualization of the roles of community psychologists in social system intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

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PSY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	624	Clinical Neuroscience	Examines the biological underpinnings of psychological disorders at the molecular, cellular, and system levels (e.g., schizophrenia, depression, anxiety).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-15		
PSY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		
PSY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Psychology	1-15		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: MAT 119, 170, 210, or 270 with a D or better or currently enrolled; PGS 101 with a C or better or currently enrolled
PSY	290-W	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SG	Pre-requisites:ENG 102, 105 or 108 with a C or better or currently enrolled; PSY 230 with a C or better or currently enrolled
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	325-W	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have completed PSY290 with a grade of D or greater or be currently enrolled.

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PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	369	Biology of Human Sexuality	Biology of Human Sexuality	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with a C or better or be currently enrolled AND completed one semester of Biology with a D or better or be currently enrolled.
PSY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PSY	425	Biological Bases of Behavior	Critical study of physiological psychology, e.g., brain mechanisms underlying motivation, learning.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: must have completed PSY325 with a grade of D or greater or be currently enrolled and specific plans only.
PSY	470	Psychopharmacology	Basis of drug action at physiological and behavioral levels. Psychological and medical applications and limitations of drugs used in the treatment of mental illness.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 290 and PSY 325 with a C or better or currently enrolled
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
PSY	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PSY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-requisite: PGS 399 with C or better
PSY	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PUB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		Pre-requisites: Freshman; maximum 25 hours
PUB	501	Introduction to Scholarly Publishing	Introduces the purpose, organization, and operation of scholarly publishing, including its history, societal role, and current issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
PUB	502	Scholarly Editing	Publishing procedures, proofreading, and manuscript editing of scholarly books, textbooks, and scholarly journals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	503	Advanced Scholarly Editing	Advanced manuscript editing, acquisitions, developmental editing, and indexing of scholarly books, textbooks, and scholarly journals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	510	Research in Scholarly Publishing	Individual or group research projects on issues in scholarly publishing, including legal, economic, design, technological, and related topics.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	580	Practicum		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PUB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		

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PUB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PUB	592	Research		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PUB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	THE	N	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
PUP	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & H & G	
PUP	190	Sustainable Cities	Introduces technological, social, and cultural principles and innovations for cities under the notion of sustainability and sustainable development within the global, regional, and local contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(HU or SB) & G	
PUP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	200	Planned Environment: Cities in Cinema	Environmental, aesthetic, social, economic, political cultural, and other factors influencing global cities seen through films from around the world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & H & G	
PUP	261	Urban Planning I	Planning communication: communication techniques for urban planning and landscape architecture communication. Credit is allowed only for PUP 261 or PLA 261.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	262	Urban Planning II	Reading the landscape: observing, experiencing, and graphically expressing the symbolic and aesthetic significance of natural landscapes.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	301	Introduction to Urban Planning	Theoretical and practical aspects of city planning. Interrelationships among physical planning, environment, government, and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	
PUP	322	Computers in Planning	Planning methods using Geographic Information Systems, database, spreadsheet, image manipulation, and desktop publishing computer software packages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	361	Introductory Urban Planning Studio	Basic site planning and design techniques. Collection and analysis of information and basic planning research. Report writing and public presentation skills. Fee.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Must be Urban Planning BSD student
PUP	362	Urban Planning III	Neighborhood planning: local community plan making; urban development and neighborhood improvement. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Must be Urban Planning BSD plan; Must have completed PUP 361 with a grade of C or greater or be currently enrolled
PUP	363	History of Planning	Historical overview of western urban and regional planning and planning theory, focusing on the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following students: Design Studies BA, Urban Planning BSD or Housing & Urban Developmnt BSD
PUP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	410	Public Participation in Planning	Theory and practice of public participation in planning. Examines and critiques participation techniques and roles of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 301 with a C or better; must be a BSP student; must co-register in PUP 432, and PUP 433
PUP	412	History of the City	The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(L or HU) & H	Pre-requisites: Must be either: Urban/Environmntl Planning MUEP, Pre-Urban Planning, Urban Planning BSD, Pre-Housing & Urban Developmnt , Housing & Urban Developmnt BSD, Design Studies BA, Landscape Architecture BSLA or Architectural Studies BSD
PUP	420	Theory of Urban Design	Analyzes the visual and cultural aspects of urban design. Theories and techniques applied to selected study models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU	Pre-requisites: Must be one of the following students: Urban/Environmntl Planning MUEP, Urban Planning BSD or Housing & Urban Developmnt BSD
PUP	424	Planning Methods	Methods for urban planning research. Emphasizes research design, quantitative and qualitative methods, survey research, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban/Environmntl Planning MUEP, Urban Planning BSP or Housing & Urban Developmnt BSD; PUP 301 with C or better

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PUP	425	Urban Housing Analysis	Nature, dimensions, and problems of urban housing, government policy environment, and underlying economics of the housing market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following students: Urban Planning BA, Landscape Architecture BSLA, Architectural Studies BSD or Housing & Urban Developmnt BSD
PUP	430	Transportation Planning and the Environment	Overview of transportation planning from the perspective of land use planning, economic development, environmental planning, and social needs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	432	Planning and Development Control Law	Case studies on police power, eminent domain, zoning, subdivision controls, exclusion, preservation, urban redevelopment, and aesthetic and design regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following plans: Urban/Environmntl Planning MUEP, Urban Planning BSD or Housing & Urban Developmnt BSD
PUP	433	Zoning Ordinances, Subdivision Regulations, and Building Codes	Analyzes zoning ordinances, subdivision regulations, building codes, and other planning implementation techniques relative to local development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be an Urban/Environmental Planning, Urban Planning or Housing & Urban Development student
PUP	434	Urban Land Economics	Interaction between space and economic behavior. Examines the use and value of land through economic theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be either Urban/Environmntl Planning MUEP or Urban Planning BSD student
PUP	436	City Structure and Planning	Political structure and organization of government as it relates to planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be either: Urban/Environmntl Planning MUEP, Pre-Urban Planning, Urban Planning BSD, Pre-Housing & Urban Developmnt or Housing & Urban Developmnt BSD; Must have completed PUP 301 with a grade of C or greater or be currently enrolled
PUP	441	Economic Concepts and Environmental Planning	Overview of environmental and ecological economics and how their concepts and tools are used in dealing with environmental planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisite:PUP 301 with a grade of C or better
PUP	442	Environmental Planning	Environmental planning problems, including floodplains, water quality and quantity, solid and hazardous waste, air quality, landslides, and noise.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban/Environmntl Planning MUEP, Urban Planning BSP or Housing & Urban Developmnt BSD; PUP 301 with C or better
PUP	444	Preservation Planning	History, theory, and principles of historic preservation. Emphasizes legal framework and methods practiced.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following Academic Levels: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	445	Women and Environments	Examines the role women play in shaping the built environment; ways built/natural forms affect women's lives. Focuses on contemporary U.S. examples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	C	Pre-requisites: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	452	Ethics and Theory in Planning	Ethics and theory of professional planning practice in urban and regional communities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	Pre-requisites: Must be one of the following plans: Urban/Environmntl Planning MUEP, AUrban Planning BSD or Housing & Urban Developmnt BSD
PUP	461	Urban Planning IV	Comprehensive planning: collection and analysis of economic, social, and environmental data relevant to urban planning; development of land-use plans. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Must be Urban Planning BSD student; Must have completed PUP 362 with a grade of C or greater or be currently enrolled
PUP	462	Advanced Urban Planning Studio	Comprehensive planning. Synthesis of complex data- and community-based analyses. Advanced report writing and public presentation skills. Fee.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Must be Urban Planning BSD student; Seniors only; Must have completed PUP 361 with a grade of C or greater
PUP	465	New Urbanism	History, theory, principles and practice of New Urbanism, including current critiques and counter-critiques of both movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 301 with a grade of C or better
PUP	475	Environmental Impact Assessment	Criteria and methods for compliance with environmental laws; development of skills and techniques needed to prepare environmental impact statements/assessments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Must be Urban Planning BSP student
PUP	485	International Field Studies in Planning	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12	G	
PUP	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
PUP	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
PUP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		Pre-requisites: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PUP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	501	The Idea of Planning	Comprehensive review of planning profession within a political, governmental, multicultural, and gender framework.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	510	Citizen Participation	Theory and practice of citizen participation in planning. Examines and critiques participation techniques and roles of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following students: Urban/Environmntl Planning MUEP, Urban Planning BSD or Housing & Urban Devlpmnt BSD
PUP	515	International Planning and Development	Introduces globalization, international development, international planning practices and policies, urbanization and urban and regional planning in developing nations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	516	International City Design	Comparative exploration of the physical design and structure of international cities and the social, economic, and cultural forces shaping them.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	520	Planning Theories and Processes	Reviews past and current theoretical developments related to social change perspectives, the role and ethics of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	524	Planning Methods I	Methods for urban planning research. Emphasizes research design, demographic analysis, forecasting, and survey research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	525	Urban Housing Analysis	Nature, dimensions, and problems of urban housing, government policy environment, and underlying economics of the housing market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	526	Historic Preservation Planning Practice	In-depth study of practical applications of historic preservation theory and methods. Overview of the professional work of the preservation field.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
PUP	527	Preservation Planning		N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites:PUP 501 with a grade of C or better
PUP	531	Planning and Development Control Law	Case studies on police power, eminent domain, zoning, subdivision controls, exclusion, preservation, urban redevelopment, and aesthetic and design regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	532	Advanced Urban Planning Law	Advanced study on selected issues in planning law, such as urban design controls, exclusionary practices, compensable regulation, and tax policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	535	Water Law and Planning	In-depth study of legal materials providing substantive knowledge of water law, water management issues, and land use planning options.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	541	Economics of Environmental Planning	Application and limitations of economics in environmental planning and policy making in the United States and internationally.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	542	Environmental Administration and Planning	Environmental administration of policies and their relationship to environmental planning practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	544	Urban Land Use Planning	Theory and methods of urban land use planning, including the rational planning process, comprehensive, functional, and neighborhood plans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	546	Urban Design Policy	Advanced study of local, state, and federal urban design policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	547	Gender, Activism and the Built Environment	Explores issues of gender in the built environment. Includes traditional attitudes toward gender underlying the physical form and continuing impacts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	548	Planning for Sustainable Communities	Theory and applications connecting sustainability sciences and practice to urban environmental planning. Sustainable urban development, restoration, and preservation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	550	Urban Transportation Planning and Policy	Examines transportation planning from the perspectives of land use planning, economic development, environmental planning, and social needs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PUP	551	Sustainable Transportation Planning	Discusses the sustainability aspects of transportation planning. Emphasizes nonmotorized transportation, facilities, and public health.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	561	Urban Design Studio	Current urban form and urban landscape design problems within the Phoenix-centered region.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	562	Advanced Theory of Urban Design	Study of urban design practice and underlying social, political, and environmental issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	563	The Politics of Urban Space and Design	Advanced seminar critically examines major intellectual traditions investigating urban form, the production of urban space, and socio-spatial practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	572	Planning Studio I: Data Inventory and Analysis	Comprehensive planning workshop dealing with real community problems. Focuses on the data gathering and analysis steps of the planning process. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	574	Planning Studio II: Options and Implementation	Comprehensive planning workshop dealing with real community problems. Focuses on the development of options, plan making, and plan implementation. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	575	Environmental Impact Assessment	Criteria and methods for compliance with environmental laws; develops skills and techniques needed to prepare environmental impact statements/assessments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	576	GIS and Planning	GIS as a tool to address large, multifaceted planning problems.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisite: Urban/Environmentl Planning MUEP student
PUP	585	International Field Studies in Planning		N	FLD	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		Pre-requisites: Urban and Environmental Planning graduate student
PUP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PUP	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	622	Planning Methods II: Quantitative Planning Analysis	Methods and models used as the basic quantitative techniques of urban, regional, and environmental planning and policy analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 524 with C or better
PUP	642	Land Economics	Land use and locational impact of economic activity and the urban real property market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	644	Public Sector Planning	Urban fiscal problems and public goods provision in state and local governments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
QBA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-3		
QBA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	221	Statistical Analysis	Methods of statistical description. Applies probability theory and statistical inference in business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: Must have completed one of the following courses with a grade of D or greater or be currently enrolled: MAT 119, MAT 211 or MAT 271
QBA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6		
QBA	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6	L	Pre-requisites: Must be an Honors student
QBA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-6		
QBA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-7		
QBA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-3		

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QBA	502	Managerial Decision Analysis	Fundamentals of qualitative and quantitative analysis to aid management decision making in a competitive and uncertain environment.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: MBA student
QBA	508	Product and Service Innovation	Develops strategies for innovation in products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		W.P. Carey Graduate Students only
QBA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Graduate Students only (degree and non-degree seeking)
QBA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Graduate Degree Seeking Students only
QBA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-12		
QBA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: W.P. Carey Graduate Degree Seeking Students only
QBA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
QBA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-15		
RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
RDG	510	Teaching Writing in the Elementary Classroom	Develops rationale, theory, and related practices for teaching writing in K-8 classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	512	Theoretical Foundations in Language and Literacy	Introduces theoretical lenses useful in understanding issues in language and literacy education and research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	521	Assisting the Struggling Adolescent Reader	Familiarizes teachers with literacy interests, practices, methods, strategies, and resources to develop and enhance students' enjoyment of learning with texts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	530	Research Issues in Literacy	For graduate students interested in research on major issues related to literacy instruction. Seminar activities include reviewing quantitative and qualitative methods and analyzing literacy research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	533	Literacy in Secondary BLE/ESL Settings	Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	534	Literacy in Science and Math		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	2-3		
RDG	550	Practicum Experiences in Elementary and Secondary Reading	Practicum experience utilizing assessment and instructional techniques for classroom settings. See RDG 557 for State of Arizona reading endorsement.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	556	Assessment and Procedures in Elementary and Secondary Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
RDG	557	Advanced Elementary and Secondary Reading Practicum	Advanced practicum experience utilizing specialized reading and other assessment and instruction techniques for classroom and clinic settings. Lab sections. Recommended for State of Arizona reading endorsement. May be taken concurrently with RDG 556.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	565	Literature for Latina and Latino Children and Adolescents	Selects, analyzes, and utilizes literature for Hispanic and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	581	Literature-Based Reading Programs		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	596	Gender, Culture, and Literacies	Influence of gender and culture on written, oral, and post-typographical texts.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	630	Research in Literacy	For advanced graduate students interested in applied research problems, literature of literacy instruction, and major issues related to literacy research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
RDG	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	634	Technoliteracies	Online course explores the nature of digital communications and expanding definitions of what counts as text and as literate expression.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		Pre-requisites: Must be Post Bac, Non Degree Graduate or Degree Graduate. Credit is allowed for only EDT 634 or RDG 634
RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	507-W	Content Area Reading	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must be a Post Bacc Secondary Ed or a Master of Education student in the College of Teacher Education & Leadership
RDG	512	Theoretical Foundations in Language and Literacy	Introduces theoretical lenses useful in understanding issues in language and literacy education and research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	531	Language and Literacy I	Instructional strategies for teaching reading using systematic, research-based phonics to aid decoding, vocabulary, comprehension development, writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	532	Language and Literacy II	Applies literacy strategies including instruction and diagnostic assessment, literacy lessons with adaptations for diverse learners, and extended classroom experiences.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	550-W	Practicum Experiences in Reading	Experience utilizing reading diagnostic and instructional techniques for classroom and clinic settings. Lab sections. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	556	Assessment and Procedures in Elementary and Secondary Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	556-W	Assessment Procedures in Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
RDG	581	Literature-Based Reading Programs		N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
RDG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
RDG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
RDG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RDG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	301	Literacy and Instruction in the Content Areas	Required course for all Secondary Education candidates. Introduces theory and instructional strategies for learning from text across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	301	Literacy and Instruction in the Content Areas	Required course for all Secondary Education candidates. Introduces theory and instructional strategies for learning from text across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
RDG	322	Language Literacy 1 in Elementary Schools	Instructional strategies for teaching reading using systematic research-based phonics to aid decoding; vocabulary; and comprehension development; writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student; BLE 321, EDP 323, EED 324 and EED 397 OR Special Ed student; SPE 310, SPE 320, SPE 317, SPE 322 and SPE 397 OR PDS (Professional Development School) student as appropriate
RDG	322	Language Literacy 1 in Elementary Schools	Instructional strategies for teaching reading using systematic research-based phonics to aid decoding; vocabulary; and comprehension development; writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	323	Literacy Processes in Content Areas	Principles and practices for planning subject matter units of instruction that explicitly address learning with texts across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: SED 321, SED 322 and SED 397 Pre-requisites: TEL 311, TEL 313, TEL 314, TEL 315 and BLE 312 with a C or better or currently enrolled; TEL 396 with a Y or currently enrolled; Secondary Ed student
RDG	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
RDG	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
RDG	413	Language Literacy 2 in Elementary Schools	Applies literacy strategies, including instruction and diagnostic assessment, literacy lessons with adaptations for diverse learners, extended classroom experiences.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student, EED 411, EED 412, EED 414, EED 496 OR PDS (Professional Development School) student
RDG	414	Teaching Reading and Decoding	Emphasizes teaching reading as part of an integrated classroom curriculum. Includes strategies and skills for teaching decoding (phonics), vocabulary, comprehension, study skills, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	414	Teaching Reading and Decoding	Emphasizes teaching reading as part of an integrated classroom curriculum. Includes strategies and skills for teaching decoding (phonics), vocabulary, comprehension, study skills, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
RDG	415	Teaching Phonics	Provides training in phonics instruction with the study of related research and classroom experiences as appropriate. Lecture, discussion.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisites: Initial Teacher Certification Program Admission; Co-requisites: EED 331, RDG 431, SPE 416, EED 496 and EED 433
RDG	431	Teaching Methods, Management, Strategies, and Assessment of Reading K-3 with Practicum	Examines reading processes, literacy development, comprehension, fluency skill/strategy development, assessments, management, and reading models/programs for K-3 students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; Co-requisites: RDG 415, EED 331, SPE 416, EED 496 and EED 433
RDG	432	Teaching Methods, Management, Strategies, and Assessment of Reading 4-8 with Practicum	Examines reading processes, content area literacy development, skill/strategy development, assessments, management, and reading models/programs for intermediate students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Pre-requisites: Initial Teacher Certification Program Admission; EED 433, RDG 415, EED 498, RDG 431 and SPE 416 completed with C or better or currently enrolled; EED 496 with Y or currently enrolled
RDG	440	Computer Gaming, Learning, and Literacy	Examines the principles of learning underlying well-designed video and computer games. Addresses the literacies involved in such games.	N	LEC	N	GRD	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must have a grade of C or better in CPI 111 and CPI 211

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	481	Reading Practicum		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	481	Reading Practicum		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
RDG	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
RDG	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
RDG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
RDG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RDG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RE	302	Life and Letters of Paul		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of Supply Chain Management	3.		
RE	584	Internship		Y	LEC	Y	CNV	W.P. Carey School of Business	Department of Supply Chain Management	3.		
REA	380	Real Estate Fundamentals	Real estate for the student/consumer with an emphasis on the applied aspects of each area of real estate specialization. Not open to Real Estate majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.00 and a minimum total earned hours of 56, OR be a non-degree seeking student or Graduate student
REA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		
REA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		
REA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
REA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
REA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-12		
REA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
REA	300	Real Estate Analysis	Applies economic theory and analytical techniques to real estate markets. Topics include law, finance, appraisal, market analysis, investments, development.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	331	Real Estate Finance	Legal, market, and institutional factors related to financing proposed and existing properties. Emphasizes current financing techniques and quantitative methods. Prerequisites: FIN 300; professional program business student. In addition to individual course prerequisites, nonbusiness students must have at least a 2.50 ASU cumulative GPA, a 2.50 ASU business GPA, and 56 earned semester hours to register for any upper-division business course unless otherwise noted.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
REA	401	Real Estate Appraisal	Factors affecting the value of real estate. Theory and practice of appraising and preparation of the appraisal report. Appraisal techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	441	Real Estate Land Development	Neighborhood and city growth. Municipal planning and zoning. Development of residential, commercial, industrial, and special purpose properties.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Must have completed REA 300 with a grade of D or better
REA	456	Real Estate Investments	Analyzes investment decisions for various property types. Cash flow and rate of return analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
REC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	501	Program Evaluation and Information Management	Develops skills in several areas, including evaluation, needs assessment, information and data collection, data management and analysis, computer applications, and report writing.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	502	Statistical and Data Analysis	Introduces descriptive and inferential methods used in community development, with an emphasis on nonprofit, tourism, and recreation sciences. Students gain experience using statistical software.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	502	Statistical and Data Analysis	Introduces descriptive and inferential methods used in community development, with an emphasis on nonprofit, tourism, and recreation sciences. Students gain experience using statistical software.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	530	Recreation and Tourism Service Management	Examines and applies organizational behavior, leadership, human resources, development, planning, and risk management to profession.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	552	Critical Issues in Recreation and Tourism	Examines critical research issues in the leisure, recreation and tourism fields.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	555	Theoretical Perspectives in Community Development	Reviews theoretical and empirical literature in community development with an emphasis on nonprofit, tourism, and recreation sciences.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	569	Advanced Tourism Studies	Advanced survey of tourism literature with an emphasis on relevant theories, concepts, and current research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	570	Social Aspects of Outdoor Recreation Management	Analyzes the social aspects of natural resource science, policy, and management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	579	Tourism Analysis	Examines theories and methods that govern tourist behavior and their relevance to destination development, operations, and management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		

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REC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
REC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
REC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-12		
REC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
RED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
RED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		
RED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
RED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
REL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & G	Pre-requisites:Total Earned Hours must be less than or equal to 75 Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	

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REL	202	Religion and Popular Culture	Explores various interectors between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	205	Living and Dying	Ways that religions have understood birth, sexuality, death, and the passing of generations. Examples from traditions throughout the world. Lecture, discussion.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	210	Introduction to Judaism	Beliefs, ceremonies, festivals, and institutions of Judaism emphasizing the contemporary era. Assumes no previous knowledge about Judaism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
REL	225	African American Religion	Introduces the history and development of the African American religious tradition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & G	
REL	260	Introduction to Islam	Examines Islamic beliefs, ceremonies, festivals, and institutions. Assumes no prior knowledge about Islam.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	270	Introduction to Christianity	Beliefs, ceremonies, festivals, and institutions of Christianity, emphasizing the contemporary era. Assumes no previous knowledge about Christianity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
REL	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		
REL	301	Comparative Mysticism	Comparative examination of Eastern and Western mystical traditions from antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	305	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	
REL	310	Western Religious Traditions	Religious traditions of Judaism, Christianity, and Islam, comparing their doctrinal, institutional, and ritual systems and social histories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	313	Anti-Semitism in the Media	By examination and discussion of various media, explores the phenomenon of modern anti-Semitism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
REL	314	Jewish Philosophy	The history of Jewish philosophy from its origins in the Hebrew Scriptures to postmodern expressions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102 (or 105, or 108) with a grade of C or better. Students who have credit for PHI 390 may not enroll in REL 314
REL	315	Hebrew Bible (Old Testament)	Nature, content, background, historical situation, and message of the books of the Hebrew Bible in English translation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
REL	317	Introduction to Rabbinic Judaism	Historical analysis of the thought, literature, and institutions of rabbinic Judaism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	318	Contemporary American Jewish Identities	Analyzes the complexity and diversity of the contemporary American Jewish community in religious and secular affairs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(HU or SB) & C	
REL	320	American Religious Traditions	Examines the formation, development, and interaction of major American religious traditions (indigenous, African American, Asian American, and Euro-American).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C & H	
REL	323	African American Religion: A Biographical Approach	Examines the experiences, motivations, and contributions of a number of figures associated with African American religion.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	324	Spirituals and the Blues	Multidisciplinary exploration of the African American religious and musical response to the North American diaspora experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	326	Latina/o and Latin American Religions and Cultures	Surveys the formative myths, rituals, and symbols and religious expressive cultures of U.S. Latinos and Latin Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	330	Native American Religious Traditions	Presents world views and religious thought through the art, architecture, literature, music, mythology, ritual, and folklore of representative tribes in North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & C	
REL	331	History of Native American Religious Traditions	Role of religion in Native American history, including missionization; religious adaptation; and prophetic, messianic, and religious revitalization movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & C & H	
REL	332	South American Indian Religions	Introduces the sacred stories, ceremonies, and beliefs of Native South American peoples in their historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	343	Taoism	Introduces the history, doctrines, and practices of Taoism from the mid-second century CE up to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & G & H	
REL	344	Religion and Values in Japanese Life	Japanese values expressed in the life and annual cycles of the family, local and national identities, and popular culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	345	Asian Religious Traditions	Introduces the major concepts of religious beliefs, rituals, and practices in Hinduism and Buddhism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	346	Chinese Religions	Examines the history and practices of Chinese religions with particular attention to culture, society, and history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	350	Hinduism	Studies diverse forms of Hinduism through its institutions, literature, folklore, art, and architecture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & G	

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REL	351	Buddhism	Doctrines, practices, and institutions of the Buddhist religion, emphasizing its role in the history and culture of Asian societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & G	
REL	353	Folk Religions of Korea	Introduces forms of folk religions in Korea: shamanism, village rituals, ancestor-worship, fortune-telling, geomancy, and folk elements in major traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
REL	354	Religious Traditions of Korea	Examines major religious traditions of Korea: Buddhism; Christianity; Neo-Confucianism; indigenous practices and their development through political, cultural, and social frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
REL	355	Japanese Cities and Cultures to 1800	Relations among ideas and literary, visual, and performing arts of the ancient aristocracy, medieval samurai, and early modern townspeople.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
REL	356	Buddhism in America	Examines diverse Buddhist traditions in the U.S. among Asian-American communities and converts to this religion.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled
REL	357	Theravada Buddhism in South and Southeast Asia	Examines Theravada Buddhist institutions, practices, and communities in ancient and contemporary south and southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L & G	Pre-requisites:ENG 102, (or 105, or 108) with a grade of C or better
REL	365	Islamic Civilization	Global historical survey of Islamic cultures and societies up to the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	366	Islam in the Modern World	Examines the worldwide transformations of Islamic religion, cultures, and societies in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H & G	
REL	369	Women in Islam	Examines the roles women have played through Islamic history (Middle East) and the changing discourse on gender identity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	371	New Testament	Origins and literature of early Christian communities; historical investigations of the types of oral and written tradition in the New Testament.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	372	formation of the Christian Tradition	Origins, development, and expansion of Christianity; major themes and tensions from the New Testament world to the beginning of the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	373	Women in Judaism	Studies the legal, social, and cultural status of Jewish women in various historical and contemporary societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	374	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	(L or HU) & H	
REL	375	Lost Scriptures, Lost Christianities	Wide diversity of early Christianity and its suppressed and lost texts, which have been found in modern times.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	376	Virgin Mary in History, Film, and Culture	Introduces formation and development of cult of the Virgin Mary; analyzes transformations of Mariology within historical, cinematic, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or ENG 108 with C or better. Credit is allowed for only FMS 376 or REL 376
REL	377	Religion in Russia	Examines the history of the various religious traditions of Russia and the former USSR from an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	379	Religion, Nationalism, and Ethnic Conflict	Examines the role of religion in national and ethnic conflict in the contemporary world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	380	Theology of Terror	Historical background, theological foundations, and consequences of violent Islamist movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	
REL	382	Religion, Magic, and Science	Relationship and conflict among religion, magic, and science in the West from antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	L or HU	
REL	383	Origins, Evolution, and Creation	Examines scientific, mythic, and religious ideas relating to origins (particularly human). Place of antievolutionism and scientific creationism in American culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	384	The Bible and Archaeological Discoveries	Studies the Bible alongside the stories that architecture, pottery, metalwork, sculpture, tombs, and paintings of the ancient Near East have to tell. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	385	Contemporary Western Religious Thought	Introduces contemporary Jewish and Christian thought. Topics include religion and politics, problem of evil, interpretations of God, and feminist theology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	386	America and the Holocaust	Analyzes the historical and sociopolitical factors that shaped U.S. policy decisions regarding Germany's assault on Europe's Jews.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU or SB	
REL	388	Religion, Ethics, and International Politics	Explores the religious and ethical dimensions of international politics by examining historical and contemporary ideas, movements, issues, and events.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites:Must have a C or better in ENG 102, or ENG 105, or ENG 108, or currently enrolled
REL	390	Women and Religion	Role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	391	Philosophy and Religion	General survey of the development of central concepts in the philosophy of religion in the history of Western philosophy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites:ENG 102, or ENG 105, or ENG 108, with a grade of C or better, or be currently enrolled
REL	393	Religion and Sexuality	Examines what issues are involved in incorporating sexuality into religion and how/why religious traditions seek to control sexuality.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	395	Religion and Psychology	Examines religious experience from various psychological viewpoints and explores the relationship between religion and psychology in theory and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, ENG 105 or ENG 108 with C or better
REL	396	Women in the Bible	Uses feminist criticism to reconstruct the remarkable women who stand in the shadow of the patriarchy in the bible.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must have a C or better in ENG 102, or ENG 105, or ENG 108, or currently enrolled
REL	400	Approaches to Religion	Examines the intellectual history of academic study of religion through various theoretical approaches, major themes, and thinkers.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be a Religious Studies student
REL	405	Problems in Religious Studies	Selected topics in religious studies; involves students in research interests of instructor.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Religious Studies undergraduate student
REL	410	Judaism in Modern Times	Variety of expressions of Judaism and Jewishness in the modern period. Topics may include American Judaism or religious responses to the Holocaust.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	420	Religion in American Life and Thought	Influence of religion on American society, culture, and ideas; the distinctive character of religion in America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU	
REL	427	American Religious Thought	Thought of representative American religious thinkers, e.g., Jonathon Edwards, William Ellery Channing, Horace Bushnell, and Reinhold Niebuhr.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	430	Mesoamerican Shamanic Cosmographies	Analyzes process of religious hybridization in Mesoamerica; examines symbolic interpretations of Amerindian religious practice and cosmological concepts of Mesoamerican priests.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with C or better
REL	444	Religion in Japan	Religion in Japanese history, especially the development of Japanese Buddhism, and religion in the modern transformation of Japan.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H & G	
REL	460	Studies in Islamic Religion	Issues in the interpretation and understanding of Islamic texts, history, society, culture, and rituals. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & G	
REL	461	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only AFS 480, SGS 442 or REL 461
REL	470	Religion in the Middle Ages	Religious aspects of medieval life and thought; variety of forms of dissent, heresy, and reform movements from the 4th to 13th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	471	Reformation and Modern Christianity	Protestant Reformation to contemporary Christian movements; includes factors in the dissolution of the Medieval Christian synthesis, variety of reform movements and reformation patterns, Catholic counter-reform measures, formation of liberal theology, ecumenical movement, and the World Council of Churches.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	HU & H	
REL	480	Religion and Global Politics	Explores the nature and role of religion in international politics in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.	G	
REL	482	Religion, Violence, and Conflict Resolution	Focuses on the ambiguous, often confounding role of religion in local and global conflict and the pursuit of peace.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisite: ENG 102, 105 or 108 with C or better; Credit is allowed for only JUS 473, POS 473 or REL 482
REL	483	Religion and Science	Investigates the correlation between science and religion as an interdisciplinary study from a historical perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	486	Holocaust on Film	Examines how motion pictures recorded actual holocaust events and have depicted them since World War II.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better. Credit is allowed for only FMS 486 or REL 486
REL	487	Religion and Film	Uses a transdisciplinary approach to explore cinematic representations of religious institutions, belief, and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		Pre-requisites: Must be an Honors student
REL	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6	L	Pre-requisites: Must be an Honors student
REL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		
REL	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-6		
REL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-7		
REL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-3		
REL	500	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	501	Research Methods in Religious Studies	Explores the major themes and methods in the study of religion, with primary focus on classical texts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	502	Research Methods in Religious Studies	Explores the major themes and methods in the study of religion, with primary focus on contemporary texts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	581	Foundations of Ethics I	Studies primary texts of classic ethical theories and their applications to various issues in daily life and the professions. Ethical traditions include some of these frameworks: virtue ethics and natural law ethics, consequentialism and contractualism, deontology and critical communitarianism. Pays attention to the shifting nature of the relation between ethics and religion. In the applied, activity-portion of the course, students investigate real-life ethical issues and examine them from several normative perspectives.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		
REL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	585	Ethical and Spiritual Issues in Pastoral Care	Recalling the ancient Socratic, biblical, and other spiritual traditions of the cura animarum (care for and cure of the soul) and joining contemporary post/secular conversations relevant to the integration of the body-mind-spirit, this course introduces basic concepts and practices of the pastoral care ethics and spirituality. Focuses on the irreducible relations among existential (ontological), therapeutic (psychosomatic), and spiritual (religious) dimensions of care. The theoretical part of the course is inter-faith in approach, holistic in scope, and specialized in content; in the applied, activity-portion of the seminar, students investigate real-life issues in care ethics and spirituality and examine them from several perspectives studied during the semester.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: AEP 501 and AEP 502 with a D or better; students who have credit for PHI 550 or REL 585, may not enroll in AEP 550
REL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		
REL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-4		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	603	Teaching World Religions	Seminar designed to prepare participants to teach a course similar to ASU's REL 100.	N	LEC	N	GRD	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: Phd or Masters student in Religious Studies
REL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-12		
REL	720	Approaches to North American Religious History	Traces narratives and approaches to imagine and reimagine the "plot" of American religious history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Historical and Critical Inquiry	3.		Pre-requisites: PhD in Religious Studies student
REL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1.		
REL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Historical and Critical Inquiry	1-15		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite: students may not enroll in REL 100 if they have received a D or better in REL 200
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisites: Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various intersectoral between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	300	Research, Writing, and Thinking in Religion and Applied Ethics	Theoretical and methodological tools to study world religions' beliefs, practices, and communities and their intersections with ethical perspectives on problems.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better
REL	305-W	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
REL	310	Western Religious Traditions	Religious traditions of Judaism, Christianity, and Islam, comparing their doctrinal, institutional, and ritual systems and social histories.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	320	Religion in America	The emergence of religious ideas and institutions up to the Civil War.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C & H	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
REL	321-W	Religion in America	The emergence of religious ideas and institutions from the Civil War to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & H	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
REL	345	Asian Religious Traditions	Introduces the major concepts of religious beliefs, rituals, and practices in Hinduism and Buddhism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
REL	390-W	Women and Religion	The role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	Pre-requisite: ENG 101 or 105 with a C or better or currently enrolled
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	401	Sacred Scriptures and Social Choices	Examines relationships among contemporary moral issues and the sacred scriptures to support choices at individual, group, and public levels.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
REL	420	Religion in American Life and Thought	The influence of religion on American society, culture, and ideas; the distinctive character of religion in America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
REL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisite: Minimum CUM GPA of 2.00
REL	490	Senior Thesis	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student.	N	THE	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
REL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
REL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
REL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
REL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	305-M	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	School of Historical and Critical Inquiry	3.		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G	Pre-requisites: Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various intersector between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
REL	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
REL	260	Introduction to Islam	Examines Islamic beliefs, ceremonies, festivals, and institutions. Assumes no prior knowledge about Islam.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	270	Introduction to Christianity	Beliefs, ceremonies, festivals, and institutions of Christianity, emphasizing the contemporary era. Assumes no previous knowledge about Christianity.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
REL	305	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	315	Hebrew Bible (Old Testament)	Nature, content, background, historical situation, and message of the books of the Hebrew Bible in English translation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
REL	320	American Religious Traditions	Examines the formation, development, and interaction of major American religious traditions (indigenous, African American, Asian American, and Euro-American).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C & H	
REL	330	Native American Religious Traditions	Presents world views and religious thought through the art, architecture, literature, music, mythology, ritual, and folklore of representative tribes in North America.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
REL	371	New Testament	Origins and literature of early Christian communities; historical investigations of the types of oral and written tradition in the New Testament.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	

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REL	372	formation of the Christian Tradition	Origins, development, and expansion of Christianity; major themes and tensions from the New Testament world to the beginning of the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
REL	374	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	390	Women and Religion	Role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	390	Women and Religion	Role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ROM	101	Elementary Romanian	Basic grammar with intensive drills in class and lab directed toward conversational fluency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
ROM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	201	Intermediate Romanian	Continuation of ROM 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
ROM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	313	Romanian Composition and Conversation	Develops skills in written Romanian and correct oral expression. Must be taken in sequence with ROM 314.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: ROM 201
ROM	314	Romanian Composition and Conversation	Continuation of ROM 313. Develops skills in written Romanian and correct oral expression. Must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: ROM 313
ROM	411	Advanced Spoken and Written Romanian I	Improvement of spoken and composition skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ROM 101, 201, 313, 314 with C or better
ROM	412	Advanced Spoken and Written Romanian II	Improvement of spoken and composition skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ROM 101, 201, 313, 314, & ROM 411 with C or better
ROM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ROM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	REC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ROM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ROM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RTM	120	Leisure and Quality of Life	Conceptual foundations for understanding the role of leisure in quality of life, socially, historically, psychologically, culturally, economically, and politically.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
RTM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	210	Leisure Delivery Systems	Introduces development, management, and organization of the public, not-for-profit, and private sectors for the leisure services profession.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RTM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	301	Leadership in Recreation and Tourism	Leadership theory and strategies applied to recreation and tourism settings, emphasizing group dynamics, motivational processes, and supervisory skills.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have a GPA of 2.0 or greater
RTM	302	Recreation and Tourism for Diverse Populations	The role of recreation and tourism in serving the needs of culturally, physically, emotionally, mentally, and demographically diverse populations. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-requisites: must have a GPA of 2.0 or greater
RTM	303	Programming Recreation and Tourism Services	Foundations for effective programming of leisure services in public, not-for-profit, and private sectors. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must be in either HSRECBS or PPRECWBS, or PPTDMBS plans (Recreation & Tourism Mgmt majors)
RTM	304	Recreation and Tourism Areas and Facilities Management	Principles of management, care, function, and maintenance of recreation and tourism areas, facilities, and resources. Field and classroom based.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: must have a GPA of 2.0 or greater
RTM	320	Talent and Entertainment Concepts	Provides theory and skill development focused on management, marketing, finances, facilities, equipment, and operations related to coordinating entertainment elements.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites:Completed RTM 486 or PRM 486 with a grade of D or better, or currently enrolled
RTM	321	Event Protocol, Ethics, and Etiquette	Theoretical and practical focus on the special elements of protocol, ethics, and etiquette as they apply to special events management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	322	Special Event Programming	Provides a theoretical and practical base related to planning, organization, and coordination of activity elements that comprise the special events program.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	323	Special Event On-Site Operations	Theory and practical skills focused on security, parking, traffic, waste management, transportation, communication, storage, and other operational issues.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	324	Festival Site Design	Provides both a theoretical basis and practical skills focused on how to physically design and lay out a special event.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	325	Working with Subcontractors and Vendors	Theory and skills focused on equipment rentals, food and beverage vendors, arts and crafts vendors, commercial vendors, and other subcontracted entities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	326	Sponsorship	Provides theory and practical skills focused on selling, partnership, benefit/assets, and leverage concepts of sponsorship for special events.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	327	Creative Event Revenue Production	Provides both theoretical and practical skills focused on earned income and other alternative financing for special events.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	328	Budgeting and Accounting for Special Events	Focuses on details related to budgeting, accounting, and financial controls used in special event management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	355	Team-Building Strategies	Explores the concepts and strategies for facilitating team building, self-confidence, and positive self-esteem in situations across the lifespan.	N	LEL	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	360	Policy, Planning, Development of Recreation and Tourism Resources	Investigates the policy, planning, development, and management practices related to the provision of recreation and tourism opportunities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	373	Leisure Travel and Tourism	Examines leisure travel and tourism, tourist behavior, and the effect of tourism on communities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
RTM	388	Business Practices for Special Event Management	Emphasizes personnel, strategic planning, marketing, risk management, legal issues, and professionalism in special event management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	401	Administration of Recreation and Tourism Services	Basic application of management principles to recreation and tourism services. Includes budgeting, personnel actions, legal issues, and public relations. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	402	Evaluation and Assessment in Recreation and Tourism	In-depth development of a program evaluation. Specification of objectives, instrument development and administration, data analysis, and reporting findings.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: PRM 304 or PRM 401 with a C or better if completed
RTM	403	Professional Development Seminar	Emphasizes current professional issues and refinement of professional philosophy and competencies that enable transition from student to professional.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites:must be a BS student in Recreation & Tourism Mgt

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RTM	404	Marketing Recreation and Tourism	Principles of marketing and promotional strategy for recreation and tourism operations. Emphasizes case study experience with leading professionals.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	450	Leisure and Aging	Examines the factors influencing leisure among older adults, including policy issues and program service implications. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	451	Grant Writing for Human Service Professionals	How to increase grant funding: creating fundable ideas, identifying sponsors, following guidelines, writing effectively, constructing budgets, responding to reviewers.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	453	Volunteer Management in Human Service Organizations	Administration of volunteer service programs. Study and analysis of volunteer personnel process.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	454	Human Services for At-Risk Youth	Overview of policy and programs affecting at-risk youth; examines risk factors and programmatic solutions to them.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	458	International Tourism	Global examination of international tourism and its significance as a vehicle for social and economic development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
RTM	475	Entrepreneurial Recreation and Tourism	Examines the development, management, and future of for-profit ventures in recreation and tourism.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		Pre-requisites: Recreation & Tourism Mgt students
RTM	486	Special Events Management	Principles of programming and managing special events for diverse populations. Class plans, conducts, and evaluates a community special event. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	487	Special Events Management, Advanced	Advanced principles of special event sponsorship, public relations, marketing, contracting, risk management, and financial management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites:Completed RTM 486, or REC 486 or RTM 486 with C or better
RTM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
RTM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		Pre-requisites: must have a GPA of 2.0 or greater
RTM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
RTM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	580	Practicum		N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RTM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RUS	101	Elementary Russian	Structural grammar and basic vocabulary. Introduces and reinforces aural/oral reading and writing skills. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
RUS	102	Elementary Russian	See RUS 101. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
RUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
RUS	201	Intermediate Russian	Systematic review of grammar. Develops vocabulary through reading and writing. Drill in aural/oral skills. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
RUS	202	Intermediate Russian	See RUS 201. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
RUS	211	Basic Russian Conversation	Intensive aural/oral drill to supplement reading and grammatical skills acquired in RUS 101, 102, 201, and 202. Required of Russian majors. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
RUS	212	Basic Russian Conversation	See RUS 211. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
RUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	311	Russian Composition and Conversation	Develops writing ability and oral expression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 202 with C or better
RUS	312	Russian Composition and Conversation	See RUS 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 202 with C or better
RUS	321	Foundations of Russian Literature	Literary movements, prose, poetry, and drama from early Kievan writings to 19th-century works of Pushkin, Lermontov, Gogol. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	
RUS	322	Great Russian Writers of the 19th Century	Surveys the great age of prerevolutionary Russian prose, including works of Gogol, Turgenev, Dostoevski, Tolstoy, and Chekhov. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	323	Modern Russian Literature and the Soviet Legacy	See also SLC 323. 20th-century Russian writers: their prose, poetry, drama; problems of the writer in Soviet and post-Soviet society. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
RUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	411	Advanced Composition and Conversation I	Improves aural discrimination and self-expression in oral and written skills, emphasizing vocabulary building. Subject materials drawn from current post-Soviet-Russian publications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 312 with C or better
RUS	412	Advanced Composition and Conversation II	See RUS 411.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 312 with C or better
RUS	417	Applied Russian Phonetics	General improvement in the student's language skills through aural/oral training in Russian phonology and an analysis of Russian orthography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites: RUS 102 with C or better
RUS	420	Russian Poetry	Development of Russian poetry from its beginnings to the present, including both native and emigre poets. Topics in criticism and the study of poetics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: RUS 312 with C or better
RUS	421	Pushkin	Pushkin's poetry, plays, and prose fiction, including Eugene Onegin, The Little Tragedies, Tales of Belkin, Queen of Spades and The Captain's Daughter. Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	423	Dostoyevsky	Dostoyevsky's major works of fiction, including <i>Crime and Punishment</i> and <i>Brothers Karamazov.</i> Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	424	Tolstoy	Tolstoy's major works, including War and Peace and Anna Karenina. Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	425	Chekhov	Chekhov's major works, representative short stories and major plays, including <i>The Cherry Orchard</i> and <i>Three Sisters.</i> Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	

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RUS	430	Russian Short Story	Detailed study of representative works of the Russian short story genre. Includes authors from both Imperial and Soviet Russia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: RUS 312 with C or better
RUS	441	Survey of Russian Culture	Interplay of artistic, social, and political forces in the development of Russian culture from the Kievan period to the present. Exclusive use of Russian language source materials.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G & H	Pre-requisites: RUS 312 with C or better
RUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
RUS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
RUS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
RUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	495	Russian for Heritage Speakers	Generates professional proficiency by developing advanced communicative and written competency in standard literary Russian.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
RUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
RUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
RUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
RUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SBS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	200	Introduction to Social and Behavioral Sciences	Overview of the social and behavioral sciences, indicating their contributions to society and emphasizing interdisciplinary integration	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	300	Interdisciplinary Approaches to Social and Behavioral Sciences	Interdisciplinary approach to the study of social life.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	301	Cultural Diversity	Socially structured differences in historical and cross-cultural perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(L or SB) & C	
SBS	302	Qualitative Methods	Basic methodological issues in the systematic application of qualitative analysis of human social life. Surveys range of qualitative methods used by social and behavioral scientists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	303	Quantitative Methods	Concepts underlying design and implementation of quantitative research methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	304	Social Statistics I	Statistical techniques of the social and behavioral sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	
SBS	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.
SBS	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SBS	351	Population Geography	Demographic patterns. Spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: must have completed MAT 117, or 119, or 142, or 170, or 210 with a grade of C or greater; or be currently enrolled in one of these
SBS	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SBS	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SBS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	404	Social Statistics II: Multivariate Analysis	Analysis of variance, multiple regression, dummy variable regression, path analysis, and related topics. Computer application to problem solving.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: must have completed SBS 303 and SBS 304 with a grade of C or greater.
SBS	410	Topics in Identity/Difference	Topics which focus on race/ethnic, gender, sexual or cultural identity/difference. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	430	Topics in Power/Knowledge	Selected topics concerning the effects of political and social institutions on perceptions of politics and political culture. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	440	Family Studies	Theoretical frameworks for analyzing the development of family systems. Impact of social and economic conditions on family forms. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	447	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SBS	450	Topics in Local/Global	Examines links among social, political, economic changes at local, national, global levels. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SBS	460	Urban Studies	Studies local and global urban issues such as social geography, political economy, culture and social space, urban social diversity. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	461	Program Evaluation and Policy Research	Examines design, data collection/analysis, and political/ethical issues in planning and evaluating social programs and policies in community organizations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: AJS 302, COM 308, PSY 290, SBS 302 or SBS 303
SBS	480	Global Justice	Explores questions of justice that cross national borders, including delivery of foreign aid, immigration, and military intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
SBS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SBS	490	Senior Thesis I	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student. First part of a six-semester-hour sequence, followed by SBS 491.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	491	Senior Thesis II	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student. Second part of a six-semester-hour sequence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SBS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
SBS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
SBS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
SBS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SCM	300	Global Supply Operations	Resources and information to create and deliver products globally. Interfirm systems and industry supply chains. Customer, producer, and employee perspectives. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and min 56 earned hours; ACC 241, CIS 105 or CIS 220, and ECN 221 with a grade of C or greater.
SCM	301	Supply Chain Management	Examines the purchasing, materials, and logistics management areas. Presents techniques for acquiring, storing, processing, and moving material inventory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		
SCM	303	Honors Global Supply Operations	Explores the principles, concepts, and tools of supply chain management, with emphasis on how these are applied in the business world.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: Must be an Honors student; ACC 241, CIS 105, and ECN 221 with a grade of C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SCM	345	Logistics Management	Logistics and supply chain activities emphasizing integration of transportation, inventory, warehousing, facility location, customer service, packaging, and materials handling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisite: W.P. Carey Supply Chain Management BS student; Co- or Pre-requisite: SCM 300 or 303 with a grade of C or better or be currently enrolled or co-enrolled.
SCM	355	Supply Management	Management of the supply function, including organization, procedures, supplier selection, quality, inventory decisions, and price determination.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.	L	Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 300 or 303 with C or better
SCM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
SCM	415	Business Decision Models	Introduces quantitative tools used to aid management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: SCM 300 or SCM 303 with a grade of C or better
SCM	432	Planning and Control Systems for Supply Chain Management	Planning and control systems for product and service flows in supply chain: production planning, master scheduling, MRP, ERP, inventory management. fee	N	LAB	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.	L	Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 345 with C or better; Pre/Co-requisite: SCM 355
SCM	440	Quality Management/Measurement	Quality management and measurement, relationships with suppliers and customers, quality awards, certifications, programs, tools for process improvement and cost analyses.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; Pre-requisites: SCM 300 with a grade of C or greater or be currently enrolled.
SCM	455	Research and Negotiation	Current philosophy, methods, techniques for conducting strategic and tactical supply chain research and negotiations. Includes supplier price and cost analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 355 with a grade of C or greater
SCM	463	Global Supply Chain Management	Supply chain activities in international business with special emphasis on management of transportation, global sourcing, customs issues, and facility location in a global environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey BS or BA student; Must have completed SCM 300 with a grade of C or greater.
SCM	479	Supply Chain Strategy	Integrated supply chain strategies synthesizing supply management, production, logistics, and enterprise systems. Provides a comprehensive perspective of supply chain management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 432 with a grade of C or greater
SCM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-6	L	Pre-requisites: Must be an Honors student
SCM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		Pre-requisite: SCM 300 or SCM 303
SCM	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
SCM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
SCM	502	Operations and Supply Management	Contemporary management issues, including environmental, project, and supply chain management; new product development; quality control; TQM.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey MBA students
SCM	511	Integrated Supply Chain Management	Management of sourcing, operations, and logistics as an integrated process.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	515	Decision Models for Supply Chain Management	Decision modeling approaches for supply chain management such as optimization, simulation, and decision analysis. Emphasizes spreadsheet-oriented approaches.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	521	Supply Management and Negotiation	Selecting, developing, and executing appropriate sourcing strategies and processes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	532	Supply Chain Cost and Design Issues	Strategic design and development of supply chains. Focus on cost-management tools applied to supply chain design and supplier management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	541	Logistics in the Supply Chain	Critical issues for customer perception of supply chain performance, including inventory planning, transportation, warehousing, information technology, and integrated logistics service.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	551	Operations Planning and Execution	Managing the conversion of raw materials to finished goods, including scheduling, work-in-process inventory management, and postponement/customization.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	581	Management of Technology and Innovation	Technology life cycles, technology forecasting, new product development process, innovation teams, innovation best practices.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	586	High-Technology Project Management	Project management processes for high-technology organizations, including planning, scheduling, team development, and control.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SCM	587	Project Management	Planning, scheduling, and controlling of projects in R & D, manufacturing, construction, and services. Project selection, financial considerations, and resource management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	588	Strategic Project Management	Overview of strategic project management processes, project planning and control, project portfolio management, resource allocation, management of strategic project partners.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-3		
SCM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
SCM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	N	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
SCM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
SCM	300	Global Supply Operations	Resources and information to create and deliver products globally. Interfirm systems and industry supply chains. Customer, producer, and employee perspectives. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BS student, Global Management student with Professional or Conditional status or a Food and Nutrition Management student
SCN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SCN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SCN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SCN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SCN	480	Methods of Teaching Physics	Evaluates various approaches to the teaching of high school physics. Preparation of demonstrations and experiments. Organization of a lab. Designed for secondary school physics teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SCN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SCN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SCN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SCN	530	Methods of Physics Teaching I	Inquiry approach to high school physics teaching.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SDE	510	Middle Grade Curriculum	Philosophical, historical, social foundations, and rationale for middle/junior high school education. Emphasizes the middle/junior high school student, teacher, and related philosophy, organization, and programs. Credit is allowed for only SDE 510 or 410.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	520	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	525	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SDE	530	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	535	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SDE	410	Middle Grade Curriculum	Philosophical, historical, social foundations, and rationale for middle/junior high school education. Emphasizes the middle/junior high school student, teacher, and related philosophy, organization, and programs. Credit is allowed for only SDE 410 or 510.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SDE	420	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: SED 403 with D or better or currently enrolled
SDE	425	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: SED 403 with D or better or currently enrolled
SDE	430	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: SED 403 with D or better or currently enrolled
SDE	435	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SDE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
SED	502	Equity in Mathematics and Science Education	Introduces equity issues in science and mathematics as they relate to gender, social class, and ethnicity. Examines current research in these areas.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	2-3		
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student
SED	523	Middle School Curriculum and Organization	Overview of the organization, curriculum, and philosophy of the U.S. public school system with emphasis on the middle school.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	528	Organizing and Managing the Middle/Secondary Classroom	Planning and delivering instruction; organizing and managing classrooms; making adaptations for English language learners and students with special needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	529	Dynamics of Effective Teaching	Explores and applies new research regarding learning, motivation, and retention. Has immediate application and results for classroom teachers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	530	Introduction to Middle School Concept, Philosophy, and Curriculum	Overview of the concept, curriculum, and philosophy of the U.S. public school system with emphasis on the middle school.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	533	Middle/Secondary Instruction, Management, and Assessment	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must be a graduate student
SED	544	Creating Classroom Climates	Emphasizes classroom management and instructional strategies for establishing positive classroom climates that facilitate learning. Includes field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	548	Teaching Geometry 5-8	Practical ideas and activities for teaching informal geometry grades 5-8, based on research on how students learn geometry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	577	Issues and Trends in Secondary Education	Analyzes lay and professional reports; problems and issues in American secondary education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

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SED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	711	Secondary Curriculum Development	Theories and processes of developing curriculum; evaluation of research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must have earned a C or better in SED 522 and a Y in SED 478 or SED 578
SED	722	Improvement of Instruction in the Secondary School	Evaluates the research; issues and theories related to the improvement of instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must have earned a C or better in SED 533
SED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	501	Introduction to Effective Instruction	Introductory course for certification program in secondary education. Emphasizes developing basic classroom management, instruction, and evaluation. Includes a field assignment of at least 120 hours.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	501	Introduction to Effective Instruction	Introductory course for certification program in secondary education. Emphasizes developing basic classroom management, instruction, and evaluation. Includes a field assignment of at least 120 hours.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	520	Science Methods for Early Adolescence	Examines the interrelationships between theory and practice in teaching science.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	533	Middle/Secondary Instruction, Management, and Assessment	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	547	Teaching Mathematics in the Middle Grades (5-9)	Strategies and methodologies to teach mathematics in the middle grades (5-9).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	560	Teaching Mathematics with Technology	Strategies and methodologies to teach mathematics with technology, focusing mainly on the middle grades (5-9).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	561	Teaching Science with Technology	Strategies and methodologies for effective technology-enhanced science classrooms and improved learning. Models student-driven inquiry teaching throughout the course.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	564	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	576	Field Experience	Applies course content in secondary and middle school science and mathematics classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	0-3		
SED	577	Issues and Trends in Secondary Education	Analyzes lay and professional reports; problems and issues in American secondary education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: College of Teacher Education and Leadership MEd students
SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: College of Teacher Education and Leadership MEd students
SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: College of Teacher Education and Leadership MEd students
SED	579	Apprentice Teaching in Secondary Education	Apprentice teaching in secondary school classrooms. Must be taken four times for a total of 9 semester hours. Lab, field experience. Fee.	N	FLD	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SED	111	Exploration of Science Teaching	General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
SED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	321	Critical Issues in Secondary Education	Examines perspectives of critical issues in contemporary education and encourages students to think critically and to develop their own viewpoints.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Co-requisites: Secondary Education student, SED 322, RDG 323, SED 397 and one of the following: SED 480, SED 481, BIO 482, LSC 482 or MTE 482 OR PDS (Professional Development School) student as appropriate
SED	322	Classroom Leadership in Secondary Schools	Theories and practices for managing and maintaining secondary classrooms for learning; strategies for home/school communication; and leadership roles for teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Secondary Education student, SED 321, RDG 323, SED 397 and one of the following: SED 480, SED 481, BIO 482, LSC 482 or MTE 482 OR PDS (Professional Development School) student as appropriate
SED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	396	Field Experience I		N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
SED	397	Field Experience II	Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Secondary Education student, SED 321, SED 322, RDG 323 and one of the following: SED 480, SED 481, BIO 482, LSC 482 or MTE 482 OR PDS (Professional Development School) student as appropriate
SED	403	Middle and Secondary School Principles, Curricula and Methods	Advanced level of development of knowledge and skills of instructional planning and methods of teaching and evaluating in the secondary school. Observation/participation required.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SED	403	Middle and Secondary School Principles, Curricula and Methods	Advanced level of development of knowledge and skills of instructional planning and methods of teaching and evaluating in the secondary school. Observation/participation required.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	405	Methods in Secondary Science Teaching	Explores effective instructional practices in the secondary science classroom and different documents that inform the field of science instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	464	Middle-School Curr/Org	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SED	478	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SED	478	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SED	478-W	Student Teaching in the Secondary School	The practice of teaching; relationship of theory and practice in teaching.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-12		Pre-requisites: Secondary Education student or PDS (Professional Development School) student as appropriate
SED	480	Special Methods of Teaching Social Studies	Interdisciplinary approaches; production and collection of materials.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	480	Special Methods of Teaching Social Studies	Interdisciplinary approaches; production and collection of materials.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Secondary Education BAE student; Co-requisites: SED 496
SED	481	English Teaching Methods for Secondary Schools	Instructional, organizational, and presentation methods for English in secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	482	Science Teaching Methods for Secondary Schools	Methods of instruction, organization, and assessment of science for secondary and middle grade schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SED	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	496	Field Experience	Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisites: Initial Teacher Certification Program Admission
SED	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SEM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-3		
SEM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-4		
SEM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	3.		If you have credit for PHY 552, or MSE 552, or NAN 552, you may not enroll in SEM 552
SEM	553	Electron Microscopy Laboratory I	Lab support for SEM 552.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	1.		

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SEM	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent-beam diffraction, and electron holography. Novel developments and applications.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	3.		
SEM	555	Electron Microscopy Laboratory II	Lab support for SEM 554.	N	LAB	N	OPT	Graduate College	Center for Solid State Science	3.		
SEM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
SEM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
SEM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-4		
SEM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Center for Solid State Science	1-12		
SEM	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-15		Pre-requisites: Science & Engr of Materials PhD students
SEM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Center for Solid State Science	1-15		Pre-requisites: Science & Engr of Materials PhD students
SES	100	Introduction to Exploration	Science and engineering of Earth, solar system, and space exploration. Experimental design, engineering design; teaming; the professions of science and engineering. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	CS	
SES	101	Earth, Solar System, and Universe I	Basic principles of geology and astronomy combined to examine the history of the universe, the solar system, and Earth. Both SES 101 and SES 103 must be taken together to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
SES	102	Earth, Solar System, and Universe II	Continuation of SES 101. Basic principles of geology and astronomy combined to examine the history of the universe, the solar system, and Earth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
SES	103	Earth, Solar System, and Universe Laboratory I	Studies astronomical and geological processes through observations and measurements. Requires field trips and evening telescopic observing. Both SES 101 and SES 103 must be taken together to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3	SQ	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SES	104	Earth, Solar System, and Universe Laboratory II	Studies astronomical and geological processes and life through observations and measurements. Requires field trips and evening telescopic observing. fee	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
SES	111	Exploration of Science Teaching	General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
SES	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
SES	210	Engineering Systems and Experimental Design	Scientific and engineering design process. Defining scientific problems, generating and evaluating engineering solutions. Computer modeling, technical writing and teaming skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: CHM 113 or PHY 121 with D or better or currently enrolled; ENG 101, ENG 105 or ENG 107 with D or better or currently enrolled; MAT 265 or MAT 270 with D or better or currently enrolled
SES	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
SES	311	Essentials of Astrobiology: Exploration for Life in the Universe	Origin and evolution of life on Earth. Strategies to explore for life in the cosmos. Possible field trips to explore regional geological analogues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: MAT 265 or MAT 270; PHY 121 or CHM 113 or BIO 188
SES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
SES	410	Senior Exploration Project I	Design and development of an Earth, solar system, or space exploration project. Conceptualization, design, development, deployment, data analysis, communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: ENG 101, ENG 105 or ENG 107; SES 311
SES	411	Senior Exploration Project II	Continuation of SES 410. Development of Earth, solar system, or space exploration project. Conceptualization, design, development, deployment, data analysis, communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: ENG 101, ENG 105 or ENG 107; SES 410
SET	540	Explosives Surety	Physical and chemical nature of explosives; detonation models; initiating systems; commercial, military, and improvised explosives; investigations; and counter measures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	560	Physical Security I	Systems engineering principles and concepts to guide the design, analysis, and implementation of protection systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	561	Physical Security II	Scientific theory behind analysis of physical protection systems. Includes probability and statistics, data collection techniques, algorithm processing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	570	Security System Instrumentation	Operating principles, limitations, and test procedures of security instrumentation and sensors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
SET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
SET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
SGS	101	Thinking Globally: The Individual and Authority	Examines the changing notions of the individual and authority over history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
SGS	102	Thinking Globally: Technology and Nature in World Settings	Examines changing interactions among humans and nature, geographic systems, global demography, and environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	G	
SGS	103	Contemporary Global Trends	Gives a grounding in patterns of international politics and global social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
SGS	111	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H & G	Credit is allowed for only HST 101 or SGS 111
SGS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
SGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(HU or SB) & G	
SGS	294	Special Topics		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SGS	301	Principles of Global Studies	Presents current debates about globalization and subjects these to critical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102, 105 or 108 with C or better
SGS	303	Global Trends	Analyzes the process of globalization across boundaries through the investigation of the determinants and ramifications of globalization from the vantage of modern social sciences. Students are expected to conduct and articulate independent critical analyses toward a more in-depth understanding of this social phenomena, global history, and particularly the global economy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Minimum 30 hours; ENG 102 with C or better
SGS	304	Professional Global Career Development	Orients the student to working in global contexts and to thinking critically about careers in the global arena. Focuses on working in organizational settings distinctly global. Three modules: nation-state, corporations, and working international organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 101 and ENG 102 with a C or better
SGS	305	Research Methods	Broad introduction to social science research methodology and design, particularly the methods used to analyze global problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	L	Pre-requisites:Eng 101 (or 107) and Eng 102 (or 105 or 108) with a grade of C or better
SGS	310	Global Urban Systems	Comparative approach focuses on relationship between development of comparative urban systems and environmental impacts at local, regional, global scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites:SGS 101 or SGS 301 and SGS 103 or SGS 303 with C or better
SGS	311	Urbanization in China	Explores contemporary and future Chinese urbanization from economic, built form, and environmental perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102 with C or better
SGS	320	Mechanisms of Governance	One of the fundamental issues in the social sciences concerns the problematic attainment of social order, which is the principal aim of governance. Presents the five principal mechanisms purported to account for social order, and illustrates these by providing empirical examples of each; includes film clips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102 with C or better
SGS	341	Humanitarian Crisis and International Intervention	Focuses on political, legal, and ethical issues raised by decision about military interventions in genocide and humanitarian crisis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	343	Religion, Nationalism, and Ethnic Conflict	Examines the role of religion in national and ethnic conflict in the contemporary world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & G	
SGS	344	Facing the Past: Truth, Memory, Denial After Atrocities	The past has never been so present as it is today. Over the last two decades, the world has shown an increasing interest in uncovering the hidden and forgotten histories of state-sponsored atrocities and acknowledging the fate of victims and survivors. Studies this movement for the recovery of truth, memory, and moral responsibility includes a wide range of actors and takes a number of different forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	381	Modern Southeast Asia	Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Singapore, Brunei, Indonesia, and Philippines since 1750: imperialism, revolution, and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G & H	
SGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	441	Religion and Global Politics	Explores the nature and role of religion in international politics in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	G	
SGS	442	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	454	Gender, Culture, and Development	Economic, cultural, and sociopolitical contexts for understanding women's roles related to health, family, work, education, and politics in developing countries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(L or SB) & G	May not enroll in SGS 454, if received credit for WST 457
SGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
SGS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
SGS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6	L	Pre-requisites: Must be an Honors student
SGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SGS	497	Honors Colloquium		N	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		
SGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-7		
SGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
SHS	101	American Sign Language I	Basic receptive/expressive conversational skills; basic grammar and syntax rules. Orientation to deafness and deaf culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	102	American Sign Language II	Further development of receptive/expressive conversation skills in ASL; finger spelling. Continued exploration of deaf culture.	N	LEL	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: SHS 101 with C or better; taken within the past two years
SHS	105	Introduction to Human Communication Disorders	Introduces hearing, language, and speech problems in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SHS	201	American Sign Language III	Continued development of fluency in ASL with emphasis on more abstract concepts and the ability to narrate events.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: SHS 102 with C or better and taken within the past two years
SHS	202	American Sign Language IV	Further development of fluency in ASL with emphasis on literature, folklore, and signing narratives with multiple characters.	N	LEL	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: SHS 201 with C or better and taken within the past two years
SHS	250	Introduction to Phonetics	Introduces English phonetics with emphasis on phonetic transcription, articulation, phonology, and disorders of speech.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		Pre-requisites: Must be an Honors student
SHS	310	Anatomical and Physiological Bases of Speech	Noncadaveric study of anatomical systems that underlie human speech and language, including respiration, phonation, articulation, and related nervous system processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	311	Physical and Physiological Bases of Hearing	Studies the physical characteristics of sound and of the structure and function of the human auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	350	Brain Memory and Language	Covers memory and language and their associated brain areas, and the resulting behavioral consequences of injury and disease.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	367	Language Science	Normative aspects and integration of language structure, comprehension, and production in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.	SB	
SHS	375	Speech Science	Normative aspects of speech, hearing, and language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	376	Psychoacoustics	Introduces acoustics, cochlear anatomy and physiology, and the perception of sound.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	401	Introduction to Audiology	Introduces hearing disorders and the purposes and procedures for basic clinical tests of auditory function. Credit is allowed for only SHS 401 or 501.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	402	Clinical Methods and Treatment of Communication Disorders	Principles and techniques for planning speech and language intervention, including observation experiences.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	431	Developmental Speech Disorders	Introduces the nature of articulation, fluency, resonance, and voice disorders in childhood.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	450	Observation	Opportunity to obtain observation experience at the ASU Speech and Hearing Center or at external sites.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	465	Speech and Language Acquisition	Speech and language development in the normal child.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.	SB	
SHS	470	Developmental Speech and Language Disorders	Introduces the nature of speech and language disorders in children.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	485	Acquired Speech and Language Disorders	Introduces acquired speech and language disorders across the lifespan.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		

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SHS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		Pre-requisites: Must be an Honors student
SHS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6	L	Pre-requisites: Must be an Honors student
SHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	496	Aural Rehabilitation	Approaches to aural rehabilitation of children and adults. Introduces educational audiology and assistive listening devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		
SHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-7		
SHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-3		
SHS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		Pre-requisite: Must be a student in either MS Communication Disorders or PHD Speech And Hearing Science.
SHS	501	Introduction to Audiology	Introduces hearing disorders and the purposes and procedures for basic clinical tests of auditory function. Credit is allowed for only SHS 501 or 401.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	502	Basic Audiometry	Covers the bases, purposes, rationales, and procedures for the core clinical tests of auditory function in adults and children.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	504	Amplification I	Operation, electroacoustic measurement, selection, and prescriptive fitting of amplification devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	505	Survival Sign Language	Facilitates effective manual and alternative methods of communication with deaf individuals in clinical settings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	508	Pediatric Audiology	Emphasizes the principles and procedures for early identification and management of congenital and early-onset hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	510	Amplification II	Verification and validation of hearing aid performance, benefit, and satisfaction. Fitting considerations for pediatric and geriatric populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	511	Auditory Perception by the Hearing Impaired	Psychophysical methods and behavioral aspects of hearing, with an emphasis on the perceptual consequences of sensorineural hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	512	Topics in Management of Medical Aspects of Speech-Language Pathology	Focuses on varying topics in management of medically based speech and language disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	513	Neurophysiology of the Auditory System	Focuses on the neurophysiology of the normal auditory system and on changes associated with hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	515	Instrumentation and Calibration	Electronic instruments used to produce, modify, and measure characteristics of sound. Measurement standards and methods for calibration of audiologic equipment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	516	Auditory Evoked Potentials	Electrophysiologic assessment of the peripheral and central auditory nervous system. Lecture, lab.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	517	Balance Assessment	Clinical analysis and treatment of balance disorders and dizziness.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	518	Auditory Rehabilitation	Study and clinical application of assistive technology and rehabilitative services for managing the effects of hearing impairment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	519	Auditory Pathologies and Disorders	Familiarizes students with major diseases, pathologies, and disorders of the human auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	520	Otoneurologic Applications in Audiology	Advanced otologic, neurologic, and audiologic approaches in the differential diagnosis of peripheral and central disorders of the auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	521	Auditory Aging	Focuses on aging and related effects on the auditory system and audition.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	522	Hearing Conservation	Examines the prevention, identification, physiological effects, and management of hearing loss due to noise exposure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	524	Counseling in Communication Disorders	Theories of counseling emphasizing the psychological and emotional impact and management of individuals with communication disorders and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2-3		
SHS	525	Audiology Practice Management	Business practice issues, quality assurance, and professional ethics for the practicing audiologist.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		

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SHS	545	Speech Perception by the Hearing Impaired	Focuses on the perception of speech by normal-hearing and hearing-impaired listeners.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	552	Physiological Measures of Auditory Function	Focuses on the measurement of otoacoustic emissions and acoustic immittance.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	555	Cochlear Implants	Covers the research and clinical aspects of cochlear implantation with a focus on the principles of speech coding strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	565	Speech and Language Acquisition	Speech and language development in the normal child.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	566	Psychology of Language	Psycholinguistic study of the production and comprehension of language across the lifespan.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	567	Neural Bases of Communication Disorders	Neuroscience and its application to matters of normal and disordered communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	570	Communication Disorders and Multicultural Populations	Studies racial and ethnic biases and the communication behaviors and disorders in various cultural groups.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	571	Augmentative Communication and Language Programming	Focuses on individuals across the age span who are unable or who are at risk for being unable to communicate with spoken language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	572	Language Assessment and Intervention in Infants and Toddlers	Focuses on the birth to 3-year-old population who are at risk for or who have communication and language disabilities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	573	Language Assessment and Intervention with School-Age Populations	Focuses on later language development, linguistic demands of academic settings, assessment and intervention strategies for older children and adolescents.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	574	Management of Low-Incidence Speech Disorders	Focuses on assessment and intervention of people with voice, fluency, and craniofacial disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	575	Aphasia and Related Neurogenic Language Disorders	Assessment and treatment of acquired neurolinguistic impairment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	576	Neuromotor Speech Disorders	Evaluation and treatment of the dysarthrias and apraxia of speech. Emphasizes acquired adult disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	578	Disorders of Voice	Communication disorders related to dysfunction of the phonatory and resonance systems of voice production, assessment, and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	579	Feeding and Swallowing Disorders Across the Lifespan	Focuses on individuals across the age span who have feeding and/or swallowing disorders. Presents assessment and treatment strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	580	Clinical Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		
SHS	581	Right Hemisphere Syndrome, Traumatic Brain Injury, and Dementia	Studies the nature, characteristics, and clinical management of cognitive and communicative impairments accompanying right hemisphere damage, TBI, and dementia.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	582	Differential Diagnosis of Communication Disorders	Procedures for assessing speech/language disorders in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	584	Clinical Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		
SHS	585	Articulation and Phonology: Assessment and Intervention	Assessment and treatment of developmental articulation and phonological disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	586	Language Sampling Methods in Speech-Language Pathology	Focuses on the use of language sampling and analyzes techniques to assess children's language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	587	Language Assessment and Intervention with Preschool Populations	Focuses on preschool language disorders and assessment and intervention strategies for preschool children.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	588	Spanish Language Acquisition	Examines Spanish language acquisition in children and adults in the context of monolingual and bilingual language acquisition.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	589	Audiology Grand Rounds	Grand Rounds bridges clinical and academic knowledge through case studies, application of emerging research, and clinical workshops.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SHS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	596	Aural Rehabilitation	Approaches to aural rehabilitation in children and adults. Introduces educational audiology and assistive listening devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-15		
SHS	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-15		
SHS	101	American Sign Language I	Basic receptive/expressive conversational skills; basic grammar and syntax rules. Orientation to deafness and deaf culture.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		
SLC	150	Introduction to East Asian Culture	Introduces the cultures of China, Japan, and Korea.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
SLC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SLC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	201	Introduction to Linguistics	Examines the nature and diversity of world languages, linguistic structures and functions of language, language variation, pragmatics, and language acquisition.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	202	Introduction to Literary and Cultural Theory	Interdisciplinary approaches to understanding culture and cultural production (literature, film, visual art, performance) in different countries.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	323	Survey of Literature of the Soviet Era in Translation	Surveys main literary movements, prominent authors, most significant works of prose, poetry, and drama of the Soviet period, 1917-1991.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
SLC	385	Career Development for Language Majors	Theoretical and practical aspects of career planning and development; research focus on language-related careers.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 101 or ENG 107 with D or better; ENG 102 or ENG 108 with D or better or currently enrolled
SLC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	400	Linguistics	Introduces the analysis of language and its use in social contexts. Topics: morphology, phonology, pragmatics, semantics, syntax, and variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	SB	Pre-requisite: Junior academic level

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SLC	401	Translation Theory and Practice	Translation theories and professional practices and ethics; bibliography, computer technology, and sample texts for natural and social sciences and humanities.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	415	Bilingualism and Languages in Contact	Analyzes linguistic aspects of bilingualism, e.g., pidgins and creoles, code-switching, and other contact phenomena; simultaneous/sequential bilingual language acquisition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 400 with D or better or currently enrolled
SLC	420	Foreign Literature in Translation	Not for language majors (except in Asian languages and Russian); open to language majors as a related-area course. Graduate students by permission.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
SLC	421	Japanese Literature in Translation	Readings selected by theme or genre or period from various works of Japanese literature in English translation. May be repeated when topics vary. Graduate students by permission.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
SLC	440	Film Theory and Criticism	Examines the major positions and issues in film theory from an historical perspective. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Prerequisite(s): ENG 102, 105 or 108 with C or better; FMS 100 with C or better; Credit is allowed for only FMS 461 or SLC 440
SLC	461	Feminist Political Writing in Contemporary Europe	Examines the discourse of gender-politics in Central Eastern Europe before and after Soviet hegemony.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 200 with D or better or currently enrolled; ENG 101 and 102 (or 105) OR ENG 107 and 108 with C or better
SLC	472	Literature and Politics in Pre- and Post-Communist Europe	Interdisciplinary examination of the cultures of Eastern Europe from WWI to the present.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 200 with D or better or currently enrolled; ENG 101 and 102 (or 105) OR ENG 107 and 108 with C or better
SLC	476	Literature and Film in 20th-Century Eastern Europe	Evaluates literary texts and films as a massive propaganda machine of the totalitarian state.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	479	Introduction to Teaching Foreign Languages	Introduces teaching methodologies, language learning, and current best practice in teaching foreign languages in U.S. middle and high schools.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	480	Methods of Teaching Foreign Languages	Teaching foreign languages and literatures at secondary and college levels. Does not meet the Liberal Arts and Sciences General Studies requirement for humanities and fine arts. Required for admission to SED 478.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	481	Technical and Scientific Translation	Resources, practices, strategies, and lexicon for translation of professional texts in subjects such as engineering, architecture, agriculture, computer technology, electronics, and physical and biological sciences.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SLC 401 completed with D or better or currently enrolled
SLC	482	Business and Financial Translation	Resources, practices, strategies, and lexicon for translation of professional texts in subjects such as economics, finance, insurance, management, marketing, accounting, advertising, and real estate.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SLC 401 completed with D or better or currently enrolled
SLC	483	Medical and Legal Translation	Resources and strategies for translation of professional texts in subjects such as medicine, nursing, public health, criminal justice, and international law.	N	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	485	Problems of Literary Translation	Theory and practice with emphasis on application through individual translation projects. May be repeated for a total of 6 semester hours.	N	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 401 with D or better or currently enrolled
SLC	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Honors students only
SLC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SLC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SLC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SLC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SLC	515	Second-Language Acquisition	Discusses and applies theories of second-language acquisition.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 400 with D or better
SLC	525	Second-Language Acquisition Trends and Issues in Foreign Language Teaching	Advanced methods seminar, designed for experienced teachers.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SLC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1		
SLC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLV	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	304	Computational Linguistics of Slavic Languages	Information technology and Slavic languages, including Web design, digitalized resources, information retrieval, math/statistical analysis, and PERL.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3	CS	
SLV	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	440	History of Slavic Languages	Comparative evolution of East Slavic, West Slavic, and South Slavic languages from the earliest record to the standardizing of national languages in the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3	SB	
SLV	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLV	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SLV	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SLV	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SLV	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		

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SLV	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	Students may not sign up for SOC 101 who have received a D or better in SOC 301.
SOC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	220	Sport and Society	Examines sports in American society as a source of socialization and an institution where gender, race/ethnicity, and class interact.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	264	Gender and Society	Sociological analysis of the development, nature, and consequences of gender in contemporary society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	(L or SB) & C	Pre-requisite: ENG 101 with C or better
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
SOC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisites: Must be an Honors student
SOC	301	Principles of Sociology	Intensive and critical analysis of the concepts of sociology. Credit is allowed for only SOC 301 or 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	Students may not sign up for SOC 301 who have received a D or better in SOC 101.
SOC	312	Sociology of Adolescence	Cultural values and the social processes that help explain the development of the phenomenon of modern adolescence, including investigation of adolescent subcultures and cross-cultural references.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	321	Sociology of Work	Social and cultural analysis of industry. Occupational roles, status, and social participation of workers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	331	Environmental Sociology	Analyzes human organizational responses to population growth, technological change, and environmental stressors on both a national and global scale.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	332	Urban Sociology	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	333	Population	Global trends in population growth, composition, and distribution; theories, policies, and impact of population trends on environmental quality and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	334	Technology and Society	Development of technology in relation to society, work, science, the environment, public health, and cultural values related to social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	340	The Sociology of Deviance	Sociological analysis of stigmatized behaviors and conditions, including the causes, effects, and management of stigma.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	341	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G & H	
SOC	360	Sociological Psychology	Interaction patterns between the sociocultural order and individuals; socialization process; norms, roles, and statuses; collective behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	363	Men and Masculinity	Sociological analysis of how masculine identity is defined, negotiated, and variously constructed depending upon class, ethnicity, age, and sexual orientation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	365	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	375	Contemporary American Jewish Identities	Analyzes the complexity and diversity of the contemporary American Jewish community in religious and secular affairs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	(HU or SB) & C	
SOC	390	Social Statistics I	Descriptive and inferential statistical methods for analysis of social data. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	CS	
SOC	391	Research Methods	Methods of social science research, including the fundamental assumptions underlying research, critique, research design, data collection, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	Prerequisites: SOC 101 (or SOC 301 or CDE 232) and SOC 390. Credit is allowed for only FAS 361 or SOC 391
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		

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SOC	415	The Family	Family considered from the institutional viewpoint; its historical development and its adaptation to a changing culture; the family system in many cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	416	Marriage Problems in Contemporary Society	Marital and family problems in today's society from the viewpoint of personal and cultural adjustment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	417	Family Violence	Current research and theories about domestic violence including child maltreatment, spousal aggression, and courtship violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	418	Aging and the Life Course	Social aspects of aging. Theoretical and methodological perspectives and problems of aging such as life satisfaction, retirement, and adjustment to role loss.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	420	Sociology of Religion	Interrelationship of culture, society, and religion; religion and social stratification; religious, economic, and political institutions; social change and religion. Emphasizes American society and institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	423	Social Class and Stratification	Classical and contemporary theories about who gets what and why. Examines social and economic inequalities by class, gender, and race/ethnicity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	424	Women and Health	Women as healthcare workers and issues of health, illness, and healthcare for women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	427	Sociology of Health and Illness	Social aspects of illness and sociological analysis of the healthcare system and its practitioners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	429	Sociology of Law	Examines law as an institution; its origins, operations, and consequences. Emphasizes contemporary legal issues and problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	433	Applied Demography	Science of population analysis. Covers techniques for measuring fertility, mortality, migration, and population composition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	446	Sociology of Crime	Process of criminalization, exploring the behavior of the definers of crime, and the behavior of those defined as criminals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	448	Epidemics and Society	How epidemics occur; how they are perceived in society; how epidemics affect society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	451	Comparative Sociology	Cross-cultural study of basic social institutions; the methodology of cross-cultural research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	474	African Americans in Modern Society	Social and cultural heritage of black Americans; achievements and current trends.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
SOC	483	History of Social Thought	Social thought in human culture. Background of modern sociology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	486	Contemporary Theory	Contemporary issues and crises in social theory with major focus on particular theorists. Ideological factors in theory, philosophical issues, the nature of theory and its relationship with methodology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisites: Must be an Honors student
SOC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
SOC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
SOC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
SOC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	501	Practicum in Survey Research	Research practicum in survey fieldwork, analysis, and reporting in the Phoenix Area Study.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	502	Practicum in Survey Research	Continuation of SOC 501.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	503	Sociology as a Profession I	Becoming and working as a sociologist, including how to write a vita, choose a thesis topic, or find dissertation data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	504	Sociology as a Profession II	Becoming and working as a sociologist, including how to write a vita, choose a thesis topic, or find dissertation data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	505	Applied Regression Analysis	Multiple linear regression topics relevant to sociological data analysis. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	507	Social Statistics IIA: Categorical Data Analysis	Logistic regression and related topics relevant to categorical data analysis in sociology. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	508	Social Statistics IIB: Structural Equation Analysis	Structural equation models using LISREL and other computer packages. Topics include multiple group analyses and ordinal endogenous variable models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	509	Social Statistics IIC: Event History Analysis	Proportional hazards models and other methods for analyzing longitudinal data and establishing hazard rates of events for exploratory variables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	512	Secondary Data Analysis	Works with existing data to produce a publishable article.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	515	Studies of the Family	Current developments in the study of marriage and the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	516	Family Demography	Current developments in the study of family demography.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	519	Graduate Medical Sociology	Current developments in medical sociology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	523	Social Stratification	Overviews significant themes, issues, and bodies of work in the field of social stratification, a fundamental topic of sociological inquiry.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	533	Demographic Methods	Emphasizes methods and techniques in demographic analyses such as life tables.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	585	Sociological Theory	Analyzes major sociological theories, from classical to contemporary.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	588	Methodological Issues in Sociology	Basic methodological issues in the study of human social life. Emphasizes a limited number of key issues and approaches to research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	210	Sociology of Murder	Sociological perspectives on various forms of murder and types of murderers. Also considers forms of punishment for murder.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SOC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	301	Principles of Sociology	Intensive and critical analysis of the concepts of sociology. Credit is allowed for only SOC 301 or 101.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	324	Work and the Workplace	Historical and comparative examination of changes in the structure and meaning of work and current shifts in people's work lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	
SOC	328	Migration	Introduces the definition and analysis of migration in all forms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	332	The Modern City	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have taken SOC 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.
SOC	340-W	Sociology of Deviant Behavior	Sociological analysis of stigmatized behaviors and conditions, including the causes, effects, and management of stigma.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	341-W	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	
SOC	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G & H	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3-4	(HU or SB) & G	
SOC	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	360	Sociological Psychology	Interaction patterns between the sociocultural order and individuals; socialization process; norms, roles, and statuses; collective behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	364	Popular Culture	Studies the social approaches to popular culture, focusing on the function of various forms (literature, film, theatre, and music).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	365-W	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	366	Film and Society	Studies the social approaches to film as an art form, mass medium, and ideological construct.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SOC	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	400	Perspectives on Aging	Broad overview of gerontological issues; e.g., physical aging, retirement, living options, caregiving, theoretical background, death.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	418-W	Aging and the Life Course	Examines aging as a process of change and adaptation over the lifespan, patterned by social, cultural, and historical forces.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	419	Organizations and Technological Change	Explores the increasing impact of information technology on corporate, governmental, and private organizations. May involve fieldwork.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SOC	426	Social Inequality	Examines stability and change in social inequality based on age, class, ethnicity, gender, and race.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	443	Sociology of Corporations	Examines corporations as social institutions and the implications of their status as a legal person on politics, culture, and economy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	456	Political Sociology	Social factors associated with voting; nature and structure of the electorate and political parties and the nature of national and international power structure.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	457	Global Social Movements	Examines how groups mobilize across borders to pursue social goals, including equality, justice, peace, and salvation in a global context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	486	Contemporary Theory	Contemporary issues and crises in social theory with major focus on particular theorists. Ideological factors in theory, philosophical issues, the nature of theory and its relationship with methodology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	492	Honors Directed Study		N	THE	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SOC	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
SOC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
SOC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SOC	220	Sport and Society	Examines sports in American society as a source of socialization and an institution where gender, race/ethnicity, and class interact.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	332	Urban Sociology	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
SOC	341	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
SOC	365	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	390	Social Statistics I	Descriptive and inferential statistical methods for analysis of social data. Computer applications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SOC	416	Marriage Problems in Contemporary Society	Marital and family problems in today's society from the viewpoint of personal and cultural adjustment.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
SOC	417	Family Violence	Current research and theories about domestic violence including child maltreatment, spousal aggression, and courtship violence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	420	Sociology of Religion	Interrelationship of culture, society, and religion; religion and social stratification; religious, economic, and political institutions; social change and religion. Emphasizes American society and institutions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
SOC	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
SOS	100	Introduction to Sustainability	Introduces basic concepts, global trends, and local responses, philosophical, ethical, and cultural dimensions.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	110	Sustainable World	Lays the groundwork for understanding the fundamental geological, biological, and social processes that gave rise to the world we live in and continue to maintain its viability for human life.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	111	Sustainable Cities	Introduces technological, social, and cultural principles and innovations for cities under the notion of sustainability and sustainable development within the global, regional, and local contexts.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.	(HU or SB) & G	
SOS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	320	Society and Sustainability	Establishes an understanding of the human, social, and cultural dimensions of sustainability from multi- and interdisciplinary perspectives and at a variety of spatial and temporal scales.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.	L or SB	Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	321	Policy and Governance in Sustainable Systems	Explores the wide array of political questions that are raised when we view the Earth's environment as an integrated, global system.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	322	International Development and Sustainability	Historical roots of the idea of development; economic theories of growth and their implications for sustainability; interrelationship among population growth, food security, poverty, inequality, urbanization, technological change, international trade, and environmental change at local, regional and global scale.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	323	Sustainable Urban Dynamics	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	324	Sustainable Energy, Materials, and Technology	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better
SOS	325	The Economics of Sustainability	Applies economic principles to the allocation of environmental goods and services, external environmental effects, and environmental public goods; decision-making under uncertainty, adaptation to and mitigation of environmental change.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOS	326	Sustainable Ecosystems	How human activities and management practices alter biodiversity, ecosystem functioning, and the provisioning of ecosystem services; use of economic and other social science perspectives to estimate the value of ecosystem services; evaluation of options for achieving the sustainable flow of services from ecosystems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites: SOS 110 and SOS 111 (or PUP 190) with C or better
SOS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	School of Sustainability	School of Sustainability	3.	SB	Pre-requisites: Students who have credit for ASM 414, or SSH 414, may not enroll in SOS 414. Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
SOS	424	Dynamic Modeling in Social and Ecological Systems	Introduces the development and use of dynamic mathematical models to study social and ecological phenomena.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	4.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better; Students who have credit in BIO 424 or ASM 424, may not enroll in SOS 424
SOS	430	Sustainable Economic Development and Social Transformation	A clustered learning network on the application of sustainability principles to the evaluation of economic development strategies at the national, regional, and local levels, using case studies. May be repeated once for credit.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	431	Resilience and Sustainability	A clustered learning network on the application of resilience analysis to the evaluation and management of the sustainability of coupled social-ecological systems using case studies. May be repeated once for credit.	N	SEM	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	433	Sustainable Water Use	A clustered learning network on the problem of water scarce regions, includes insights from hydrology, engineering, biology, economics and public policy. May be repeated once for credit.	N	SEM	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	492	Honors Directed Study		Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-6		
SOS	493	Honors Thesis		N	LEC	N	Z1	School of Sustainability	School of Sustainability	1-6	L	Pre-requisites: Must be an Honors student
SOS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	499	Individualized Instruction		Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-3		
SOS	510	Perspectives on Sustainability	University-wide course covering basic perspectives on sustainability. Uses case studies; faculty and students from engineering, architecture, social sciences, and natural sciences exchange ideas on the major challenges faced in forming a sustainable future at the local, national, and global levels.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	511	Quantitative Methods in Sustainability	Provides a sense of when, where, and how quantitative methods are used in studying questions related to sustainability; a road map for furthering quantitative skill sets; and opportunities to refresh and build some basic mathematical skills from selected topics in differential and integral calculus, linear algebra, and probability and statistics that will be required for further study.	N	LEL	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	512	Sustainable Resource Allocation	Microeconomic principles of resource allocation applied to environmental goods and services, external environmental effects and environmental public goods; decision making under uncertainty, adaptation to and mitigation of environmental change.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	513	Science for Sustainability	Carbon cycle, nutrient cycles, carbon and nutrients in the oceans, climate change, oxygen and ozone, solid waste pollution, urban air pollution.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	514	Human Dimensions of Sustainability	Concepts and definitions of the human dimensions of sustainability; the role of attitudes and values in shaping sustainability goals, practices, and programs; the diversity of values and socio-cultural contexts relating to sustainability; bottom-up and top-down sustainable policy development, social data collection methodologies.	N	SEM	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	515	Industrial Ecology and Design for Sustainability	The conceptual, ethical, and practical challenges in the design, manufacture, and life cycle performance of products; environmental evaluation via materials flow analysis and life cycle assessment; global economic, environmental, cultural, and social aspects of competitive and functional product development and manufacture.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	516	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		You may not enroll in SOS 516 if you have credit in GLG 547, or PAF 547, or BIO 515
SOS	530	International Development and Sustainability	Historical roots of the idea of development; economic theories of growth and their implications for sustainability; interrelationship among population growth, food security, poverty, inequality, urbanization, technological change, international trade, and environmental change at local, regional and global scale. Credit is allowed for only SOS 530 or SOS 322.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		

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SOS	532	Sustainable Urban Dynamics	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:May not enroll in SOS 532, if credit received for ASB 533
SOS	533	Sustainable Water	Hydrological, legal, political, and ecological implications of alternative water management strategies; effect of institutional and regulatory frameworks; changes in water demand and supply due to human (population growth, economic changes) and natural (drought, climate change) factors	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	534	Sustainable Energy and Material Use	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	535	Sustainable Ecosystems	How human activities and management practices alter biodiversity, ecosystem functioning and the provisioning of ecosystem services; use of economic and other social-science perspectives to estimate the value of ecosystem services; evaluation of options for achieving the sustainable flow of services from ecosystems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	550	Introduction to Sustainability and Organizational Strategies	Focuses on organizational strategies for technology companies competing in a global environment. Strategic and tactical decision implications of a life cycle value proposition; modeling and analysis for strategic decisions about product/service bundles and delivery mechanisms; innovation; technology, including the linkages to the firm strategy and empirical evidence; supply, demand, and value chain; research of laws, guidelines and international agreements.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	551	Water Policy and Management	Covers water policy and management focused on Arizona. Useful to anyone looking for a general background on water issues in Arizona or considering a career in water resources and environmental engineering, planning, or public policy. Divided into three major sections: the history of water resources development and hydrology of Arizona; water management in Arizona; and an examination of current issues and controversies.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		You may not enroll in SOS 551 if you have credit in CEE 544
SOS	552	Advanced Earth Systems Engineering and Management	Advanced introduction to earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	559	Sustainable Technology and Management Capstone	Provides opportunity to demonstrate comprehension of the fundamental aspects that have been introduced in the classroom and the synthesis of these fundamental aspects into a demonstrable project that can be presented and defended.	N	STO	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	579	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	School of Sustainability	School of Sustainability	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-15		
SOS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	School of Sustainability	School of Sustainability	1-15		
SP	431	Prose of Golden Age		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	107	Spanish for International Professions I	Accelerated program alternative to SPA 101, 102 sequence. Functional approach to needs of international professions. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.		
SPA	111	Fundamentals of Spanish	Primarily for students with two years of high school Spanish who need review to enter second-year study. Credit is allowed for only SPA 111 or both SPA 101 and 102. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		You may not sign up for SPA 111 if you have received a D or better in SPA111,201,202,203,204,311,312,313,314,315,316,325,412
SPA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Prerequisite: Must be a freshmanwith 25 or less total earned hours
SPA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	203	Intermediate Spanish for Bilinguals	For Spanish-speaking students, in lieu of SPA 201. Composition, literature, conversation, grammar fundamentals. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Students may not enroll in SPA 203 if they have received a D or better in SPA201,202,204,311,312,313,314,315,316,325,412
SPA	204	Intermediate Spanish for Bilinguals	For Spanish-speaking students, in lieu of SPA 202. Composition, literature, conversation, grammar fundamentals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 204 if you have received a D or better in SPA202,311,312,313,314,315,316,325,412
SPA	207	Spanish for International Professions II	Continuation of SPA 107, alternative to SPA 201, 202 sequence. Expansion of communicative proficiency in specific areas of international professions. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.	G	
SPA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SPA	311	Spanish Conversation	Designed primarily for nonmajors to promote vocabulary building and communicative expression in Spanish through discussions based on cultural readings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	312	Spanish Conversation	See SPA 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	May not enroll in SPA 313 if received a D or better in SPA 314,315, 316,325,412
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not sign up for SPA 314 if they have received a C or better in SPA 412; Pre-requisite: SPA 313 or 316 with a C grade or better
SPA	315	Spanish Conversation and Composition for Bilinguals	Emphasizes comparing standard Spanish with regional Southwest Spanish. May be taken in lieu of SPA 313 and 314.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Credit is allowed for only SPA 313, 314, 315, 316, or 412
SPA	316	Spanish Conversation and Composition for Bilinguals	See SPA 315.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		May not enroll in SPA 316, if received a D or better in SPA 314, SPA 412; must have completed SPA 315 with a D or better or in progress
SPA	319	Business Correspondence and Communication	Organization and presentation of clear, effective business communications; vocabulary applicable to modern business usage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:SPA 314 or SPA 316 with a grade of D or better, or enrolled
SPA	325	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 313 or SPA 315 with a grade of D or better or in progress
SPA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	400	Introduction to Spanish Linguistics	Introduces the discipline and methods of linguistics through the study of Spanish data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better, or in progress

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SPA	412	Advanced Conversation and Composition	Oral and written Spanish communication skills, with particular attention given to developing fluency and facility. Required of majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: SPA 314 or SPA 316 with D or better
SPA	413	Advanced Spanish Grammar	Intensive analysis of the Spanish language. Required of teaching majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:SPA 314 or SPA 316 with a grade of D or better or enrolled
SPA	417	Spanish Phonetics and Phonology	Introduces the theory and practice of Spanish phonetics and phonology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better, or in progress
SPA	420	Applied Spanish Linguistics	Applies linguistic principles to the teaching of Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites:Must have completed Fla 400(or equivalent) with a grade of C or greater or be currently enrolled;& completed SPA 412 or in progress
SPA	421	Spanish in the Southwest	Discussion and linguistic analysis of Southwest Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or SB) & C	Pre-requisites: SPA 412 with C or better
SPA	422	Spanish Lexicology and Lexicography	Explores the linguistic theory and methodology related to the defining of meanings of words in Spanish dictionaries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better or currently enrolled
SPA	425	Spanish Literature	Surveys Spanish literature from its beginning to 1700.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	426	Spanish Literature	Surveys Spanish literature from 1700 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	427	Spanish American Literature	Surveys major works, figures, and movements from Colonial period to 1880.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	428	Spanish American Literature	Surveys major works, figures, and movements from 1880 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L & G	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	429	Mexican Literature	Selected readings from pre-Columbian writers/poets (e.g., Macuilxóchitl) through the novel of the Revolution to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	431	Prose of Golden Age		N	LEC	N	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	434	Drama of the Golden Age	Dramatic works of Lope de Vega, Calderón de la Barca, and their contemporaries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	435	Cervantes-Don Quijote	Don Quijote and the development of the novel.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	454	19th-Century Spanish American Narrative	Principal works in the novel, short story, narrative fiction, and narrative (Gauchesque) poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	456	20th-Century Spanish American Fiction	Major works and movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	464	Mexican American Literature	Representative literature in Spanish and English by Mexican Americans, emphasizing sociocultural as well as literary values.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(HU or SB) & C	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	471	Civilization of the Spanish Southwest	Political, intellectual, social, economic, and artistic development of the Spanish-speaking people of the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & C	Pre-requisites:SPA 314, or 316, with a grade of D or better or currently enrolled
SPA	472	Spanish American Civilization	Growth of the institutions and cultures of Spanish American people.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisites:SPA 314 or 316 with a grade of D or better or currently enrolled
SPA	473	Spanish Civilization	Political, intellectual, social, economic, and artistic development of the Spanish nation from its origin to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(HU or SB) & G	Pre-requisites:SPA 314 or 316 with a grade of D or better or currently enrolled
SPA	474	Mexican Culture	Examines diverse aspects of Mexican culture since the 1910 Revolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	485	Mexican American Short Story	Critical study of contemporary short stories by Mexican American authors, with emphasis on their Spanish-language writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	486	Mexican American Novel	Social and literary contexts of representative novelists, emphasizing their Spanish-language writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	487	Mexican American Drama	Representative dramatic works, with emphasis on the history and development of this genre from its regional origins to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
SPA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SPA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SPA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	534	Spanish Drama of the Golden Age	Analyzes principal works and figures of Golden Age Drama (Cervantes, Lope de Vega, Calderón, Tirso de Molina, Moreto, Ruiz de Alarcón) with current theater theory and comedia performance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	536	Generation of 1898	Works of Unamuno, Baroja, Azorín, and their contemporaries, studied against the ideological background of the turn of century in Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	537	Women in Spanish Literature	Major female writers and their texts from Spanish literature (María de Zayas, Ángela Grassi, Concepción Arenal, Emilia Pardo Bazán, Carmen Laforet, Paloma Pedrero) interpreted via current feminist and other critical theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	538	Mexican American Women Writers	Major female figures and works in Spanish or translation by contemporary writers (Zamora, Castillo, Corpi, Anzaldúa, L.D. Cervantes, D. Chávez, Duarte, Cisneros) interpreted via current feminist and other critical theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	540	History of the Spanish Language	Analyzes and discusses the development of Spanish from Vulgar Latin to the present day.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	541	Spanish Language in America	Discusses and analyzes various regional and social varieties of Spanish in the Americas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	542	Studies in the Spanish of the Southwest	Examines bilingualism and the social and regional dialects of Spanish in the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	543	Structure of Spanish	Analyzes and discusses data on selected topics in Spanish morphology, semantics, and syntax.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	544	Spanish Phonology	Surveys problems of Spanish phonology within the context of recent phonological theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	545	Concepts of Literary Criticism	Aims and methods of modern literary scholarship. Discusses major theories of literary analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	552	Studies in Mexican American Film	Major figures and films by contemporary filmmakers (Sylvia Morales, Cheech Marín, Gregory Nava, Lourdes Portillo, Roberto Rodríguez, Evelina Fernández) interpreted via critical film theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	555	Spanish American Modernism	Principal works and figures of literary modernism, 1880-1920, with emphasis on international literary context of the movement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	557	Contemporary Spanish American Poetry	Major works and problems in contemporary poetry and poetics, with emphasis on Paz, Parra, Cardenal, and new poetry since 1960.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	560	Medieval Spanish Literature	Major figures and works of the Middle Ages in Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	561	Golden Age Spanish Prose Fiction	Major figures and works of the 16th and 17th centuries, with emphasis on the picaresque novel.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	562	Golden Age Spanish Poetry	Major figures and works of the 16th and 17th centuries, with emphasis on lyric poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	563	Spanish Romanticism	Principal figures and works of Spanish romanticism, with emphasis on international literary context of the movement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	564	19th-Century Spanish Prose Fiction	Principal figures and works of realism in the 19th-century novel, with emphasis on Galdós.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	565	20th-Century Spanish Drama	Principal figures and works of Spanish dramatic literature from the Generation of 1898 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	566	Generation of 1927	Major poets of the Generation of 1927, with emphasis on works of Lorca, Guillen, Salinas, and Aleixandre.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	567	Contemporary Spanish Novel	Major works of post-Civil War Spanish fiction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	568	Cervantes	Extensive analysis of the prose and theater of Cervantes as a key figure of the Spanish Golden Age.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	569	Studies in Spanish Film	Examines major figures and films in Spanish cinema. Critically interprets films through current film theory, history, and critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	570	Indigenous Literatures of Spanish America	Indigenous literary traditions, with emphasis on Nahuatl, Mayan, and Quechua literatures through readings in Spanish translations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPA	571	Colonial Spanish American Literature	Major figures and works from conquest to independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	572	Spanish American Drama	Major contributions of Spanish American drama, with emphasis on contemporary dramatists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	573	Spanish American Essay	Major works of the essay, within the framework of intellectual history and literary movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	574	Spanish American Vanguard Poetry	Examines poetic developments, 1920-1940, with emphasis on Huidobro, Vallejo, Neruda, and the international context of their works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	575	Contemporary Spanish American Novel	Principal novels of the <i>Nueva Narrativa Hispanoamericana,</i> within the context of contemporary theories of the narrative.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	576	Contemporary Spanish American Short Story	Principal short stories of the <i>Nueva Narrativa Hispanoamericana,</i> within the context of contemporary theories of the narrative.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	577	Regional Spanish American Literature	Figures and works of major national (Peru, Argentina, Chile, and Mexico) and regional (Caribbean) literatures. Topics offered on a rotating basis. May be repeated when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	578	Novel of the Mexican Revolution	Representative works and authors of this genre (Guzmán, Azuela, Urquiza, Muñoz, and Romero), including related or peripheral offshoots in indigenous novels.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	581	Latin American Popular Culture	Studies in selected topics of Latin American popular culture, with emphasis on appropriate academic models for the critical analysis of these materials.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	582	Studies in Latin American Film	Examines the role of film in contemporary Latin American culture; films viewed and analyzed as casebook examples.	N	SEM	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	585	Mexican American Short Story	Major collections and figures in Spanish or translation by contemporary Chicano short story writers (Ulúa, Suárez, Ulibarrí, Soto, Aguilar, P. Martín, Alarcón, R. Sánchez, N. Cantú, J. Sagel, Cisneros) interpreted via current narrative theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	586	Mexican American Novel	Major novels and figures in Spanish or translation by contemporary Chicano novelists (Hinojosa-S., Méndez, Morales, Cota-Cárdenas, Cisneros) interpreted via current narrative theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	587	Mexican American Drama	Major works of Mexican American drama, with emphasis on contemporary playwrights (Valdez, Portillo-T., Morton, Moraga, Gómez-Peña) interpreted via current critical drama theory or other methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	588	Mexican American Essay	Major figures and essays in Spanish or translation by contemporary essayists (Rendón, Anzaldúa, Villanueva, Rodríguez, Mora, Stavans) interpreted via current critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	589	Mexican American Poetry	Major figures and works in Spanish or translation by contemporary poets (Gonzales, Alurista, L.D. Cervantes, B. Zamora, R. Sánchez, Baca, G. Valdés, J. Montoya, G. Velázquez, T. Villanueva, J.F. Herrera, A. Villanueva) interpreted via current critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	601	Latin American Feminist Cultural Production	Latin American feminist theory and studies as viewed through cultural production such as literature, film, photography, art.	N	SEM	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	791	Seminar		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
SPA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.		Students may not sign up for SPA 101, OR 102 if they have received a D or better in SPA 111.
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.		Students may not sign up for SPA 101, OR 102 if they have received a D or better in SPA 111.
SPA	107	Spanish for International Professions I	Accelerated program alternative to SPA 101, 102 sequence. Functional approach to needs of international professions. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	8.		
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	207-W	Spanish for International Professions II	Continuation of SPA 107, alternative to SPA 201 and 202 sequence. Expansion of communicative proficiency in specific areas of international professions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	8.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPA	311	Spanish Conversation	Designed primarily for nonmajors to promote vocabulary building and communicative expression in Spanish through discussions based on cultural readings.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	312	Spanish Conversation	See SPA 311.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	Pre-requisites: Must have completed SPA 202 with a grade of C or greater.
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	
SPA	325-W	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: Must have completed SPA202 with a grade of C or greater.
SPA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	412	Advanced Conversation and Composition	Oral and written Spanish communication skills, with particular attention given to developing fluency and facility. Required of majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	
SPA	413	Advanced Spanish Grammar	Intensive analysis of the Spanish language. Required of teaching majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	
SPA	425	Spanish Literature	Surveys Spanish literature from its beginning to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-rquisites: Must have completed SPA 325 with a grade of C or greater.
SPA	426	Spanish Literature	Surveys Spanish literature from 1700 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
SPA	427	Spanish-American Literature	Surveys major works, figures, and movements from Colonial period to 1880.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	428-W	Spanish-American Literature	Surveys major works, figures, and movements from 1880 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	464	Mexican American Literature	Representative literature in Spanish and English by Mexican Americans, emphasizing sociocultural as well as literary values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & C	
SPA	472-W	Spanish-American Civilization	Growth of the institutions and cultures of Spanish-American people.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: Must have completed SPA 325 with a grade of C or greater.
SPA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
SPA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
SPA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412

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SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	111	Fundamentals of Spanish	Primarily for students with two years of high school Spanish who need review to enter second-year study. Credit is allowed for only SPA 111 or both SPA 101 and 102. fee	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		You may not sign up for SPA 111 if you have received a D or better in SPA111,201,202,203,204,311,312,313,314,315,316,325,412
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
SPA	325	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SPC	555	Inclusive Practices for Diverse Learners	Adapting instruction and assessment to meet the needs of all learners in inclusive settings. Includes the creation of plans to address challenging classroom behaviors.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SPC	312	Advanced Foundations of High-Incidence Disabilities	Emphasizes the needs of students with mild to moderate mental retardation, learning disabilities, emotional disturbances, and physical and other health impairments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	320	Behavior Analysis and Management	Development of functional analyses and implementation of behavior intervention plans emphasizing positive behavior supports in the classroom environment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
SPC	420	Special Education Assessment	Assessment procedures for determining eligibility and identifying educational needs of students with disabilities, including legal issues and current trends. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	425	Advanced Inclusion Strategies and Professional Practices	Applies inclusive strategies during student teaching. Emphasizes structured reflection and self-assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
SPC	440	Special Education Program Planning	Overview of legal and cultural issues; the development of curriculum, Individual Education Plans; evaluation of student progress, and instructional effectiveness. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	450	Secondary Content Methods and Accommodations	Examines programs, curricula, and accommodations for secondary students with disabilities. The development, implementation, and evaluation of transition plans.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	455	Advanced Methods and Accommodations	Orientation to philosophies and principles of curriculum development. Selection, evaluation, and adaptations of curricula and instructional methods for pull-out and inclusive settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	460	Consultation and Collaboration in Inclusive Environments	Examines and applies theories and practices used to promote consultation and collaboration with all stakeholders in inclusive environments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
SPC	475	Field Experience in Inclusive Settings II	Applies course content while working with students with disabilities in inclusive settings. Emphasizes making and evaluating accommodations. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
SPC	480	Student Teaching with Students with Disabilities	Supervised teaching in inclusive settings. Capstone practicum in assessment, program planning, curriculum, instruction, collaboration, and classroom and behavior management. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	10-12		
SPC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SPC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	512	Individuals with Mental Retardation	Etiology, diagnosis, and management of individuals with mental retardation. Current trends in prevention, programming, and teacher preparation. Not recommended for students who have completed SPE 312.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	514	Bilingual/Multicultural Aspects of Special Education	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	515	Methods for the Remediation of Learning Problems of Exceptional Children	Methods and materials for remediating the basic academic problems of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	519	Inclusion Methods: Science, Social Studies, and Mathematics	Instructional strategies used for delivery of science, social studies, and mathematics with exceptional children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	524	Effective Classroom Behavior Management	Organization and delivery of instruction including formative evaluation and techniques of academic behavior management for exceptional children. Requires practicum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	525	Social Behavior Interventions	Analysis and intervention into social behavior problems of exceptional students. Focuses on strategies to change maladaptive social behavior. Requires practicum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	531	Methods of Applied Behavior Analysis for Exceptional Populations	Behavior management approaches for classroom behavior of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPE	536	Characteristics of Children with Behavioral Disorders	Variables contributing to behavior patterns of behaviorally disordered children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	537	Instructional Management: Reading and Language Arts	Instructional strategies used for delivery of reading and language arts with exceptional children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPE	548	Cross-Categorical Foundations: LD, ED, MR, & PI/OHI	Foundations course compares cognitive, motor, and affective developmental and educational issues across LD, ED, MR, and PI/OHI.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	550	Inclusion Practices in Science and Mathematics	Facilitates and expands knowledge in the practical application of strategies meeting diverse needs of learners in science and mathematics classrooms	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2.		Pre-requisites: Graduate students only
SPE	551	Teaching Young Children with Special Needs	Methods, materials, and curriculum for preschool and primary-aged children with special needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	554	The Parent/School Partnership	Includes knowledge and procedures for involvement and training of parents and caregivers of preschool and severely handicapped individuals. Requires field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	561	Characteristics/Diagnosis of Learning Disabilities	Theories related to learning disabilities, including identification and characteristics.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	566	Applied Behavior Analysis in Inclusive Settings	Definitions, characteristics, assumptions, and basic principles of behavioral analysis as applied to social skills in inclusion settings.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Non-degree graduate or graduate student
SPE	574	Educational Evaluation of Exceptional Children	Design and statistical considerations of normative and criterion-referenced tests. Collection, recording, and analysis of data from formative evaluation.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	575	Survey and Current Issues in the Education of Exceptional Children	Mainstreaming, noncategorical, financing, legal diagnostic, labeling, legislative, and other critical and controversial issues related to the education of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	577	Inclusive Teaching and Learning	Develops successful learning environments for students using evidence-based instructional approaches, collaborative teaching models, and culturally responsive practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	582	Classroom Research with Exceptional Children	Introduces interpreting research. Specific research techniques with primary emphasis on classroom research, including applied behavior analysis.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	585	Creativity: Research and Development	Explores nature of creativity in terms of philosophical underpinnings, empirical evidence, human development, self-actualization, and the ecology surrounding the creative event.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	586	Advising the Gifted Child	Focuses on educational planning and guidance, social and emotional development, and family problem solving regarding needs of gifted children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	588	The Gifted Child	Gifted children's characteristics, identification, needs, school and home environments, definitions, and misunderstandings. Research by Pressey, Stanley, Terman, and others.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	589	Methods in Teaching the Gifted	Methods in teaching elementary and secondary school gifted children, including individualized and computer-assisted instruction, team teaching.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be graduate student in Special Education
SPE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be a graduate student in Special Education
SPE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be a graduate student in Special Education
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisites: Graduate students only
SPE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be a graduate student in Special Education
SPE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be a graduate student in Special Education
SPE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Must be a graduate student in Special Education
SPE	702	Conducting Research with Special Populations	Considers concepts and methodologies for conducting research with any aspect of special education, including gifted and multicultural.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Must be Graduate(doctoral) student in Special Education
SPE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite:Must be a graduate student (doctoral) in Special Education
SPE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be a grad(doctoral) student in Special Education
SPE	587	Controversies in Educating the Gifted	In-depth analysis of major controversies in educating the gifted, including nature/nurture, the role of mental tests, and sex differences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
SPE	316	Introduction to Physical Disabilities and Other Health Impairments	Introduces various physical disabilities and other health impairments with an emphasis on service delivery in schools and communities.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	512	Individuals with Mental Retardation	Etiology, diagnosis, and management of individuals with mental retardation. Current trends in prevention, programming, and teacher preparation. Not recommended for students who have completed SPE 312.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	514	Bilingual/Multicultural Aspects of Special Education	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	515	Methods for the Remediation of Learning Problems of Exceptional Children	Methods and materials for remediating the basic academic problems of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	519	Inclusion Methods: Science, Social Studies, and Mathematics	Instructional strategies used for delivery of science, social studies, and mathematics with exceptional children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	520	Reading and Communication Strategies for Individuals with Autism	Understands and applies reading and communication strategies with individuals with autism and related disorders. Includes historical, diagnostic, and identification issues.	N	DIS	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must be non-degree graduate or graduate student
SPE	521	Foundations of Autism Spectrum Disorders	Increases the understanding of characteristics of individuals with autism.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate students only
SPE	531	Methods of Applied Behavior Analysis for Exceptional Populations	Behavior management approaches for classroom behavior of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate students only
SPE	532	Systems, Policies, and Program Practices	Analyzes historical, political, social, and legal factors impacting special education services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	533	Issues and Foundations in Special Education	Foundational themes and issues in special education. Critical issues related to characteristics of students with mild emotional disturbance, behavior disorders, learning disabilities, mental retardation, orthopedic, and other health impairments.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	534	Assessment and Evaluation for Children with Special Needs	Discusses assessment practices related to student eligibility and program planning. Emphasizes authentic, individualized, interdisciplinary practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	535	Curricula, Methods, Technology, and Adaptations in Special Education	Develops strategies for effective adaptation of special education and general education curriculum through use of technology.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	536	Characteristics of Children with Behavioral Disorders	Variables contributing to behavior patterns of behaviorally disordered children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	537	Instructional Management: Reading and Language Arts	Instructional strategies used for delivery of reading and language arts with exceptional children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	540	Family Centered Practices	Issues associated with families and family systems. Effects of disabilities on families. Strategies for family support and empowerment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	541	Consultation Frameworks and Issues	Models, activities, and roles of educational consultants working with families, professionals, and support personnel across disciplines and agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	543	Issues in the Development of Infants and Young Children	Factors and conditions that affect early development. Strategies for promoting attachment, self-regulation, resilience, adaptation, and coping.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	544	Assessment and Evaluation of Infants and Young Children	Developmental assessment and related program planning for infants and young children. Emphasizes authentic, individualized, family-centered and culturally competent approaches.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	545	Curricula, Methods, Technology, and Adaptations for Infants and Young Children	Developmentally appropriate practices. Serving young children with diverse abilities in natural, inclusive settings. Emphasizes cognitive development, social competence.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	546	Communication, Language, and Early Literacy	Early communication development and language acquisition. Facilitating communicative competence and early literacy for infants and young children with diverse abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	547	Supporting Motor Development	Early sensorimotor development. Strategies to facilitate the acquisition of motor skills and address the needs of children with motor disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	548	Cross-Categorical Foundations: LD, ED, MR, & PI/OHI	Foundations course compares cognitive, motor, and affective developmental and educational issues across LD, ED, MR, and PI/OHI.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must have completed SPE 512 and 574 with a grade of C or better
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must have completed SPE 512 and 574 with a grade of C or better
SPE	554	The Parent/School Partnership	Includes knowledge and procedures for involvement and training of parents and caregivers of preschool and severely handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	561	Characteristics/Diagnosis of Learning Disabilities	Theories related to learning disabilities, including identification and characteristics.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	574	Educational Evaluation of Exceptional Children	Design and statistical considerations of normative and criterion-referenced tests. Collection, recording, and analysis of data from formative evaluation.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	575	Survey and Current Issues in the Education of Exceptional Children	Mainstreaming, noncategorical, financing, legal diagnostic, labeling, legislative, and other critical and controversial issues related to the education of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	577	Inclusive Teaching and Learning	Develops successful learning environments for students using evidence-based instructional approaches, collaborative teaching models, and culturally responsive practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	578	Student Teaching in Special Education	Y grade only. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate students only
SPE	578	Student Teaching in Special Education	Y grade only. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
SPE	578-W	Student Teaching in Special Education	Student teaching in special education setting for students in the MEd with Concentration in Teacher Certification. Lab, field experience. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	12.		
SPE	579	Apprentice Teaching in Special Education	Apprentice teaching in special education setting. Must be taken four times for a total of 12 semester hours. Lab, field experience. Fee.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
SPE	582	Classroom Research with Exceptional Children	Introduces interpreting research. Specific research techniques with primary emphasis on classroom research, including applied behavior analysis.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: College of Teacher Education & Leadership MED or Doctoral student
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SPE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	301	Assistive Technology in Education	Examines the use of assistive technology in educational settings to achieve educational, personal, and social goals of students with disabilities.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	303	Foundations of LD and ED	Examines history, etiology, assessment, classification, programming, accommodations, and inclusion for students with disabilities LD and EH	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	304	Foundations of MR and PD/OHI	Examines effective assessment, early intervention, programming, instruction, modifications, self determination, and inclusion for students with disabilities MR and PD/OHI.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	309	Basic Special Education Curriculum	Introduces curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	310	Professional Practices and Foundations in Special Education	Foundational themes and issues in special education. Discusses each disability within the mild cross-categorical area in relation to foundational themes and issues relating to professional practices in special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Education student, SPE 317, SPE 320, SPE 322, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	310	Professional Practices and Foundations in Special Education	Foundational themes and issues in special education. Discusses each disability within the mild cross-categorical area in relation to foundational themes and issues relating to professional practices in special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	312	Mental Retardation	Characteristics and assessment specific to mental retardation. Emphasizes terminology, development, educational programming, and therapeutic procedures.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; SPE 314 and SPE 361 with C or better or currently enrolled; SPE 496 with Y grade or currently enrolled; Co-requisites: SPE 336, SPE 412, SPE 413 and SPE 496
SPE	314	Introduction to Bilingual/Multicultural Special Education	Theoretical background and practical application of general issues regarding the education of bilingual/multicultural handicapped children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	317	Special Education for Culturally and Linguistically Diverse Children and Youth	General issues and practical applications regarding the education of culturally and linguistically diverse students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Education student, SPE 310, SPE 320, SPE 322, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	317	Special Education for Culturally and Linguistically Diverse Children and Youth	General issues and practical applications regarding the education of culturally and linguistically diverse students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	318	Family-School Collaboration	Explores relationships between families of children with special needs and professionals in educational institutions and community agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	318	Family-School Collaboration	Explores relationships between families of children with special needs and professionals in educational institutions and community agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 423, SPE 424, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	320	Assessment and Evaluation in Special Education	Norm-referenced, criterion-referenced, and authentic strategies to determine eligibility, plan individualized programs, and monitor progress of students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
SPE	320	Assessment and Evaluation in Special Education	Norm-referenced, criterion-referenced, and authentic strategies to determine eligibility, plan individualized programs, and monitor progress of students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Co-requisites: Special Education student, SPE 310, SPE 317, SPE 322, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	322	Behavior Management and Consultation	Develops and implements analysis, intervention, and consultation strategies for effective management of classroom behavior for students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	322	Behavior Management and Consultation	Develops and implements analysis, intervention, and consultation strategies for effective management of classroom behavior for students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Education student, SPE 310, SPE 317, SPE 320, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	336	Behavioral and Emotional Problems in Children	Characteristics and assessment specific to emotionally and behaviorally disturbed children. Emphasizes terminology, development, and educational programming.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; SPE 314 and SPE 361 with a C or better or currently enrolled; SPE 496 with Y grade or currently enrolled; Co-requisites: SPE 312, SPE 412, SPE 413 and SPE 496
SPE	361	Introduction to Learning Disabilities	Characteristics and assessment specific to learning disabilities. Emphasizes terminology, development, and educational programming.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	396	Field Experience I	Applies course content while working with students with disabilities in inclusive settings. Emphasizes classroom and behavior management. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
SPE	397	Field Experience II	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Special Education student, SPE 310, SPE 317, SPE 320, SPE 322 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	397	Field Experience II	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
SPE	411	Parent Involvement and Regulatory Issues	Emphasizes parent and school relations through effective communication and state and federal regulations impacting services for the handicapped.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	411	Parent Involvement and Regulatory Issues	Emphasizes parent and school relations through effective communication and state and federal regulations impacting services for the handicapped.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student with a cumulative GPA of at least 2.50 AND have completed with a grade of C or better in SPE412 and 413 and a Y grade in SPE496 AND be co-enrolled in SPE414,415,419 and 496
SPE	412	Evaluating Exceptional Children	Normative and criterion-referenced diagnostic techniques, including formative evaluation. Emphasizes application. Requires daily practicum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	413	Methods in Language, Reading, and Mathematics for Exceptional Children	Methods, techniques, and materials for use in prescriptive teaching. Requires daily practicum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	414	Instructional Management and Strategies: Reading and Writing	Organization and delivery of instruction, including formative evaluation techniques. Instructional techniques of reading and writing. Requires regular participation in a field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student with a cum GPA of at least 2.50 AND have earned a grade of C or better in SPE412 and 413 and a Y grade in SPE496 AND be co-enrolled in SPE411,415,419 and 496 or SPE494 and 496
SPE	415	Classroom and Behavior Management	Analysis and intervention into social behavior problems of exceptional populations. Requires regular participation in a field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student with a cumulative GPA of at least 2.50 AND have completed with a grade of C or better in SPE412 and 413 and a Y grade in SPE496 AND be co-enrolled in SPE411,414,419 and 496
SPE	416	Quality Practices in the Collaborative Classroom	Develops skills, strategies, and a knowledge base for preservice teachers in building collaborative partnerships with special educators. May be repeated for credit.	Y	FLD	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisites: Initial Teacher Certification Program Admission
SPE	417	Inclusion Practices at the Secondary Level	Applies curricular practice and how preservice teachers work with students with special needs in middle and secondary levels.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	418	Quality Practices in the Collaborative Indigenous Classroom	Develops skills, strategies, and knowledge for preservice teachers, focusing on indigenous children, while building collaborative partnerships with special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	419	Instruction in Content Areas: Science and Social Studies	Develops and implements instructional methods and learning strategies for students with special needs related to science and social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student and have a cumulative GPA of at least 2.5

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	423	Technology & Instructional Methods in Language, Reading, & Mathematics - Mild/Moderate Disabilities	Effective use of technology; instruction and assessment of performance in language, reading, and mathematics for students with mild/moderate disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	423	Technology & Instructional Methods in Language, Reading, & Mathematics - Mild/Moderate Disabilities	Effective use of technology; instruction and assessment of performance in language, reading, and mathematics for students with mild/moderate disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 318, SPE 424, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	424	Methods of Cross-Categorical Special Education	Assessment and instructional methods for students with mild to moderate retardation, learning disability, emotional disabilities, and physical/health impairment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 318, SPE 423, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	424	Methods of Cross-Categorical Special Education	Assessment and instructional methods for students with mild to moderate retardation, learning disability, emotional disabilities, and physical/health impairment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	431	Collaborative Teaching Methods for General Education Classroom Environments	Methods and issues in cooperative teaching for special education students in general education classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 318, SPE 423, SPE 424, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	431	Collaborative Teaching Methods for General Education Classroom Environments	Methods and issues in cooperative teaching for special education students in general education classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	440	Professional Seminar in Special Education	Examines critical issues in the delivery of special education services. Emphasizes self reflection and professional development.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	440	Professional Seminar in Special Education	Examines critical issues in the delivery of special education services. Emphasizes self reflection and professional development.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Ed student; SPE 479 OR PDS (Professional Development School) student as appropriate
SPE	478	Student Teaching in Special Education	Student teaching in special education setting.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Co-requisites: Special Ed student; SPE 440 OR PDS (Professional Development School) student as appropriate
SPE	478	Student Teaching in Special Education	Y grade only. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SPE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SPE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisites: Must be an Honors student
SPE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	493	Honors Thesis		N	THE	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SPE	493	Honors Thesis		N	THE	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	496	Field Experience III	Applies course content in a special education setting. Emphasizes observation pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Special education student, SPE 318, SPE 423, SPE 424, SPE 431 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	496	Field Experience	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Initial Teacher Certification Program Admission
SPE	496	Field Experience III	Applies course content in a special education setting. Emphasizes observation pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
SPE	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SPE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SPE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SPF	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
SPF	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	298	Honors Directed Study		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	301	Culture and Schooling	For the professional teacher preparation program. Overview of the cultural, social, and political milieus in which formal schooling takes place in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	L	Pre-requisites: Education or BIS students or completion of first year composition
SPF	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	401	Teachers and the Law	For the professional teacher preparation program. Analysis and interpretation of classroom behavior from perspectives derived from philosophy, social science, and law.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-2		
SPF	402	Teachers and the Law in Indigenous Communities	Examines the legal rights of students, teachers, and the district while preventing injury to students in indigenous communities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
SPF	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
SPF	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6	L	Pre-requisites: Must be an Honors student
SPF	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	497	Honors Colloquium		Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-7		
SPF	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
SPF	501	Culture and Schooling	Introduces social science concepts of culture and the cultural milieu in which schooling takes place in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2-3		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	510	Intro to Organization and Administration of American Public Schools	Curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	511	School and Society	Interrelationship of school and society and the role of education in social change.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	515	Gender and Education	Methods and materials for remediating the basic academic problems of exceptional children. Prerequisite: admission to MEd in Special Education program.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	520	Cultural Diversity in Education	Philosophic and sociological investigation of cultural diversity in the United States and how it relates to education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	530	Sociology of Education	Current issues in the sociology of education: stratification, social mobility.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	534	Foundations of Educational Inquiry	Overview of the nature of inquiry examining the philosophy of science and social science, approaches to knowing in the humanities. Credit is allowed for only SPF 534 or 634.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	544	Philosophical Foundations of Education	Theories of education in ancient, medieval, and modern classical and contemporary philosophies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPF	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	597	Teacher and the Law	For the professional teacher preparation program. Analysis and interpretation of classroom behavior from perspectives derived from philosophy, social science and the law.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-2		
SPF	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
SPF	603	Visual Ethnography in Education	Advanced qualitative methods class combining ethnography with the use of video and still photography in data gathering and presentation.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	612	Evaluation Theory	Explores the major theories of evaluation (inquiry leading to value judgments) in educational policy through examination of cases.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	622	Organizational Theory	Major views of organizations and their influence on role definition and participant behaviors in educational organization.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	634	Foundations of Educational Inquiry	Overview of the nature of inquiry examining the philosophy of science and social science, approaches to knowing in the humanities. Credit is allowed for only SPF 634 or 534.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	677	Foundations of Educational Reform Movements	Historical and contemporary survey of curricular reform movements in the United States with emphasis on equity and social justice issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	685	Education in Global Contexts	Global perspectives on education in contemporary society with emphasis on social, political and economic factors that affect access and equity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-6		
SPF	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPF	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	711	Social and Historical Foundations of Education	Explores the history of sociological thought, especially theories of the relations between educational systems and the social/cultural world.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	510	Intro to Organization and Administration of American Public Schools	Curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPF	301	Culture and Schooling	For the professional teacher preparation program. Overview of the cultural, social, and political milieus in which formal schooling takes place in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisites: Education or BIS students or completion of first year composition
SSH	100	Introduction to Global Health	Current global health crises, challenges; tools for describing health and disease; ecological, cultural, social, historical, political-economic factors; comparative health systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
SSH	200	Food and Culture	Uses the case of food to explore how culture shapes human well-being, including the impact of political-economic systems on what we have and chose to eat.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & C	Pre-requisites: ENG 101, 105, 107, or ENG 111. Students who have credit for ASB 200, may not enroll in SSH 200
SSH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	301	Global History of Health	Examines disease and health transitions in broadest context of human history, from primate ancestors to hunter-gatherers, to transcontinental contact, colonialism, industrialization, urbanization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better or currently enrolled. If you have credit in ASB 301, you may not enroll in SSH 301
SSH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	400	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	Pre-requisites: ASB 100 (or SSH 100) or ASB 102 with D or better
SSH	401	Health and Human Biology	Health and biology in contexts of human evolutionary history, biological and cultural variation, lab-based health status assessments, core concepts of human variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASB 100 or ASM 104 with D or better or currently enrolled; SSH 100 with D or better or currently enrolled
SSH	402	Community Partnerships for Global Health	Supervised community-based activities relevant to a global perspective on contemporary U.S. health. Addresses community-identified issues using appropriate methodologies.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9	SB	Pre-requisites:SSH 400 or ASB 440 with a grade of D or better or currently enrolled. If you have credit in ASB 452, you may not sign up for SSH 402

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SSH	403	Cross-Cultural Studies in Global Health	Direct investigations of society, ecology, and health in international settings.	N	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-6	SB & G	Pre-requisites:SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit for ASB 443, you may not enroll in SSH 403
SSH	405	Senior Seminar in Global Health	Students create health solutions, integrating theoretical, methodological, ethical, and experiential learning related to the global health major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
SSH	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: Students who have credit for ASM 414, or SOS 414, may not enroll in SSH 414. Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
SSH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
SSH	492	Honors Directed Study		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
SSH	493	Honors Thesis		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
SSH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
SSH	510	Health: Social and Biocultural Theories	Comparative and critical approaches to complexities of health, drawn from anthropology and related fields Focuses on theories that address how social and cultural factors shape human health.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	511	Ethics in Health Social Science Research	Ethics and social justice issues in community-based health research relevant to health social science, including informed consent, community involvement, control, advocacy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: SSH 510 or ASB 510 completed with D or better or currently enrolled
SSH	512	Social Science Applications in Community Health	Supervised community-based activities relevant to improvement of health through application of social science theory.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9		Pre-requisites: ASB 511 or SSH 511 with D or better. Must be graduate student
SSH	513	Research Design and Proposal Writing in Health Social Science	Research design, piloting, and proposal writing for social scientists conducting health research.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASB 500 completed with D or better or currently enrolled; SSH 511 or ASB 511 completed with D or better or currently enrolled
SSH	514	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
SSH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
STP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Prerequisite: Must be a freshman with 25 or less total earned hours
STP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	220	Conceptual Statistics	Treats the concepts and vocabulary needed to evaluate statistical reports on health, technology, and society. Aggressively emphasizes understanding over computation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	231	Statistics for Life Science	Concepts and methods of statistics; display and summary of data, interval estimation, hypothesis testing, correlation, regression. Applications to biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Prerequisites: MAT 117 or 142 with C or better
STP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
STP	326	Intermediate Probability	Probability models and computations, joint and conditional distributions, moments, and families of distributions. Topics in stochastic processes, simulation, and statistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 210 or 251 or 265 or 270 with C or better
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 117 or MAT 142 with C or better
STP	421	Probability	Laws of probability, combinatorial analysis, random variables, probability distributions, expectations, moment-generating functions, transformations of random variables, and central limit theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 272 or 267 with C or better
STP	425	Stochastic Processes	Markov chains, stationary distributions, pure jump processes, 2-D order processes, and other topics in stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 342 (or 343); STP 421 with C or better.
STP	427	Mathematical Statistics	Limiting distributions, interval estimation, point estimation, sufficient statistics, and tests of hypotheses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: STP 421 with C or better
STP	429	Experimental Statistics	Statistical inference for controlled experimentation. Multiple regression, correlation, analysis of variance, multiple comparisons, and nonparametric procedures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: STP 420 with C or better
STP	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
STP	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
STP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
STP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
STP	525	Advanced Probability	Measure-theoretic foundations of probability, distribution functions and characteristic functions, laws of large numbers and central limit theorems, conditional probabilities, martingales, and topics in stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	526	Theory of Statistical Linear Models	Multinomial distribution, distribution of quadratic forms, full and nonfull rank models, generalized inverses, unbalanced data, variance components, and the large sample theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	527	Statistical Large Sample Theory	Types of convergence, central limit theorems, theory of maximum likelihood estimation, efficiency, robustness, influence functions, theory of bootstrap methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	530	Applied Regression Analysis	Method of least squares, simple and multiple linear regression, polynomial regression, analysis of residuals, dummy variables, and model building.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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STP	531	Applied Analysis of Variance	Factorial designs, balanced and unbalanced data, fixed and random effects, randomized blocks, Latin squares, analysis of covariance, and multiple comparisons.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	532	Applied Nonparametric Statistics	One-sample test, tests of 2 or more related or independent samples, measures of correlation, and tests of trend and dependence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	533	Applied Multivariate Analysis	Discriminant analysis, principal components, factor analysis, cluster analysis, and canonical correlation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	534	Applied Discrete Data Analysis	Models for discrete and count data, measures of association, and log-linear and regression models for contingency tables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	535	Applied Sampling Methodology	Simple random, stratified, cluster sampling; variance estimation in complex surveys; nonparametric superpopulation approaches; nonresponse models; computational methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
STP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
STP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
STP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
STP	220	Conceptual Statistics	Treats the concepts and vocabulary needed to evaluate statistical reports on health, technology, and society. Aggressively emphasizes understanding over computation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	226-W	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: Must have completed MAT117 or MAT142 with a grade of C or greater or be currently enrolled.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
STP	300	Introduction to Probability	Probability models and computations, joint and conditional distributions, moments, families of distribution, stochastic processes, simulation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT210 with a grade of C or greater or be currently enrolled.
STP	326	Intermediate Probability	Probability models and computations, joint and conditional distributions, moments, and families of distributions. Topics in stochastic processes, simulation, and statistics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	421	Probability	Laws of probability, combinatorial analysis, random variables, probability distributions, expectations, moment-generating functions, transformations of random variables, and central limit theorem.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
STP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
STS	101	Introduction to Science, Technology, and Society	Overview of the basic issues, definitions, and literature involved in the study of science, technology, and human systems. Credit is given for only STS 304 or 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	110	Global Technology and Development	Introduces awareness and understanding of how technology, processes of globalization, and society influence one another. Credit is given for only STS 317 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	Credit is allowed for only STS 110 or 317
STS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	301	Research in Science and Technology Studies	Examines methods of inquiry in the social sciences with emphasis on STS, including both qualitative and quantitative approaches, philosophy of science, and scientific revolutions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	302	Philosophy of Science and Technology	Focuses on the nature and implications of science as a body of knowledge, set of practices, specific methods, and how these differ from other human enterprises and activities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: ENG 101, ENG 105, ENG 107 or ENG 111 with C or better
STS	303	History of Technology	Examines the history of technology within social, cultural, political, and economic contexts and the critical relationship between society and technology	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	H	
STS	304	Science, Technology, and Society	Overview of the major issues associated with the study of science, technology, and human systems, including theoretical approaches. Credit is given for only STS 304 or 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	305	Science and Social Theory	Explores the different theoretical traditions that inform social interpretations of science, including awareness of the historical traditions that define these interpretations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	306	Social Effects of Science and Technology	Examines the effects of science and technology on social life and the contexts in which those effects manifest.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	317	Science, Technology, and Global Engagement	Overview of international issues associated with both the development and deployment of technologies, including matters concerning international relations. Credit is given for only STS 317 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	Credit is allowed for only STS 110 or 317
STS	318	Science, Technology, and Government	Examines the foundations of the interrelationship of science, technology, and democratic governance, with emphasis on the American political system.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	325	Science, Technology, and Public Policy	Examines the interaction of science and technology with American domestic policy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	328	Science, Technology, and Culture	Overview of technology and international cultures, including cultural definitions of science and technology. May intersect issues of culture and religion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	329	Cultivating Technology in Newly Industrializing Countries	Covers specific issues relating to building technological capability in newly industrializing countries.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	330	Information Technology and Globalization	Examines the intersection of advances in information technology and globalization and the impact of these processes on human systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	331	Ethical Issues in Science and Technology	Examines the interconnections between values and science and technology by examining such topics as computers and privacy, medical malpractice, reproductive technologies, patents, and hazardous facilities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	332	Global Issues in Science and Technology	Examines contemporary international debates in science and technology and how those issues impact globalization.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
STS	364	Science, Technology, and National Security	Examines how changing technologies impact all aspects of national security policy in the United States.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites:STS 101 and STS 301 with a grade of D or better
STS	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	401	Statistics in Science and Technology Studies	Introduces statistical techniques for the social sciences, including the role and rationale of statistics, descriptive measures, associational measures, and inferential statistics.	N	LEC	N	GRD	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:Completed STS 301 with a grade of D or better
STS	425	Law, Values, Science, and Technology	Examines the interconnections of law, values, and science and technology with a view to establishing their reciprocal relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
STS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		
STS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
SWG	501	Micro Human Behavior in the Social Environment	Human behavior in the social environment throughout the life cycle, analyzing theories of human development within an integrative multidimensional framework.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite: MSW or DSW student
SWG	502	Macro Human Behavior in the Social Environment	Human behavior in the social environment, focusing on groups, organizations and communities and examining theoretical perspective in a macro context.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite: MSW or DSW student
SWG	503	Development of Families in Oppressive Context	Addresses the development of healthy families and children. Explores essential tasks of human development and theories that inform practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be admitted to MSW.
SWG	503	Development of Families in Oppressive Context	Addresses the development of healthy families and children. Explores essential tasks of human development and theories that inform practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	504	Theories of Human Behavior	Addresses development of healthy adults and human behavior in groups, organizations, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; SWG 503 with a C or better or currently enrolled
SWG	510	Foundation Practice I	Basic social work methods with emphasis on the problem-solving process as it pertains to individuals, families, and small groups.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student.
SWG	511	Foundation Practice II	Theory and methods of direct practice with groups and selected practice models.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student; SWG 510 with C or better
SWG	512	Values and Ethics of Social Work Practice I	Develops a basic understanding of diverse ethical systems and their application to a broad range of human problems in various social and cultural contexts.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW student
SWG	512	Values and Ethics of Social Work Practice I	Develops a basic understanding of diverse ethical systems and their application to a broad range of human problems in various social and cultural contexts.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	513	Social Work Generalist Practice II	Building on SWG 512, continues to develop and apply a generalist framework of social work practice. Examines theories of practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites:Must be admitted to the MSW and have completed SWG 512 with a grade of C or greater
SWG	519	Research Methods in Social Work	Conceptual foundations and methods of nomothetic research in social work. Includes problem identification, hypothesis formulation, measurement, sampling, and experimental design.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student.
SWG	520	Research and Advocacy	Develops knowledge and skills needed to utilize and engage in social research related to advocacy issues and the evaluation of social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	531	Social Policy and Services I	Conceptual, analytical, and historical perspectives on the social welfare institution. Emphasizes poverty and inequality. Principles of policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral of Social Work student
SWG	532	Policy and Social Change	Overview of the history, development, pertinent concepts, skills, and definitions associated with social welfare problems and policies.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		

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SWG	532	Policy and Social Change	Overview of the history, development, pertinent concepts, skills, and definitions associated with social welfare problems and policies.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	533	Diversity and Oppression in a Social Work Context	Explores issues of social inequality related to disability, ethnicity, gender, race, and sexual orientation. Emphasizes populations of the Southwest.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral Social Work student.
SWG	534	Diversity and Underserved Populations	Examines issues of privilege and oppression, including their impact on the social work process, with the goal of developing a culturally competent master's-level social worker.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	534	Diversity and Underserved Populations	Examines issues of privilege and oppression, including their impact on the social work process, with the goal of developing a culturally competent master's-level social worker.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	540	The Professional Experience I	150 clock hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; Co-requisite: SWG 512
SWG	540	The Professional Experience I	150 clock hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; Co-requisite: SWG 512
SWG	541	Field Practicum I	With SWG 542, two consecutive semesters (480 hours) of supervised social work practice in an approved placement. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Master or Doctor Social Work student; Pre or Co-requisite: SWG 510 with a grade of C or greater if completed
SWG	542	Field Practicum II	See SWG 541. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG510, SWG541, and SWG 511 with a C or greater or be currently enrolled (or be enrolling in SWG511)
SWG	543	The Professional Experience II	250 hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Master of Social Work student; SWG 512 with C or better; Co-requisite: SWG 513
SWG	550	Co-Occurring Disorders	Provides sound theoretical and practical orientations to working with persons who have co-occurring disorders.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	551	Crisis Intervention	Covers the basics of crisis intervention in social work practice, along with applications to several different populations.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	552	Issues in School Social Work	Provides knowledge and skills necessary to implement effective social work services in a school setting.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	553	Social Work with American Indians	Introduces social work issues relevant to Native Americans. Explores effective methods with Native American clients.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	554	Substance Abuse	Psychological and sociocultural determinants of substance abuse. Overview of social policies and treatment approaches.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	555	Social Work Practice Skills with Latinos	Focuses on communication skills necessary and appropriate for social work practice with Spanish-speaking clients and their families. Credit is allowed for only SWG 555 or SWU 455.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	557	Southwest Borderland Immigration Issues	Reviews immigration history, trends, policies, and legislation. Focuses on immigrant experience from economic, educational, social, political, familial perspectives in Southwestern U.S. Credit is allowed for only SWU 557 or SWG 457.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Masters or Doctoral Social Work student
SWG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	585	Macro Social Work Practice	Examines communities and human service organizations as social systems. Introduces strategies for initiating planned change.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral Social Work student
SWG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		Pre-requisite: Master or Doctor Social Work student.
SWG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		

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SWG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		Pre-requisites: Must be Master Social Work student.
SWG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Social Work	1-12		
SWG	600	Foundation for Advanced Practice	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: Master Social Work student.
SWG	603	Social Work Practice in Health/Behavioral Health Settings	Advanced social work practice in health and behavioral health settings, focusing on enhancement of client functioning and quality of life.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 502; SWG 511; SWG 542
SWG	604	Advanced Social Work Practice in Health	Addresses the crucial social work practice issues of health and healthcare in the new millennium.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 603
SWG	606	Assessment of Mental Disorders	Theories and concepts of mental health and illness. Attention to classification systems and nomenclature used in assessing mental disorders.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student; SWG 502 with C or better
SWG	608	Ecological Approach to Practice with Children, Youth, and Families	Provides a theoretical and practical orientation to working with children, youth, and families from an ecological strengths perspective.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: SWG 502; SWG 511; SWG 542
SWG	609	Advanced Social Work Practice with Child Welfare Families	Focuses on substance abuse, family violence, and serious mental illness in practice with families and children in the child welfare system.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 608 completed with D or better or currently enrolled
SWG	610	Advanced Social Work Practice III	Assists students in advanced theoretical understanding and practice with families, groups, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW or MSW Adv Standing student; Co-Requisite: SWG 693 and 645
SWG	610	Advanced Social Work Practice III	Assists students in advanced theoretical understanding and practice with families, groups, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	611	Social Work with Families	Theory, concepts, and skills for working with diverse family populations. Emphasizes a systems and integrative approach.	N	LEC	N	OPT	College of Public Programs	School of Social Work	2-3		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 510 completed with C or better; SWG 511 completed with C or better or currently enrolled; SWG 541 and SWG 542 completed with Y or currently enrolled
SWG	612	Social Work with Groups	Practices applications of knowledge and skill to social work with groups.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	613	Advanced Social Work Practice in Behavioral Health	Treatment of prevalent disorders encountered by social workers, selected from the following: anxiety disorders, personality disorders, depression, and schizophrenia.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: SWG 603
SWG	614	Advanced Generalist Social Work Practice IV	Integrates a multilevel approach to practice with critical choice theories and interventions. Focus on groups, organizations, and communities and their impact on social work practice. Completion of the foundation courses or advance standing in the MSW program, or instructor approval, is required for all 600- level SWG courses.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	615	Effective Intervention with Children and Adolescents	Provides a framework of knowledge, theories, and skills for effective social work practice with vulnerable children and adolescents.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either:MSW or MSW Adv Standing
SWG	616	Social Work with Chemically Dependent Families	Examines dynamics of the chemically dependent family and presents clinical approaches for intervening in the family system and subsystems.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	617	Advanced Social Work Practice with Children and Adolescents	Theory, research, and intervention that focus on children and adolescents.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	618	Domestic Violence	Theory, research, intervention, and prevention strategies relevant to child maltreatment, partner abuse, and elder abuse.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	619	Practice-Oriented Research	Accelerated course in application of scholarly and scientific principles to field practice, problem formulation, interventional procedures, and impact assessment.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG519 with a grade of C or greater or be currently enrolled
SWG	621	Integrative Seminar	Explores the fit between theoretical frameworks and practice with clients. Requires presentation of empirical studies with clients.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work student; SWG 611 completed with a C or better or currently enrolled; SWG 641 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 613, 616, 617, 618 or 691 with a C or better if completed
SWG	623	Agency and Community-Based Research in Social Work	Research design techniques and data collection in human service agencies and communities. Analysis for program evaluation and needs assessment.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Soc Wrk student; SWG 519 or 520 completed with C or greater or currently enrolled; Pre or Co-requisite: SWG 680 with C or greater if completed, or currently enrolled.
SWG	626	Crisis Intervention and Short-Term Treatment	Comprehensive analysis of crisis and solution-focused brief intervention strategies and approaches used in advanced social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either:MSW or MSW Adv Standing; AND completed SWG 610 with a C or greater
SWG	626	Crisis Intervention and Short-Term Treatment	Comprehensive analysis of crisis and solution-focused brief intervention strategies and approaches used in advanced social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	630	Brief Social Work Intervention	Concepts and techniques of solution-focused, systematic, and strategic approaches to therapy in the context of brief therapy.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	631	Advanced Policy Analysis	Supports advanced generalist practice with emphasis on policy analysis and philosophy and politics of resource allocation and social welfare.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	631	Advanced Policy Analysis	Supports advanced generalist practice with emphasis on policy analysis and philosophy and politics of resource allocation and social welfare.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either: MSW or MSW Adv Standing
SWG	632	Social Policy and Services II	Develops advanced knowledge and skills in social welfare policy analysis, policy formulation, and advocacy and intervention for policy change.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG531 with a grade of C or greater or be currently enrolled

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SWG	633	Child Welfare Services	Examines, using ecological and system theories, services that supplement, support, and substitute for parental care of children.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 542 completed with a Y or currently enrolled
SWG	641	Advanced Practicum: Direct Practice I	With SWG 642, two consecutive semesters (480 hours) of supervised social work practice in an approved placement related to the student's career goal. fee	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 511 completed with a C or better or currently enrolled; SWG 542 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 611 (with a C or better if completed)
SWG	642	Advanced Practicum: Direct Practice II	See SWG 641. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work; SWG 511 & SWG 611 with a C or greater or be currently enrolled; SWG 542 & SWG 641 with a Y or be currently enrolled; Pre or Co-requisite: SWG 613, 616, 617, 618 or 691 with a C or greater if completed
SWG	643	Advanced Practicum: Planning, Social Work Administration, and Community Practice I	With SWG 644, two consecutive semesters (480 hours) in social work practice in an approved placement related to the student's career goal. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 511 completed with a C or greater or currently enrolled; SWG 542 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 681 or SWG 682 with a C or greater if completed
SWG	644	Advanced Practicum: Planning, Social Work Administration, and Community Practice II	See SWG 643. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work student; SWG 511 with C or better; SWG 542/643 with a Y grade; SWG 681 or 682 with a C or better; Pre/Co-requisite: SWG 680 with C or better
SWG	645	The Professional Experience III	240 hours of supervised social work practice. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	PRA	N	YGB	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW student; SWG 542 with a grade of Y OR MSW Advanced Standing student; co-enrolled in SWG 610 and SWG 693
SWG	646	The Professional Experience IV	240 hours of supervised social work practice. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	PRA	N	YGB	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a student in either the Standard MSW or MSW Adv Standing; completed SWG 645 with a grade of Y; AND be co-enrolled in SWG 614, and SWG 693
SWG	650	Social Work Ethics/Law		N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	653	Theory and Practice of Family Therapy	Provides advanced theoretical knowledge and family treatment models for the practice of social work with families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a student in either: MSW or MSW Adv Standing.
SWG	653	Introduction to Holistic Therapies	Provides advanced theoretical knowledge and family treatment models for the practice of social work with families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	654	Introduction to Sexual Abuse	Develops general knowledge and skills for working with persons who have been impacted by sexual abuse.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	655	Quality of Life	Addresses key elements of a healthy life style contributing to wellness and disease through experiential learning and evidenced-based research.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	656	Treating the Whole Person	Addresses treating the "whole person's" physical and behavioral health through interviewing, intervention, and treatment within the context of an interdisciplinary model.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a graduate student
SWG	657	Ancient Healing Traditions	Historical development and research of the ancient healing teachings of traditional Chinese medicine, Aryurvedic medicine, homeopathic, naturopathic, and indigenous medicine and how they are used in today's health systems.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	660	Clinical Supervision in Social Work.	Examines and practices the knowledge, skills, and values of becoming a social work supervisor in human service agencies.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 681 or SWG 682 completed with a C or greater or currently enrolled; Pre or Co-requisite: SWG 623 with C or greater if completed
SWG	681	Social Work Administration	Administrative skill building and theory application within human service nonprofit social work settings.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG580 with a grade of C or greater
SWG	682	Community Participation Strategies	Reviews strategies to involve citizens and the consumers of social and human services in community decision-making systems. Participation is viewed as a means to facilitate the empowerment of oppressed peoples.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG580 with a grade of C or greater
SWG	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	685	Program Planning in Social Services	Social services planning process; includes needs assessment, goals and objectives, program design, budgeting, management information systems, and program evaluation.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 681, 682; Co requisite, SWG 523
SWG	686	Developing Grants and Fund Raising	Identifies potential funding sources, technical and interpersonal/political aspects of proposal development and fund raising.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.

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SWG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisites: MSW or MSW Adv Standing student
SWG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: MSW or MSW Advanced Standing student
SWG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		
SWG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		Pre-requisites: Must be a student in either: MSW or MSW Adv Standing
SWG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		
SWG	697	Special Topics in Working with Diverse Groups	Provides practice strategies for clients of specific marginalized groups; addresses access to resources; describes the larger political context and policy issues that impact the particular group.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	3.		
SWG	697	Special Topics in Working with Diverse Groups	Provides practice strategies for clients of specific marginalized groups; addresses access to resources; describes the larger political context and policy issues that impact the particular group.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	3.		
SWG	700	Research Methods	Course on research methods in a specific discipline.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	720	Philosophy of Science Issues in Social Work	Critical examination of social science, social work practice, and policy in terms of philosophical assumptions and varying frames of reference.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student.
SWG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-15		Pre-requisite: Master or Doctor Social Work student.
SWG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		
SWG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Social Work	1-15		Pre-requisite: Master or Doctor Social Work student.
SWU	171	Introduction to Social Work	Descriptive and historical perspectives of social problems, social justice issues and society's response to them.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & H	
SWU	171-W	Introduction to Social Work: Social Problems and Social Justice	Descriptive and historical perspectives of social problems, social justice issues and society's response to them.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & H	
SWU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		

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SWU	250	Stress Management Tools	Helps students develop an understanding and behaviors to create a healthy balance in their lives by studying the bio/psycho/social aspects of wellness.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	
SWU	291	Social Service Delivery Systems	Introduces federal and state social service delivery systems as well as private social service agencies. Explores purpose and structure of community resources. During the semester, students must complete 40 hours of service learning in a social agency.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 with a D or better or currently enrolled; Pre or Co-requisites: SWU 171 or SWU 271 (with a C or better if completed)
SWU	291-W	Social Service Delivery Systems	Introduces federal and state social service delivery systems as well as private social service agencies. Explores purpose and structure of community resources. During the semester, students must complete 40 hours of service learning in a social agency.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWU 171 with D or better or currently enrolled
SWU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	295	Foundations of Social Work Practice	Provides theoretical foundation and skill base necessary for social work interventions with individuals, small groups, and larger systems.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & C	Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 with D or better; SWU 171 or 271 with C or better; SWU 291 with C or better
SWU	301-W	Human Behavior in the Social Environment I	Introduces interrelation of bio-psycho-sociocultural systems and their effect on behavior, birth-adolescence, focused on southwestern ethnic and cultural groups.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	L	Pre-requisites: PGS 101 with a C or better; SOC 101 or 301 with a C or better; SWU 171 or SWU 271 with a C or better; SWU 291 with a C or better; BIO 120, BIO 201 or LSC 365 with a C or better
SWU	302	Human Biology for Social Workers	Overview of human anatomy and physiology, and the reciprocal relationship between physical and social environments. May be repeated for credit.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	303	Micro Human Behavior in the Social Environment	Human behavior in the social environment throughout the life cycle, analyzing theories of human development within an integrative multidimensional framework.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	L or SB	Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 completed with a D or greater or currently enrolled; Pre or Co-requisites: SWU 171, SWU 291 and SWU 295 (with a C or better if completed)
SWU	310	Social Work Practice I	Introduces social work methods, emphasizing the following skills: relationship development, cross-cultural interviewing, communication patterns, and case-recording.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWU 171 or SWU 271 with C or better; SWU 291 with C or better; SWU 295 with C or better; Pre or Co-requisite: SWU 303 (with C or better if completed)
SWU	310-W	Social Work Practice I	Introduces social work methods, emphasizing the following skills: relationship development, cross-cultural interviewing, communication patterns, and case-recording.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must have completed SWU 171 or 271 and SWU 291 with a grade of C or greater or be currently enrolled.
SWU	320	Research Methods in Social Work	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: student must have completed SWU310 with a grade of C or greater or be currently enrolled or enrolling during the same term
SWU	321	Statistics for Social Workers	Teaches social work students how to use and interpret descriptive and inferential statistics in social work practice. May be repeated for credit.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	CS	Pre-requisites: MAT 117 or an MA general studies course with D or better
SWU	331	Social Policy and Services I	History, philosophy, and values of social welfare; function and role of social welfare in society; development of the social work profession and practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	H	Pre-requisites: must be a Social Work student and have completed the following with a C or greater or be currently enrolled: ECN 111 or 211, POL 110 or POL 310 or POS 110 or POS 310, SWU 171 or SWU 271, and SWU 291.
SWU	331	Social Policy and Services I	History, philosophy, and values of social welfare; function and role of social welfare in society; development of the social work profession and practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	H	Pre-requisites: must be a Social Work student and have completed the following with a C or greater or be currently enrolled: ECN 111 or 211, POL 110 or POL 310 or POS 110 or POS 310, SWU 171 or SWU 271, and SWU 291.
SWU	332	Social Policy and Services	Contemporary social, political, and economic issues. Special emphasis on poverty and inequality in the Southwest. Analysis and development of social welfare policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: student must have completed SWU310 with a grade of C or greater or be currently enrolled/enrolling AND must have completed ECN111 with a grade of D or greater or be currently enrolled
SWU	337	Early Childhood Intervention	Explores how child development theory affects practice with children and families, emphasizing development of young children and early intervention.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	340	Macro Human Behavior in the Social Environment	Human behavior in the social environment, focusing on groups, organizations and communities and examining theoretical perspectives in a macro context	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	Pre-requisites: SWU 303 (SWU 301) with C or better; Pre or Co-requisite: SWU 310 (with C or better if completed)
SWU	374	Diversity and Oppression in a Social Work Context	Issues of social inequality related to race, ethnicity, gender, sexual orientation, and disability. Emphasizes populations of the Southwest.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	Pre/Co-requisite: SWU 310 with C or better if completed
SWU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		Pre-requisite: Master of Social Work student
SWU	402	Human Behavior in the Social Environment II	Sequel completing study of life span development and behavior which forms base for social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	Pre-requisites: SWU 303 with C or better
SWU	410	Social Work Practice II	Knowledge and skills in social work practice with individuals and families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Social Work undergraduate; SWU301 and SWU310 with C or better; PHI 101, 105 or 306 with D or better; Co-requisites: SWU 412 and SWU 413
SWU	410-W	Social Work Practice II	Introduces generalist social work; major areas of knowledge, values and skills basic to the social work helping process focused on individuals and families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-reqs: must be a Social Work student and be co-enrolled in SWU 412 & 413; and have completed the following with a C or greater or be currently enrolled: PHI 101 or PHI 306, SWU 301, and SWU 310.
SWU	411	Social Work Practice III	Knowledge and skills in social work practice with groups, communities, and organizations.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU414 and SWU415 AND must be a Social Work major or must have completed SWU410, SWU412, or SWU413 with a grade of C or greater or be currently enrolled

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SWU	412	Field Instruction I	16 hours a week of supervised practice in an approved placement. "Y/E" grade only. fee.	N	PRA	N	YGB	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU410 and SWU413; must have completed SWU310 with C or better; Must be a Social Work major
SWU	412-W	Field Instruction I	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Social Work student; Co-requisites: SWU 410 and SWU 413
SWU	412-W	Field Instruction I	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Social Work student; Co-requisites: SWU 410 and SWU 413
SWU	413	Field Instruction Seminar	Field-focused seminar, including practice evaluation.	N	DIS	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU410 and SWU412; must have completed SWU301 and SWU310 with a grade of C or greater; AND must be a Social Work major
SWU	413	Field Instruction Seminar	Field-focused seminar, including practice evaluation.	N	DIS	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be co-enrolled in SWU 410 AND SWU 412
SWU	414	Field Instruction II	16 hours a week of supervised practice in an approved placement. Y/E grade only. fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Social Work student; SWU 410, SWU 412 or SWU 413 with C or better Co-requisites: SWU 411 and SWU 415
SWU	414	Field Instruction II	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: must be co-enrolled in SWU 411 and 415, and completed SWU 410 and SWU 413 with a grade of C or greater or be currently enrolled.
SWU	415	Integrative Field Seminar	Field-focused seminar to help students integrate practice and theory.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite(s): Social Work student; SWU 410, SWU 412 or SWU 413 with C or better; Corequisite(s): SWU 411 and SWU 414
SWU	415	Field Instruction Seminar II	Field-focused seminar, including practice evaluation. 1.5 hours a week.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1.		Pre-requisites: must be co-enrolled in SWU 411 and 414, and have completed the following with a grade of C or greater or be currently enrolled: SWU 410, SWU 412, and SWU 413.
SWU	420	Practice-Oriented Research	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must have completed SWU 301 with a C or greater or be currently enrolled; and completed CRJ 303 or EDP454 or JUS 302 or PSY 230 or QBA 221 or SBS 304 or SOC 390 or STP 226 or STP 220 with a grade of C or greater.
SWU	420	Practice-Oriented Research	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	432	Social Policy and Services	Contemporary social, political, and economic issues. Special emphasis on poverty and inequality in the Southwest. Analysis and development of social welfare policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWU 303 with C or better
SWU	442	Introduction to Practice with Children and Families in Child Welfare	Focuses on the characteristics, strengths, and service needs of families and children in the Child Welfare System.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Social Work student and have earned C or better in SWU 410, 412, and 413 or be currently enrolled.
SWU	444	Issues in School Social Work	Demonstrates how community, family, and school are interdependent using an ecological metaphor, and introduces school social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Social Work student and have earned C or better in SWU 410, 412, and 413 or be currently enrolled.
SWU	455	Social Work Practice Skills with Latinos	Focuses on communication skills necessary and appropriate for social work practice with Spanish-speaking clients and their families. Credit is allowed for only SWU 455 or SWG 555.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	457	Southwest Borderland Immigration Issues	Reviews immigration history, trends, policies, and legislation. Focuses on immigrant experience from economic, educational, social, political, familial perspectives in Southwestern U.S. Credit is allowed for only SWU 457 or SWG 557.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	474	Ethnic/Cultural Variables in Social Work	Basic conceptual approach to understanding ethnic and cultural variables of southwestern ethnic minorities and how these factors influence social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	
SWU	474	Ethnic/Cultural Variables in Social Work	Basic conceptual approach to understanding ethnic and cultural variables of southwestern ethnic minorities and how these factors influence social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	Pre-requisite: must have completed SWU 310 with a grade of C or greater or be currently enrolled
SWU	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Social Work	1-6		
SWU	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Social Work	1-6		
SWU	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Social Work	1-6	L	Pre-requisite: must be an honor student
SWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-7		
SWU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-3		Pre-requisite: Bachelor of Social Work student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SWU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-3		
TA	488	Elem Air Transport		Y	LEC	Y	CNV	Ira A. Fulton Engineering	INACTIVE - Dept Aeronautical Management Technology	3.		
TCL	101	Introduction to Transborder Chicana/o and Latina/o Studies	Historical and contemporary issues in Chicana/o and Latina/o communities; focuses on the diverse economic, sociological, cultural, and political status.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	111	Introduction to Transborder Chicana/o and Latina/o Culture	Interdisciplinary analysis of customs, values, belief systems, and cultural symbols; special attention is given to cultural continuity and change.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	N	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-3		
TCL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	201	Transborder Society and Culture I: Interdisciplinary Approaches	Intensive overview of Mexican origin and Latina/o populations through various sociological, historical, anthropological, economic, political, cultural, literary, and analytical lenses.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	202	Transborder Society and Culture II: Contemporary Issues	Examines contemporary transborder belief systems, ideologies of health, gender, familial structures, and community development within a transnational context.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	
TCL	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	211	Transborder Chicano/a and Latino/a Poetry	Writing seminar on Chicana and Chicano poetics and intensive creative writing workshop.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	220	Transborder Chicano/a and Latino/a Cultural Expression	Interrelation among economic, social, and political status and forms of artistic expression; i.e., music, dance, drama, literature, and graphic arts.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	270	Race and Gender in American Film	Explores how Hollywood shapes perceptions of race and gender in American society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	Credit is allowed for only FMS 270 or TCL 270
TCL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	303	Transborder Theory	Studies historical, cultural, and economic theories contributing to understanding the emergence of Mexican and Latina/o origin populations in the Americas.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	304	Transborder Research Methods	Emphasizes critical skills: quantitative/qualitative, spatial, archival, and reflexive methodologies, including ethnographic, biographical, historical, and mapping.	N	RSC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	305	Transborder Practicum and Field Research.	Field work with faculty incorporating practical experience while honing research skills and ability.	N	FLD	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre or Co-requisites: TCL 303 and TCL 304 with a D or better if completed
TCL	310	Transborder Chicano/a and Latino/a Folklore of Southwest North America	Analyzes Chicana and Chicano folk beliefs, traditions, and practices.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	314	Transborder Regional Immigration and Economy	Historical/contemporary overview of Mexican immigration into and within the U.S.; factors affecting population movement, settlement patterns, and migrants' incorporation into society.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or SB) & H & C	
TCL	315	Chicana/o and Latina/o Family Structures	Traditional and changing family relationships; emphasis on gender and intergenerational relations and impact of modern society on traditional family values.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	
TCL	321	Transborder Community Development and Health	Emphasizes core concepts and practices relevant to regional community development and health, including demographic health indicators, individual, and community models.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites: TCL 101 with D or better or currently enrolled
TCL	323	Latino Health Issues	Health issues among Chicanos and other U.S. Latinos; interplay among political economy, health, family, culture, and community.	N	LEL	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	4.	SB & C	
TCL	326	Health of Chicanas and Latinas	Examines gender, ethnicity, and health; critical issues affecting health status of Chicanas and Latinas.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	Pre-requisites: TCL 101 with a D or better or currently enrolled
TCL	327	Health and Migration	Focuses on health status among various immigrants; health trajectories following migrations, adaptive behaviors, health practices, and the role of policy.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	Pre-requisites: TCL 201 with a D or better or currently enrolled
TCL	328	Latina/o and Latin American Religions and Cultures	Surveys the formative myths, rituals, and symbols and religious expressive cultures of U.S. Latinos and Latin Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	331	Mexican American History to 1900	Mexican American history from pre-Hispanic origins to frontier journeys north through 19th-century life in the U.S. Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & H & C	

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TCL	332	Mexican American History Since 1900	Traces the formation of Mexican American communities across the rural and urban U.S. and examines 20th-century immigration from Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & H & C	
TCL	335	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites:Completed ENG 101 & ENG 102 with a grade of C or better, or currently enrolled. If credit has been received in HST 323, you may not enroll in TCL 335
TCL	340	Chicana/o and Latina/o Politics and Policy	Historical/contemporary analysis of Chicana and Chicano political ideologies, attitudes, strategies, and movements; relations with governmental agencies; and public policy issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	
TCL	341	Policy Issues in Chicana/o and Latina/o Urban Settings	Historical, demographic, and sociological overview of the status of Chicanas and Chicanos in urban settings as well as the public policy relevance.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	342	Social Demographics of Latino Populations	Provides an introduction to social demography of Latinos in the U.S. from the 19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	
TCL	350	Transborder Mexican and Chicano/a Artistic Production	Overview of Mexican and Mexican American artistic production from colonial times to present; emphasis on religious and folk art.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C & G	
TCL	351	Transborder Chicano/a and Latino/a Art	Intensive analysis of contemporary Chicana and Chicano art movement as appraised within the context of contemporary American art and the art of Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	352	Chicana/o Film	Explores how Chicano and Chicana filmmakers have interpreted the Chicano experience through the medium of film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	Pre-requisites:If you have credit for ENG 363, you may not enroll in TCL 363. Completed ENG 101, or ENG 107, or ENG 105 with a D or better or be currently enrolled
TCL	364	Transborder Chicana/o and Mexican Literature of Southwest North America Before 1917	Offers a historical panoramic view of the political, intellectual, social, economic, and artistic development of the Spanish-speaking people of the Southwest. May be taught in Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	Pre-requisites: SPA 314 or 316 with C or better
TCL	370	Signs of Aliens: Semiotics of Film and Popular Culture	Introduces semiotics and cultural studies; looks at various meanings ascribed to the sign of the alien.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU	
TCL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	410	Race, Medicine, and the Body	The ways in which medicine, disease, and health outcomes are affected by culture, gender, and social location.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L	
TCL	422	U.S.-Mexico Border Health	Focuses on identifying health issues affecting Latino/Mexican families in the U.S.-Mexico borderlands using basic epidemiological techniques to analyze regional data.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites: TCL 321 with D or better or currently enrolled
TCL	424	Theory and Practice of Community Development and Health	Foundations of methodology of community mapping and establishment of community diagnosis, media literacy and advocacy applications for community-based public health.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	Pre-requisites: TCL 321 completed with D or better or currently enrolled
TCL	443	Political Ecology of the Border	Using a political ecology approach, focuses on the creation of border communities of Southwest North America.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & G	
TCL	444	The Ethnography of Mexican Border Rural Settings	Focuses on the internal characteristics of a selected Mexican rural border towns and villages; analyzes the dynamics of development.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & G	
TCL	445	Transborder Latin American Short Story	Studies the modern Latin American short story, with primary focus on the development of its literary and cultural tradition. Uses a transregional and transborder approach, focusing on the interconnections of this modern genre across the borders of Spanish América. Takes a long historical view of the genre by reading representative stories of important literary movements and the aesthetic and cultural values they promoted and fostered.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L or HU	
TCL	446	Comparative Bilingual Latina/o Poetics	Comparative study of contemporary bilingual Latina/o poetry. Focuses on two specific U.S. ethnic minority groups--Mexican- (or Chicanos) and Puerto Rican-Americans (or ñuyorricans)--who have long and strong literary traditions of bilingual poetry. The significant feature of both bodies of poetry is the interactive mixture of their base languages: Spanish and English.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	
TCL	464	Latina/o Literature	Development of Latina/o literature. Study of genres and themes; attention to literary antecedents of the new U.S.-based Latina literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	Pre-requisites:If you have credit for FMS 464, you may not sign up for TCL 464
TCL	465	Chicana/o and Latina/o History on Film	Explore history on film; the processes, developing critical perspectives about historiography, and film in relation to U.S.-Mexican borderlands.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	Pre-requisites:Completed TCL 201 with a grade of D or better, or currently enrolled. May not enroll in TCL 465 if received credit for FMS 465
TCL	466	Constructing the Border on Film	Explores the U.S.-Mexico border on film, examining how border images have been constructed and shaped over time.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	470	Race, Sex, and Identity Online	Relying on critical and cultural theory, addresses the relationship between race, sex, and social identity online.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU	Pre-requisites: ENG 102, 105 or 108 completed with a C or better; You may not enroll in TCL 470 if you have credit for FMS 470

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TCL	471	Latinos In Hollywood	Studies representations of Latinos in film; stereotyping, politics of metaphor, allegory, star discourse, self-representation, resistance, and independent film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-12		
TCL	485	Chicana and Latina Writers	Critical reading of Mexican American women authors; emphasis on contemporary (post-1970) poetry, novels, short stories, and essays.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	
TCL	488	Border Global Narratives	Studies four general and different border areas through literature. Through literary-cultural texts, looks into peoples' experiences of migration to and from the homelands of Mexico, Haiti, the Dominican Republic, Cuba, and the Puerto Rican isle to the U.S. These experiences are never uni-directional but are characterized by constant back-and-forth movement.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	
TCL	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-6		
TCL	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-6	L	Pre-requisites: Must be an Honors student
TCL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-7		
TCL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	N	LEC	Y	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-3		
TCL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TDM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students. Must have taken 25 or fewer semester hours. Consulting an academic advisor before enrolling is recommended.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
TDM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	205	Introduction to Travel and Tourism	Examines the components of the travel and tourism industry at the state, national, and global levels.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
TDM	210	Community Services and Professions	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: PRM 120 (or REC 120) with C or better if completed; must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or co-requisites: PRM 120 (or REC 120) with a C or better if completed
TDM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre- or Co-requisites: PRM 120 (or REC 120) with a C or better if completed
TDM	325	Tourism Accommodations	Local, national, and international overview of the lodging and food service industries.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have completed REC305 or TDM205 with a grade of C or better or be currently enrolled

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TDM	345	Meeting and Convention Planning	Basic aspects and skills in planning meetings and conventions. Industry and market overview of certified meeting planners.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: REC 305 or TDM 205 with C or better
TDM	350	Tourism Marketing	Critical examination of marketing principles; applications to travel, tourism, and related industries in diverse settings, including local, national, and international.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: TDM 205 (REC 305) with a C or better or be currently enrolled; must have completed at least 45 hours
TDM	372	Tourism Planning	Applies economic and regional development concepts and theories to destination product development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: Tourism Development & Mgmt or Recreation (Tourism) students; TDM 205 (REC 305) & ENG 102 completed with a C or better or currently enrolled; 2.50 ASU GPA; 45 or more hours; MAT 142 or higher
TDM	386	Convention Sales and Management	The role of convention and visitors bureaus or resort managers, including economic impacts of markets, structure, governance, membership, and advertising.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
TDM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	401	Tourism Management	Principles of tourism administration and their successful application. Covers the topics on legal, financial, public relations, and human resources.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must be a Tourism Development & Mgmt or a Recreation (Tourism Management) student; Pre- or Co-requisite: TDM 372 (with a C or better if completed)
TDM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: TDM 401 or REC 462 (with a C or better if completed); must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre- or Co-requisites: TDM 401 (or REC 462) with a C or better if completed; must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	415	Tourism Transportation Systems	Examines the role of various modes of transportation in domestic and international tourism development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must have earned grade of C or better in REC305 or TDM205 or be currently enrolled.
TDM	448	Heritage and Cultural Tourism	Provides a solid conceptual understanding of the issues, problems, and management implications associated with heritage and cultural tourism.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or REC 120 with a C or better or be currently enrolled
TDM	458	International Tourism	Global examination of international tourism and its significance as a vehicle for social and economic development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
TDM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Prerequisites: TDM 402 (or REC 482) and TDM 403 (or REC 499 Pre Internship Workshop) with a C or better or currently enrolled; Must be a Tourism Development and Management or Recreation (Tourism concentration) student
TDM	480	Nature-Based Tourism	Examines the interaction of tourism with culture, natural environment, as well as the impacts of tourism on the environment.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or TDM 205 with a D or better or currently enrolled
TDM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
TDM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
TDM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
TDM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TEL	501	Introduction to Research and Evaluation in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
TEL	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: College of Teacher Education & Leadership MEd or Doctoral student
TEL	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
TEL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
TEL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	683	Field Work	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	GRD	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	701	Assessment Policies, Issues, and Practices	Critical thinking about assessment data and other information sources to make inferences, judgments, and predictions about reality in schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	702	Dynamic Contexts of Education	Explores current ethical issues influencing leadership decisions with a focus on real problems in the educational setting.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	703	Innovation in Teaching and Learning	Development and psychological processes of human cognition, motivation, and performance applied to cognitively diverse, English language learners, adult professional development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	704	Leading Change in Educational Organizations	Develops understanding of dynamic and systemic nature of organizations, with emphasis on leadership for building organizational capacity and learning	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	711	Strategies for Inquiry	Develops knowledge and skills for research and program evaluation that foster innovation in education that leads to improved student learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	712	Mixed Methods of Inquiry	Methods for combining qualitative and quantitative inquiry in action research, evaluation, and data-based decision making.	N	SEM	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	713	Applied Mixed Methods of Inquiry	Data collection, analysis, interpretation in studies combining qualitative and quantitative inquiry in action research, evaluation, and data-based decision making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TEL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		
TEL	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	795	Continuing Registration		N	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
TEL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		
TEL	111	Exploration of Education	Education as an instrument in the development of the individual and society and its significance as an American Institution.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
TEL	111	Exploration of Education	Education as an instrument in the development of the individual and society and its significance as an American Institution.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
TEL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	212	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
TEL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	311	Instruction and Management in the Inclusive Classroom	Planning and delivering instruction, organizing and managing classrooms, and making adaptations for English language learners and students with special needs. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	311	Instruction and Management in the Inclusive Classroom	Planning and delivering instruction, organizing and managing classrooms, and making adaptations for English language learners and students with special needs. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	313	Educational Technology in the K-12 Curriculum	Applies and integrates educational technologies in all curricular areas; examines theoretical and practical issues for diverse learners. Fee.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	313	Educational Technology in the K-12 Curriculum	Applies and integrates educational technologies in all curricular areas; examines theoretical and practical issues for diverse learners. Fee.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	314	Classroom Assessment	Assessment and evaluation of student learning; emphasizes integration and adaptation of curriculum, instruction, and evaluation of all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	314	Classroom Assessment	Assessment and evaluation of student learning; emphasizes integration and adaptation of curriculum, instruction, and evaluation of all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	315	Child and Adolescent Development	Physical, cognitive, social, and emotional development during childhood and adolescence; developmentally appropriate principles and practices to facilitate development for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L or SB	
TEL	315	Child and Adolescent Development	Physical, cognitive, social, and emotional development during childhood and adolescence; developmentally appropriate principles and practices to facilitate development for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L or SB	
TEL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	396	Field Experience I	Observation in classrooms and individual and small group instruction. Fee.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
TEL	396	Field Experience I	Observation in classrooms and individual and small group instruction. Fee.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
TEL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
TEL	492	Honors Directed Study		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TEL	493	Honors Thesis		Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
TEL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
THA	101	Elementary Thai I	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose readings in Thai script. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
THA	102	Elementary Thai II	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:THA 101 with a grade of C or better
THA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
THA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	201	Intermediate Thai I	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:THA 102 with C or better
THA	202	Intermediate Thai II	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:THA 201 with a grade of C or better or currently enrolled
THA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
THE	307	Acting:		N	LEC	N	CNV	Herberger College of the Arts	School of Theatre and Film	3.		
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisite(s): non-Theatre and non-Film students only
THE	125	Orientation to Theatre and Film	Orientation to university and school resources and procedures. Career planning and guidance. Community-building exercises. Attendance and written response to performance and media events. Required for BA Theatre and BA Film (film and media production concentration) majors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisites: Theatre and Film students only
THE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THE	220	Principles of Dramatic Analysis	Analysis, evaluation, and interpretation of dramatic literature for theatrical production. Emphasizes the traditional canon of dramatic literature and traditional structures and forms of drama.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	L or HU	Prerequisites: Herberger Institute students in specific majors; Must have completed THE125 with a B or greater; Must have completed ENG101, 105 or 107 with a C or greater
THE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	301	Film: the Creative Process II	Advanced study of contemporary cinema history and film techniques; analyzes social changes in film, multicultural filmmaking, and the star system.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites:Must have completed FMP201or THE300 with a D or greater or be currently enrolled
THE	320	History of the Theatre I	Traces major developments in theatre production from its beginning to the 17th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites:Must have completed THE220 with a C or greater or be currently enrolled
THE	321	History of the Theatre II	Traces major developments in theatre production from the 17th century to modern times.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites: Must have completed THE220 and THE320 with a C or greater or be currently enrolled
THE	322	Theatre History and Culture	Critically examines major developments in theatre history, historiography, and dramatic literature. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites: Must NOT be a Theatre student
THE	325	Play Reading for Educational Theatre	Assigned independent readings in plays for secondary school play production.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisites: Must be a Theatre student
THE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	403	Independent Film	Examines the independent film movement from the French New Wave to contemporary independent filmmakers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	404	Foreign Films and Filmmakers	Films and filmmakers from Europe, Asia, Australia, the Far East, South America, and the Caribbean. Emphasizes cultural content and filmmaking philosophies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	G	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THE	405	Film: Great Performers and Directors	Examines processes and influences of one or more great film performers and/or directors. May be repeated for credit when topics vary. Fee (hybrid/Internet).	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	406	American Multicultural Film	Examines Native, African, Asian, and Latina and Latino American films and film artists in cinema history and production. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & C	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	421	Shakespeare: Stage and Film	Examines Shakespeare's plays as written texts, stage performances, and film productions. Focuses on play reading, performance analysis, and film critique. Online course.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Pre-requisites: ENG 102(or Eng 105, or 108) with a grade of D or better, or currently enrolled
THE	422	Latina and Latino Theatre	Readings, discussion, video of dramatic literature and production styles of Latina and Latino playwrights and theatre companies in the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: ENG 102, ENG 105 or ENG 108 with a C or greater or currently enrolled OR Theatre Masters students
THE	423	African American Theatre	Readings, discussion, video of the history and dramatic literature of African American playwrights and theatre companies in the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	C	Prerequisites: Must be a Masters student , or must have completed ENG102, ENG105, or ENG108 with a C or greater or be currently enrolled
THE	424	Trends in Theatre for Youth	Surveys the history, literature, and contemporary practices in theatre for youth.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THE	426	Pre-Columbian Theatre of the Americas	Selected studies in pre-Columbian theatre forms and texts of the Aztecs, Mayans, Caribbean islands, and North American Indians.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed ENG102, ENG105, or ENG108 with a C or greater or be currently enrolled OR be a Masters Theatre student
THE	430	History of Costume: Western Tradition	Studies major costume styles throughout history of Western civilization and how these fashions reflected society. Explores how styles can be used by theatrical costumers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THE	440	Experimental Theatre and Performance	Explores 20th-century modernist theatrical forms and movements and development of alternative strategies for analyzing contemporary theatre and performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Theatre undergraduate student; THE 220 and THE 320 with C or better
THE	480	Methods of Teaching Theatre	Applies materials, techniques, and theories for theatre with 9th- through 12th-grade students. Emphasizes curriculum development and praxis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Junior standing and above. Students who have credit for THE 581, may not enroll in THE 480
THE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		Pre-requisites: Must be a Fine Arts student; Must be an Honors student
THE	493	Honors Thesis		N	THE	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be a Fine Arts student ; Must be an Honors student
THE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-7		
THE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THE	500	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	504	Studies in Dramatic Theory and Criticism	Surveys dramatic theory, criticism, and aesthetics as they relate to contemporary performance.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THE	505	Critical Theory and Performance	Surveys contemporary theories of culture as they apply to theatre and performance studies.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THE	510	Studies in Literature	Assigned individual reading program in standard sources and masterpieces in theatre literature. May be repeated for credit.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisite: Must be a Theatre Education or Theatre for Youth student
THE	520	Theatre History and Literature	Surveys historiographical issues and dramatic literature related to key periods in theatre history.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THE	524	Advanced Studies in Theatre for Youth	In-depth study of the history, literature, and contemporary practice of theatre for young audiences.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must be a Theatre Education or Theatre for Youth student
THE	525	Advanced Studies in Theatre for Youth II	Project-oriented explorations of theory and practice of contemporary theatre for youth audiences.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: THE524 with a B or better
THE	562	Literary Management Workshop	Advanced literary management for the contemporary theatre, including trends in new play development, festivals and productions throughout the United States. Participation in Arizona Playwriting Competition.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: THP560 with a B or better
THE	581	Methods of Teaching Theatre	Applies materials, techniques, and theories for theatre with 9th- through 12th-grade students. Emphasizes curriculum development and praxis. Credit is allowed for only THE 581 or 480.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Must be a graduate student. Students who have credit for THE 480, may not enroll in THE 581
THE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Graduate student
THE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Art Theatre student
THE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THE	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Pre-requisite: Must be a Theatre Education or Theatre for Youth student or have instructor approval.
THE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-15		
THE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-15		
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
THE	201	Film:Creat Procss I	Elements of the theatrical film: cinematography, sound, editing, directing, acting, scriptwriting, producing, and criticism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
THE	320-W	History of the Theatre	Traces major developments in theatre production from its beginning to the 17th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
THE	321	History of Theatre	Traces major developments in theatre production from the 17th century to modern times.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
THE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THE	420	History Am Theatre		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
THE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
THE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: You must NOT be in the following 3 Fine Arts Plans FATHEPREBA,FATHEBA, FATHESBA, or FATHEABA
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must NOT be a Theatre student
THP	102	Acting I: Fundamentals	Explores and applies basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student
THP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	201	Theatre Production Crew	Participation in university mainstage theatre production backstage and board operations.	N	LAB	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THP	202	Acting II: Scene Study	Rehearsal techniques and application of action to dramatic text. Emphasizes realistic drama.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP101 or THP102 with a B or greater or be currently enrolled; must have completed THE220 with a C or greater or be currently enrolled ;Corequisite: THE220
THP	213	Introduction to Technical Theatre	Procedures of technical theatre production and demonstration. Topics include design and construction of scenery, lighting, and properties. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	4.		Prerequisites:Must be a Theatre student
THP	214	Introduction to Costuming	Basic principles of costume design, construction, and survey of selected historical periods including makeup styles. Costume design project and production experience. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	4.		Prerequisites:Must be a Theatre student
THP	218	Directing I: Introduction to Directing	Overview of emergence and practice of the director's craft. Explores director's role and responsibilities, play selection, conceptualizing, ground plans, blocking. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Fine Arts Theatre student; THE 220 AND THP 102 with a C or greater .
THP	251	Student Production Board	Performing arts entrepreneurship taught through the experience of operating a student-produced theatre company.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	260	Introduction to Playwriting	Basic skills of playwriting including exercises in monologues, scenes, and conflict and resolution, leading to completion of a one-act play.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG101,105 OR 107 with a C or greater or be currently enrolled
THP	261	Introduction to Screenwriting	Basic skills of screenwriting including exercises in conflict and resolution, plot points, and theories of three-act structure and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG101,105 OR 107 with a C or greater or be currently enrolled
THP	272	Acting: Introduction to Movement	Movement vocabulary and physical training in relaxation, alignment, conditioning, and stage presence. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP101 or THP102 with a B or greater or be currently enrolled
THP	277	Acting: Introduction to Voice	Exercises and techniques to free the voice and improve quality and projection. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP101 or THP102 with a B or greater
THP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THP	301	Theatre Production	Participation in university mainstage theatre productions (e.g., acting, construction, stage management).	Y	LAB	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-2		Prerequisites:Must have completed THP213 or THP214 with a C or greater or be currently enrolled
THP	302	Acting III: Advanced Techniques	Advanced practice in methods, skills, and research for rehearsal and performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 101 (or THP 102), THP 202, THP 272, THP 277 and THE 220 with C or better
THP	307	Acting: Research and Performance	Acting in theatre projects, productions, or collaborative performances in directing classes.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisites:Must have completed THP101 or THP102 with a C or greater or be currently enrolled.
THP	311	Improvisation with Youth	Basic materials, techniques, and theories for facilitating improvisational drama with children and youth. Not open to freshmen.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Academic Level must not equal Freshman
THP	311	Improvisation with Youth	Basic materials, techniques, and theories for facilitating improvisational drama with children and youth. Not open to freshmen.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must NOT be a Freshman student
THP	312	Puppetry with Children	Construction and manipulation of puppets; practice in performance skills. Emphasizes educational and recreational uses of puppetry by and with children. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Academic Level must not be equal to Freshman or Sophomore
THP	312	Puppetry with Children	Construction and manipulation of puppets; practice in performance skills. Emphasizes educational and recreational uses of puppetry by and with children. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must NOT be a Freshman or Sophomore student
THP	313	Fundamentals of Design	Art and practice of scenic, costume, and lighting design for the theatre and the media.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP213 or THP214 with a C or greater or be currently enrolled
THP	317	Stage Management	Readings in stage management and participation as a stage manager in a university theatre production.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student; Corequisite: THP301
THP	318	Directing II: Intermediate Directing	Explores approaches to staging and composition. Studio work culminates in presentation of a fully rehearsed ten-minute play.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP218 AND THP213 or THP214 with a C or greater or be currently enrolled
THP	320	Acting: Solo and Collaborative Performance	Creation and development of original performance art works combining text, movement, multimedia, visual art; the actor as writer, designer, performer.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	322	Acting: Voice-Overs and Radio Drama	Applies effective vocal techniques to commercials, books on tape, radio dramas. Preparation of audition tape, performance in radio drama.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	331	Costume Construction	Uses of materials and techniques for stage costumes with actual construction of period apparel. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP214 with a C or greater or be currently enrolled.
THP	340	Scene Design	Studio projects in designing scenery for contemporary stages. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite:Must have completed THP 213 with a grade of C or greater and THE 220 with a grade of C or greater or be currently enrolled.
THP	345	Lighting Design	Principles and theory of stage lighting design, including design process and execution, equipment, and light plots. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Sophomore standing or above
THP	350	Sound Design	Introduces the equipment, process, and recording techniques used in sound design for the theatre. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a BA Theatre major OR a Fine Arts BFA student
THP	360	Intermediate Playwriting	Continued development of skills in playwriting through specific exercises and completion of a full-length play.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG210 or THP260 with a C or greater
THP	361	Intermediate Screenwriting	Character and dialogue development, choosing correct structure, importance of subplots, developing a story into a completed thirty-page screenplay.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 261 with D or better or currently enrolled
THP	372	Acting: Advanced Movement	Movement techniques for the classical and nonrealistic theatre.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP272 with a B or greater or be currently enrolled; must be junior academic level or higher
THP	377	Acting: Voice and Speech	Introduces phonetic alphabet, exercises, and techniques for voice and speech improvement. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP277 with a B or greater or be currently enrolled; Junior academic level or higher
THP	378	Acting: Stage Dialects	Major dialects needed for actors; techniques for researching and learning dialects; phonetic analysis of dialects.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP377 with a B or greater or be currently enrolled; Junior academic level or higher
THP	385	Acting: Classical and Poetic Drama	Rehearsal and performance of Shakespeare and other classical playwrights. Emphasizes understanding poetic language, vocal and physical skills.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP277 with a B or greater or be currently enrolled
THP	386	Acting: the Meisner Approach	Improvisations and exercises developed by Sanford Meisner applied to scene work.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP 101 or THP 102 with a B or greater or be currently enrolled
THP	387	Acting: TV and Film	Professional television and film acting techniques, terminology, and on-camera experience. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP101 or THP102 with a B or greater or be currently enrolled OR must be a Film and Media Production student.
THP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	401	Theatre Practicum	Production assignments for advanced students of technical production, stage and business management, and design.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-2		Prerequisites: THP 301 with a C or better, or Master of Arts or Master of Fine Arts student
THP	406	Advanced Scenography	Process of production collaboration among scenographers, directors, and playwrights. Taught in conjunction with THP 519.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master in Fine Arts student; THP 340 plus one of the following: THP 214, THP 313, or THP 345 completed with a C or better
THP	411	Methods of Teaching Drama	Applies materials, techniques, and theories with grades K-8 youth. Regular participation with children.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Graduate student OR must have completed THP311 with a C or greater or be currently enrolled
THP	418	Directing III: Advanced Directing	Studio work building on skills learned in intermediate directing, culminating in the presentation of a fully rehearsed one-act play.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 318 with a C or greater or be currently enrolled OR Herberger Master of Art or Master of Fine Arts students
THP	428	Theatre and the Future	Senior projects course that includes a culminating creative synthesis of student's knowledge.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student in specific plans ; Must have completed THE440 AND THP201 or THP301 with a C or greater
THP	430	Costume Design	Principles of costume design with projects in both modern and period styles. Includes budgets and fabric/pattern estimates.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre Scenography or Performance Design student OR must have completed THP214 with a C or greater or be currently enrolled

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THP	431	Advanced Costume Construction	Specialized training in costume construction problems and crafts with projects in tailoring, millinery, and period accessories.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP214 AND THP331with a C or greater or be currently enrolled in both OR must be a Theatre Scenography or Performance Design student
THP	435	Advanced Technical Theatre	Selection of materials, drafting of working drawings, tool operation, and construction techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 AND THP345 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	440	Advanced Scene Design	Advanced studio projects in designing scenery for a variety of stage forms. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	441	Scene Painting	Studio projects in painting stage scenery. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	442	Drawing	Techniques in drawing and rendering for scenic, costume, and lighting design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student
THP	444	Drafting for the Stage	Fundamentals of and practice in graphic techniques for the stage. Introduces computer-aided design for the stage. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP213 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	445	Advanced Lighting Design	Specialized techniques in stage lighting. Advanced application of design process, graphic techniques of design presentation, and use of qualities of light. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP345 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student AND have completed THP444 with a B or greater or be currently enrolled
THP	450	Theatre Organization and Management	Overview of nonprofit arts: organizational design, strategic planning, financial management, and leadership.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student
THP	451	Student Production Board	Performing arts entrepreneurship taught through the experience of operating a student-produced theatre company.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites:THP 450 with a grade of D or better, or co-enrolled
THP	460	Advanced Playwriting	Practice and study of creating characters, dialogue, scenes, plays, and monologues for the stage, culminating in a full-length script.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Fine Arts BFA student; Must have completed THP360 with a C or greater or be currently enrolled
THP	461	Scripts in Progress	Studio work with the instructor, centered on revisions of original plays.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite:Must have completed THP460 with a C or greater or be currently enrolled
THP	481	Secondary School Play Production	Methods of directing, designing, and coordinating play production experiences at the secondary school level.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	482	Theatre for Social Change	Interactive theatre techniques (e.g., Boal, drama therapy, playback theatre) to examine and combat institutional, social, cultural, interpersonal, and personal oppressions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	C	Prerequisite:Must be a sophomore academic level or higher
THP	483	Acting: Viewpoints and Composition	Training in Anne Bogart's viewpoints and composition techniques; application to rehearsal and performance, and creating new work.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: THP 202 with C or better or currently enrolled; Junior academic level or higher OR Master of Fine Arts student
THP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites:Must be a Theatre or Film student
THP	489	Acting: Audition Techniques and Career Development	Familiarization with the business of performance; preparation and techniques for auditioning; self-promotion and marketing strategies; grant resources, interviews, and unions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP 101 or THP 102 and THE 220 with a B or greater; Junior academic level or higher
THP	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		
THP	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be an Honors student
THP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-7		Prerequisites: Must be a Theatre student
THP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THP	501	Performance: Solo Performance	Students begin to define their mission in art. Emphasizes the actor as a solo storyteller, speaking as herself or himself.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Prerequisites: Master of Arts or Master of Fine Arts Theatre student
THP	502	Graduate Acting	Understanding and analyzing scripts and performance in order to be an effective actor/storyteller who speaks as a character. Projects focus on solo, duet performances. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Arts or Master of Fine Arts Theatre student
THP	503	Performance: the Ensemble	Ensemble, working with a playwright, creates a play that addresses social issues through improvisation and community input.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Prerequisites: Masters of Art or a Masters of Fine Art Theatre student
THP	504	Acting: Styles	Fundamentals including combat, scansion, poetic language, acting style. Scene study, ensemble performance projects focused on Shakespeare, new scripts. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Pre-requisites: THP 503 with a D or better
THP	505	Graduate Colloquium	Orientation to graduate study of theatrical practice; cohort development, introduction to the advanced literature and media in the art form.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Pre-requisites: Master of Fine Art Theatre student

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THP	506	Design Collaboration	Process of production collaboration. Taught in conjunction with THP 519. May be repeated for credit. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Arts or Master of Fine Arts Theatre student;
THP	507	Acting: Advanced Research and Performance	Acting in advanced theatre projects, productions, or collaborative performance in directing classes. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisite:Must be a Master, Master of Fine Arts or PhD student
THP	509	Singing for Actors	Introduces the basics of singing technique. Breath control, resonance, articulation, exploration, and expansion of singing range. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisite:Must be a Master or Master of Fine Arts or PhD student
THP	511	Methods of Teaching Drama	Applies dramatic materials, techniques, and theories with grades K-8 youth. Regular participation with children. Credit is allowed for only THP 511 or 411.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	512	Puppetry Workshop	Surveys puppetry in education, puppetry as an art form in design and performance. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Graduate student
THP	514	Projects in Community-Based Drama	Theories and techniques of improvisational theatre with emphasis on youth. Stresses professional development through projects combining research, theory, and practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite:Must be a Master, Master of Fine Arts or PhD student
THP	518	Advanced Directing Lab	Active discovery of directing concepts through practical exercises and collaboration; deconstruction of contemporary/classic literature. Explores director as primary artist.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	519	Directing: Works in Progress	Advanced projects in directing concentrating on a collaborative process among director, playwright, actors, and designers. Focuses primarily on new scripts or adaptations of literature. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	520	Directing the New Play	Advanced methods and studies in directing, focusing on new play development.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	521	Performance I: Acting and Movement	Advanced studio work in the performer's body, voice, emotion, and imagination; emphasizes physical diagnostics and development.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	522	Performance I: Acting and Voice	Advanced studio work in the performer's voice; emphasizes physical awareness, vocal anatomy, training, and interpretation of texts.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	523	Performance II: Acting and Movement	Advanced studio work in the performer's body, voice, emotion, and imagination.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	524	Performance II: Acting and Voice	Advanced studio work in the performer's voice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	525	Design I: Conceptualization and Collaboration	Conceptual structures of the design process in theatre; development of creativity, flexibility, and communication in the collaborative process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	526	Design I: Drawing and Rendering	Development of drawing and rendering skills, techniques, and evaluation in the presentation, realization, and communication of performance design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	527	Design II: Conceptualization and Collaboration	Readings and research in stage management and participation as a stage manager in a university theatre production	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	528	Design II: Visualization and Presentation	Advanced skills and techniques in rendering, visualizing and presenting design ideas and materials for performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	529	Viewpoints and Composition		N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	530	Advanced Costume Design	Advanced studio projects in costume design for a variety of production forms.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Art or Master of Fine Arts Theatre student
THP	540	Scene Design Applications	Conceptual and practical application of the design process including graphic and sculptural projects. Practical design problems investigated in a lab. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Art or Master of Fine Art Theatre student
THP	545	Lighting Design Applications	Advanced studio projects in stage lighting design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Fine Arts Theatre student
THP	555	Media Design Applications	Advanced applications for skills and practices in media design for live performance, including content creation, systems design, and playback.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	556	Performance Technology		N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	560	Playwright's Workshop	Practice and study of creating characters, dialogue, scenes, plays, and monologues for the stage.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Art Theatre student
THP	561	Scripts in Progress	Studio work with the instructor centered on revisions of original plays.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	582	Theatre for Social Change	Advanced, interactive theatre techniques (e.g., Boal, drama therapy, playback theatre) to examine and combat institutional, social, cultural, interpersonal, and personal oppressions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Fine Arts Theatre student
THP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Theatre Master student
THP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Pre-requisites: Fine Arts Graduate student
THP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Fine Arts Graduate student
THP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Art or Dramatic Writing Theatre student
THP	611	Research in Drama Education	Current research practices in drama education. Development and execution of research projects in ethnographic and arts-based models.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Fine Arts or PhD Theatre for Youth student
THP	618	Theatre for Youth Practicum	Practical experience in theatre for youth projects: improvisation, education, production.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	2-3		Prerequisites: Master of Fine Arts or PhD Theatre for Youth student
THP	649	Design Studio	Projects include design of scenery, costume, lighting, or sound for lab or mainstage productions.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisites: Master of Fine Arts Theatre student
THP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Fine Arts or PhD Theatre student
THP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TMC	233	Desktop Publishing and Infographics	Introduces software and hardware used for desktop publishing and infographics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
TMC	331	Quality Assurance	Instrumentation and methodologies for materials testing and quality control in various manufacturing processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or better in ABS350 or APM301 or QBA221 or STP420 or be currently enrolled.
TMC	346	Management Dynamics	Management challenges and the leadership skills needed to achieve organizational objectives in the changing industrial and technical environments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	396	Professional Orientation	Senior advising, industry presentations, and career counseling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Prerequisites: Must be at least a Junior AND be a Tech Sci BAS or BS student.
TMC	470	Project Management	Introduces techniques for managing small groups within larger organizations, including team building, motivating, planning, tracking activities, and computer tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Technology & Innovation BAS student OR IMC 346, IST 346, MGT 301 or TMC 346 with D or better and APM 301 or STP 420 with D or better. If you have credit for OMT 570, you may not enroll in TMC 470.

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TMC	480	Senior Project	Capstone project experience refining skills in communication, research and information retrieval, critical analysis and criticism, and demonstrating technical competence in each student's area of study. Prerequisite: senior standing in DTM.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
TMC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		Prerequisites: Must be a Tech Sci/Engr: NonDegree or BAS or BS or MS or MS Tech Plan AND have a 2.25 GPA or better.
TMC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		Prerequisites: Must be a Tech Sci: BAS or BS AND have 3.00 GPA or better.
TMC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		Pre Requisites: Graduate or Non Degree Students Only
TMC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TRC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
TWC	200	Impact of Communications Technology on Society	Organizational issues and development of technical communication. Activities include research, evaluations, and presentation of oral arguments in support of positions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have earned C or better in ENG 102, 105, or 108 or be currently enrolled
TWC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TWC	301	General Principles of Multimedia Writing	Introduces writing in a variety of media, understanding the consequences of integrating media, and effective editing techniques.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	347	Written Communication for Managers	Introduces strategies, formats, and techniques of presenting information to business and other workplace audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	400	Technical Communications	Planning and preparing technical publications and oral presentations based on directed library research related to current technical topics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: College of Technology and Innovation BS or BSE student; senior academic level; 2.25 minimum cumulative GPA; ENG 102, 105 or 108 with C or better
TWC	401	Principles of Technical Communication	Basic information design principles to produce effective written, oral, and electronic technical communication. Understanding of rhetorical and audience analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: If you have credit for TWC 501, you may not enroll in TWC 401
TWC	403	Writing for Professional Publication	Analyzes the market and examines the publication process, including the roles of the author, editor, and reviewer.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	411	Principles of Visual Communication	Basic principles of visual communication in print and electronic media. Understanding graphic and document design, including typography and color.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Students who have credit for TWC 511, may not enroll for TWC 411
TWC	421	Principles of Writing with Technology	Understanding historical and social impact of technology on writing, with emphasis on multimedia design, computer-mediated communication, and hypertext.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: If you have credit for TWC 521, you may not enroll in TWC 421
TWC	431	Principles of Technical Editing	Basic principles of technical editing (for print and electronic media) including copyediting, reviews, standards, style, and project management.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: May not enroll in TWC 431, if credit received in TWC 531
TWC	443	Proposal Writing	Develops persuasive strategies and themes for researching and writing professional proposals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have taken TWC 543, you may not enroll in TWC 443

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TWC	444	Manual and Instructional Writing	Design and development of a user manual, writing instructions, improving graphics and page design, and usability testing.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have credit for TWC 544, you may not enroll in TWC 444
TWC	445	Computer Documentation	Introduces writing documentation for the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you received credit for TWC 545, you may not enroll in TWC 445
TWC	446	Technical and Scientific Reports	Introduces strategies, formats, and techniques of presenting information to technical and scientific audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: If you have credit for TWC 546, you may not enroll in TWC 446
TWC	451	Copyright and Intellectual Property in the Electronic Age	Explores issues related to copyright and intellectual property laws, with emphasis on electronic environment. Credit is allowed for only TWC 451 or 551.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have credit for TWC 551, you may not enroll in TWC 451
TWC	452	Information in the Digital Age	Explores the creation, organization, dissemination, and use of information; the impact of technologies; and surrounding economic, legal, and social issues.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for TWC 552, may not enroll in TWC 452
TWC	453	Information and Communications Technology in American History	Explores the historical development of information and related technologies in the United States from colonial times to the present. Credit is allowed for only TWC 453 or 553.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have credit in TWC 553, you may not enroll in TWC 453
TWC	454	Information Technology and Culture	Explores the historical impact and intersection of communications technology and culture in America. Credit is allowed for only TWC 454 or 554.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	C	Pre-requisites: If you have credit for TWC 554, you may not enroll in TWC 454
TWC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	490	Capstone	Development of a professional portfolio, creation of a culminating document, and synthesis of undergraduate experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	492	Honors Directed Study		N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-6		
TWC	493	Honors Thesis		N	LEC	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
TWC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TWC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
TWC	501	Principles of Technical Communication	Basic information design principles to produce effective written, oral, and electronic technical communication. Understanding of rhetorical and audience analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 501 who have credit in TWC 401
TWC	503	Writing for Professional Publication	Analyzes the market and examines the publication process, including the roles of the author, editor, and reviewer.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	511	Principles of Visual Communication	Basic principles of visual communication in print and electronic media. Understanding graphic and document design, including typography and color.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 511 who have credit in TWC 411
TWC	521	Principles of Writing with Technology	Understanding historical and social impact of technology on writing, with emphasis on multimedia design, computer-mediated communication, and hypertext.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 521 who have credit in TWC 421
TWC	531	Principles of Technical Editing	Basic principles of technical editing for print and electronic media, including copyediting, reviews, standards, style, and project management.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 531 who have credit in TWC 431
TWC	543	Proposal Writing	Develops persuasive strategies and themes for researching and writing professional proposals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 543 who have credit in TWC 443
TWC	544	Manual and Instructional Writing	Design and development of a user manual, writing instructions, improving graphics and page design, and usability testing.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 544 who have credit in TWC 444
TWC	545	Computer Documentation	Introduces writing documentation for the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 545 who have credit in TWC 445
TWC	546	Technical and Scientific Reports	Introduces strategies, formats, and techniques of presenting information to technical and scientific audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 546 who have credit in TWC 446
TWC	547	Business Reports	Introduces strategies, formats, and techniques of presenting information to business and other workplace audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	551	Copyright and Intellectual Property in the Electronic Age	Explores issues related to copyright and intellectual property laws; emphasizes electronic environment. Credit is allowed for only TWC 551 or 451.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 551 who have credit in TWC 451
TWC	552	Information in the Digital Age	Explores the creation, organization, dissemination, and use of information; the impact of technologies; and surrounding economic, legal, and social issues. Credit is allowed for only TWC 552 or 452.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 552 who have credit in TWC 452
TWC	553	Information and Communications Technology in American History	Explores the historical development of information and related technologies in the United States from colonial times to the present. Credit is allowed for only TWC 553 or 453.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 553 who have credit in TWC 453
TWC	554	Information Technology and Culture	Explores the historical impact and intersection of communications technology and culture in America. Credit is allowed for only TWC 554 or 454.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TWC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
UET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
UET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	305	Introduction to Microelectronics	Quantifies the role of microelectronics technology and its associated skills as drivers for electronics systems development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisite: Academic Level greater than or equal to Junior
UET	331	Electronic Materials	Physical, chemical, electromagnetic, and mechanical properties of electronic materials. Solid-state device characteristics and their material properties.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in Tech Sci/Engr: BS or BSE; 2.5 GPA or better; D or better in CHM113, EET208, PHY112, PHY114 or be currently enrolled in OR Tech Sci/Engr: Appl Bio Sys,BAS,MS,MS Tech, PhD
UET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	411	Layer Deposition Technology	Fundamentals, applications, and vacuum technology of layer deposition processes used in IC fabrication. Credit is allowed for only UET 411 or 511.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Tech Sci/Engr :MS or MS Tech, BAS, BS, BSE AND have a C or greater in UET331 AND UET417 or be currently enrolled in or Co-enrolledUET331 and UET417.
UET	415	Electronic Manufacturing Engineering Principles	Electronic equipment design and fabrication principles and practice. Completion of electronics hardware design project and report.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2-3		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; Minimum 2.25 GPA; OR Technology and Innovation or Fulton Engineering graduate student
UET	416	Dopant Control Technology	Design and practical realization of charge distribution in microelectronic devices, including ion implantation and diffusion processes. Credit is allowed for only UET 416 or 516.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; UET331 and UET417 with C or better or Corequisite:UET417 OR Technology and Innovation or Fulton Engineering graduate student
UET	417	Semiconductor Technology Practice	Lab-based design and execution of safe and effective semiconductor fabrication operations.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	418	Systems on Silicon	Factors that drive integration on silicon, including logic, memory, and interfaces. Economics of system-level solutions. Credit is allowed for only UET 418 or 518.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25 OR Technology and Innovation or Fulton Engineering graduate student. Students who have credit for UET 518, may not enroll in UET 418
UET	421	IC Device Characterization	Design and operation of the major classes of semiconductor devices. Characterization by parameters and their extraction. Future technology trends.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Have received a C or greater in UET331 or be currently enrolled AND be a Tech Sci: BAS or BS or MS or MS Tech or Grad Non Degree
UET	424	Pattern Transfer Technology	Maskmaking, lithography, and etch processes for integrated circuit fabrication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in a Tech Sci Graduate Plan:MS or MS Tech AND have a C or greater in UET417, OR Corequisite:UET417; you may not enroll in UET 424 if you have credit in UET 524
UET	426	Software Tools for the Semiconductor Industry	Introduces software tools commonly used in the semiconductor industry, such as SUPREM IV, PSPICE, VIEWLOGIC, and ICED.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	432	Semiconductor Packaging and Heat Transfer	Packaging theory and techniques; hermetic and plastic assembly; thermal management; electrical characteristics and reliability.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25 OR Technology and Innovation or Fulton Engineering graduate student: credit allowed for either UET 432 or UET 532 only
UET	437	Process Control and Validation	Statistical process control and its application to IC fabrication. Design, control, and performance validation techniques throughout the manufacturing process. Lecture with Web support. Prerequisite: 300-level statistics course.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Technology and Innovation or Fulton Engineering graduate student; UET 417 with C or better or Co-enrolled: UET417
UET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
UET	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-6		
UET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
UET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25 OR Technology and Innovation or Fulton Engineering graduate student

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UET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; Minimum 2.25 GPA; OR Technology and Innovation or Fulton Engineering graduate student
UET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
UET	511	Layer Deposition Technology	Fundamentals, applications, and vacuum technology of layer deposition processes used in IC fabrication. Credit is allowed for only UET 511 or 411. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	516	Dopant Control Technology	Design and practical realization of charge distribution in microelectronic devices, including ion implantation and diffusion processes. Credit is allowed for only UET 516 or 416.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	518	Systems on Silicon	Factors that drive integration on silicon, including logic, memory, and interfaces. Economics of system-level solutions. Credit is allowed for only UET 518 or 418.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better. Students who have credit for UET 418, may not enroll in UET 518
UET	521	Device Physics	Band structure of solids, electron hole-pairs, mobility, lifetime, fermilevel, pn junctions, diodes, and bipolar and MOS transistors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Grad or Non Degree Grad student; 3.0 GPA or better, OR Senior level; Tech Sci student; 3.0 GPA or better
UET	524	Pattern Transfer Technology	Maskmaking, lithography, and etch processes for integrated circuit fabrication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for UET 424, may not enroll in UET 524
UET	532	IC Packaging	IC packaging theory and techniques; assembly techniques, material issues; thermal management; electrical performance and reliability.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad and have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better. You may not enroll in UET 532 if you have credit for UET 432
UET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UNI	100	Academic Success at the University	Orientation to campus resources, study skills, and other academic and social issues for college students. Introduces an understanding of human diversity, values, and perspectives as they relate to student success.	N	LEC	N	OPT	University College	Dean, University College	3.		

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UNI	101	Student Success Seminar	Understanding human diversity, perspectives, and values as they relate to student success. Orientation to ASU resources, study skills, and academic and social issues for students. Seminar, discussion.	N	SEM	N	OPT	University College	Dean, University College	1.		
UNI	150	Major and Career Exploration	Concepts and skills in the process of selecting a major: self-assessment, research, interviewing, and decision making. Exploration of ASU opportunities and investigation of career options.	N	DIS	N	OPT	University College	Dean, University College	1.		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		
UNI	250	Choosing a Major	Advanced, one-hour career development course helps students make a thoughtful selection of major and consider the career direction that fits best for them. Students complete advanced assessments of interests, personality, and values; investigate relevant majors and careers, including connecting with working professionals; learn effective decision-making strategies; identify barriers and resources; and make connections to new major department.	N	DIS	Y	OPT	University College	Dean, University College	1.		Pre-requisites: UNI 150 Career Exploration with a C or better
UNI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	University College	Dean, University College	1-12		
UNI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	110	Critical Reading and Thinking	Prepares students to be successful in college-level academics and helps them improve their critical reading and critical thinking skills.	N	LEC	N	OPT	University College	University Academic Success Programs	3.		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	University Academic Success Programs	1-4		
UNI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	University Academic Success Programs	1-4		
URB	100	Introduction to Urban and Metropolitan Studies	Introduction to study of urban governance. Explores city, civil society, and urban form from different cultures and historical periods. Credit is allowed for only URB 100 or 300.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	C	
URB	105	Introduction to Urban Governance	Introduces American city growth from past to present. Examines the background of major urban issues emphasizing governance, management, and policy. Credit is allowed for only URB 105 or 305.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	220	Introduction to Urban America	Investigates traditional and evolving forms of civic engagement and management. Examines leadership and organizational models to urban development and decision making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	240	Urban Policy	Examines major theories about the purposes and processes of urban policy formulation, adoption, and implementation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	C	
URB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	300	Urban and Metropolitan Studies	Examines the city using a multidisciplinary approach drawing from different historical, cultural, social, philosophical, and economic issues and concepts. Credit is allowed for only URB 300 or 100.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	301	Urban Research	Introduces the philosophy, scope, and methods of urban affairs research. Includes an overview of quantitative and qualitative methods and research design.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	302	Urban Theory	Examines the sociological, economic, and political theoretical positions underlying the development and evolution of metropolitan areas.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	305	Urban Governance	Examines major shifts and trends in urban America. Concentrates on the changing approaches to governance and policies of urban areas. Credit is allowed for only URB 305 or 105.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	400	Senior Professional Seminar	Demonstrates completion of the urban studies program by synthesizing and applying core knowledge, skills, and abilities to significant urban issues.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	410	Urban Leadership and Collaborative Skills	Emphasizes the changing roles of leadership and collaboration in a complex, diverse, and dynamic urban environment.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
URB	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Public Affairs	1-6	L	Pre-requisites: Must be an Honors student
URB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
USL	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in multiple discipline areas. Requires weekly reflective reading and writing. Fee.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	

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USL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
USL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
VTN	101	Elementary Vietnamese I	Basic skills in modern conversational Vietnamese and development of basic reading and writing skills, with special emphasis on tones.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
VTN	102	Elementary Vietnamese II	Basic skills in modern conversational Vietnamese and development of basic reading and writing skills, with special emphasis on tones.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:VTN 101 with C or better
VTN	201	Intermediate Vietnamese I	Improves speaking, listening, reading, and writing competence through dialogues, reading passages, pattern drill, and grammar and communicative exercises.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:VTN 102 with a grade of C or better or currently enrolled
VTN	202	Intermediate Vietnamese II	Improves speaking, listening, reading, and writing competence through dialogues, reading passages, pattern drill, and grammar and communicative exercises.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:VTN 201 with a grade of C or better or currently enrolled
VTN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	321	Advanced Vietnamese and Literature I	Readings from modern, contemporary, and folk literatures as well as current periodicals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:VTN 202 with a grade of D or better, or currently enrolled
VTN	322	Advanced Vietnamese and Literature II	Continuation of VTN 321. Readings from modern, contemporary, and folk literatures as well as current periodicals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:VTN 322 with a grade of D or better, or currently enrolled
VTN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WAC	107	Introduction to Academic Writing for International Students	For students from non-English-speaking countries. Combines classroom and supplemental instruction with intensive reading, writing, and discussion.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: TOEFL score of 0-559, ACT score of 0-18, SAT score of 0-460 or Accuplacer score of 0-4 (if test taken prior to May 12, 2009, then score 0-7)
WAC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WAC	107	Introduction to Academic Writing for International Students	For students from non-English-speaking countries. Combines classroom and supplemental instruction with intensive reading, writing, and discussion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: TOEFL score of 0-559, ACT score of 0-18, SAT score of 0-460 or Accuplacer score of 0-4 (if test taken prior to May 12, 2009, then score 0-7)
WPC	101	Student Success in Business	Introduces students to resources that help them to succeed in the W. P. Carey School of Business.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		
WPC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WPC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WPC	301	Business Forum	Provides professional program business students with information on careers, interviewing, job hunting, and resumé skills. Must be taken in the first semester of the professional program for business students.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		Pre-requisites: Must be a W.P. Carey degree program business student
WPC	302	Honors Professional Development	Provides a foundation for developing key professional knowledge and skills required for future business and personal success. Strategic thinking and design, scenario development, verbal and written persuasion, direct marketing techniques, systems thinking, relationship development, research design, and decision-making models.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		
WPC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		Pre-requisites: Must have a minimum GPA of 2.00; Must have a minimum total earned hours of 56
WPC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WPC	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Prebusiness Office	1-6		
WPC	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Prebusiness Office	1-6	L	Pre-requisites: Must be an Honors student
WPC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		Pre-requisites: Must be W. P. Carey BS or BA degree program student; junior or senior standing.
WPC	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-6		
WPC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Prebusiness Office	1-3		
WPC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-12		
WPC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WSH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	330	Women, Film, and Culture	Explores how narrative films portray women, romantic relationships, and the possibilities for social change in gender relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WSH	370	Sex and the City: Women, Sexuality, and Popular Culture	Examines the changing construction of young, sexually autonomous women in the city by popular media in post-WWII America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: WST 100 or WST 300 with D or better
WSH	385	American Indian Women	Investigate the economic, political and ideological factors contributing to American Indian women's intellectual and creative activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites:WST 100 or WST 300 with a grade of D or currently enrolled
WSH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	413	Lesbian, Gay, and Gender Studies	Explores lesbian, gay, bisexual, transgender, and queer experiences in the U.S. and globally, from sociological, psychological, historical, and literary perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	420	Women of Color in Film	Analyzes the history and representations of women of color in film and film industry through the intersections of gender, race, sexuality, class, and nationalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
WSH	421	Girlhood and Adolescence	Examines the changing construction of girlhood and female adolescence through history, memoir, fiction, myth, music, and media.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU	
WSH	464	Voices and Visions	Explores the contributions of visionary women in the humanities; topics vary from semester to semester. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	470	Women and Popular Culture	Interdisciplinary examination of how gender is constructed in popular cultural forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
WSH	470	Women and Popular Culture	Interdisciplinary examination of how gender is constructed in popular cultural forms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
WST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	300	Women in Contemporary Society	Intensive interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	313	Women and Sexuality	Explores feminist theories about women's sexuality and the relationship of these theories and related research to women's experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	360	Women as Healers	Examines the role of women as caregivers, healers, physicians, midwives, and nurses in different cultures and historical periods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G	
WST	372	Women in Judaism	Studies the legal, social, and cultural status of Jewish women in various historical and contemporary societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	373	Latina/Chicana Issues	Examines the roles Mexican American, Chicana, and/or Latina immigrant women play historically, socially, and politically in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	375	Women and Social Change	Combines research and theory on a contemporary social problem with a community action experience focusing on women's social change initiatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
WST	377	History of American Feminist Thought	Explores the development of American feminist theory from its roots to 1975.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	H & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	378	Global Feminist Theory	Global feminist theories and exploration of the intersections of gender, race, ethnicity, class, and nation through critical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & C & G	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	380	Gender, Race, and Class	Explores cultural diversity, class, and gender issues in American social life.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: WST 100 or WST 300 with D or better
WST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	410	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	
WST	440	Politics of Women's Health	Interdisciplinary exploration of how women's social, cultural, and economic position affect their health and health care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: WST 100 or WST 300 with D or better or currently enrolled
WST	457	Gender, Culture, and Development	Economic, cultural, and sociopolitical contexts for understanding women's roles related to health, family, work, education, and politics in developing countries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	Pre-requisites: May not sign up for WST 457 if received credit for SGS 454
WST	460	Women and the Body	Interdisciplinary look at how representations of woman as body permeate culture and affect a woman's sense of self.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	477	Women and Violence	Global examination of forms of violence against women at the individual, institutional, and cultural levels, and efforts to control it.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
WST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
WST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-7	L	Pre-requisites: WST 100 or 300 with a C or better or currently enrolled
WST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Liberal Arts and Sciences	School of Social Transformation	1-3		
WST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	601	Critical Concepts of Gender	Key concepts, theoretical frameworks, disciplinary and interdisciplinary approaches, and the critical debates that have shaped the field of gender studies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	602	Mapping the Intersections of Gender	Theoretical concepts, metaphors, and frameworks employed by feminist scholars to understand the way gender articulates with other categories of difference.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	603	Engendering Methodology	Focuses on the methodologies, epistemologies, and ethical dilemmas of researching gender.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	640	Visual and Narrative Culture	Feminist and semiotic theory to examine gender representations in visual and narrative culture including film, dramatic literature, fiction, and autobiography.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	701	Research Design and Proposal Development in Gender Studies	Prepares students for careers in gender studies by developing skills in research design, proposal writing, and identifying funding outlets.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
WST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
WST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	276	Feminist Foundations: Going to the Sources	Historical survey of sources influential in the development of the feminist movement in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
WST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	300-W	Women in Contemporary Society	Interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	320	Women in Popular Culture	Analyzes from a historical perspective the images of women in magazines, films, advertising, toys, and other popular culture forms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	333	Critical Perspectives on Sexuality	Examines critical theories of sexuality, including history, commerce, pleasure, LGBT issues, identity, medicalization of sexuality, disorders, sex crime, and pornography.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	350	Race, Class, and Gender	Explores the intersections of race, class, and gender in the U.S. and world, as forces of social control, oppression, and liberation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	370	Chronicling Women's Lives	Explores the lives of a selected group of American women as a point of departure for the chronicling of contemporary women's lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	376	Feminist Theory	Explores feminist theories and the intersection of gender, race, ethnicity, and class through critical analyses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H & C	Pre-requisites: WST 100 or WST 300 with D or better
WST	385	Psychology of Gender	Examines, from a psychological perspective, the similarities and differences in beliefs, attitudes, and behaviors of women and men.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
WST	390	Women and World Religions	Comparative examination of vital issues about women and religions in different places of the world and different historical periods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	430	Gender on the Borderlands	Examines women's status in the U.S.-Mexico borderlands through key issues such as migration, labor, violence, education, and culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	431	Women and Film	Comparative international course explores ways feminist directors have broken the Hollywood mold in films focusing on women.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	C	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	444	Women and Health	Explores women's health from a feminist perspective, including critical analyses of women's bodies in medical, feminist, and popular literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
WST	457-W	Women, Cultures, and Societies	Examines issues such as poverty, dependency, interdependency, race, class, and gender in different societies of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	467	Ethnic Women Writers	Concentrates on selected women writers of the U.S. who are Native American, African American, Latina, and Asian-American.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	473	Latina/Chicana Representation	Examines from an interdisciplinary perspective contemporary issues experienced by Chicana/Latina women in the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	475	Women of the Diaspora across Cultures	Examines the socioeconomic condition, political formation, and identities of contemporary indigenous, ethnic minority, immigrant, and migrant women globally.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
WST	480	Gender Issues in Education	Examines the relationship between gender and educational access and outcomes as a result of public policy in a variety of communities and settings.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	483	Women Writers Across Cultures	Comparative approach to contemporary writings by women from around the world.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
WST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	485	Women, Gender, and Leadership	Explores the gendered nature of leadership and studies strategies that enable women to lead successfully in areas such as business, education, and public service.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	487	Gender and International Development	Addresses conceptual, methodological, and theoretical issues concerning gender, development, and internationalism; evaluates theories and models for change.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
WST	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
WST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7	L	Pre-requisites: WST 100 or 300 with a C or better or currently enrolled; ENG 101 or 105 with a C or better or currently enrolled
WST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
WST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	300	Women in Contemporary Society	Intensive interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	375	Women and Social Change	Combines research and theory on a contemporary social problem with a community action experience focusing on women's social change initiatives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
XBA	101	Campus Match: Business	This prefix is used only to schedule clusters of classes for various university programs.	N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	0.		
XEE	101	Campus Match:Extended Ed	This prefix is used only to schedule clusters of classes for various university programs.	N	LEC	N	OPT	EE - CONV	Arizona State University	0.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
YDL	201	Introduction to Youth Studies	Introduces a perspective on the everyday lives of youth in regard to experience, sex, age, relational context, and identity.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	210	Urban Youth and Youth Studies	Explores the lives of young people from 12 to 22 years old in urban neighborhoods, communities, and cities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	301	Adolescent and Youth Development Leadership	Applies theory and research about youth, including how findings can be used and how theories facilitate behavior understanding.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	450	Youth Policy	Examines various federal and state policies designed for youth, how and why policies for youth are constructed.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Winter 2009

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AAD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AAD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AAD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AAD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AAD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
AAD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AAD	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design MS student
AAD	551	Architectural Management I	Design delivery, coordination of construction documents, cost estimating, bidding and negotiations, construction observation, and postconstruction services.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Bldg Des(Facilities Dev/Mgt) Graduate Architecture student
AAD	552	Architectural Management II	Organizational, human performance, and market influences on architecture firms and projects. Readings, case studies, and analysis of managerial problems and solutions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Building Design MS, Master of Architecture, Master of Urban Design or Master of Landscape Architecture student
AAD	555	Architect as Developer	Development building, real estate, construction funding, land acquisition, and the sources for capital.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AAD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ABS	130	Introduction to Environmental Science	Introduces soil resources, their physical and chemical properties, classification, energy dynamics, and the role they play in environmental quality.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
ABS	207	Applied Plant Taxonomy	Introduces identification of vascular plants emphasizing seed plants. Surveys seed plant families. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	225	Soils	Fundamental properties of soils and their relations to plant growth, nutrition of man and animals, and environmental quality. Both ABS 225 and ABS 226 must be taken to secure General Studies SQ credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
ABS	226	Soils Laboratory	Selected exercises to broaden the background and understanding of basic soil principles. Both ABS 225 and ABS 226 must be taken to secure General Studies SQ credit.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
ABS	260	Fundamentals of Urban Horticulture	Principles and practices of horticulture, emphasizing development, growth, and propagation of horticultural plants and environmental factors that affect these processes. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
ABS	270	Sustainable Biological Systems	Ecological foundations of sustainable biological systems, anthropogenic impacts on ecosystem structure and function, and ecological risk assessment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	274	Introduction to Wildlife Management	Managing wildlife in the Southwest, including life histories of small game, fur bearers, big game, and selected nongame specials. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	301	Technology and Biology	Demonstrations of a broad range of innovative technologies in molecular biology, cellular and organismal biology, horticulture, and wildlife and restoration ecology. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	302	Ethical and Policy Issues in Biology	Policy environment and ethics in the practice of biology. Covers ethical reasoning, policy formulation, and regulatory agencies with examples from biotechnology and the environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	311	Applied Cellular Biology	Overview of the biology of the cell; emphasizes structure and function of biomolecules within the cell.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	312	Structure and Function	Surveys structural and functional attributes of plant and animals of particular importance in the applied biological sciences. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	350	Applied Statistics	Statistical methods with applications in the biological sciences and natural resource management. Uses computers and the Internet.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
ABS	355	Vertebrate Zoology	Classification, anatomy, and physiology of the vertebrates.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	360	Southwest Home Gardening	Multimedia course for nonmajors surveying contemporary topics in Southwest home horticulture, including landscaping, flower and vegetable gardening, citriculture, interiorscaping, and others.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	362	Landscape Plants and Design	Identification, design, and use of plants in urban landscapes. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	363	Landscape and Turf Irrigation	Design, management, and maintenance of landscape and turf irrigation systems. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	364	Urban Forestry	Care, maintenance, and valuation of the urban forest, including public and private landscape codes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	367	Urban Parks	Overview of the management and maintenance of private and public parks, urban greenspaces, and recreational areas. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	368	Plant Propagation	Theory and application of sexual and asexual propagation techniques. Considers plant materials used both for urban horticulture and ecological restoration applications. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	370	Ecology	Interactions between organisms and their environments; structure and dynamics of populations, communities, ecosystems, and landscapes, with emphasis on vegetation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	372	Ecology: Ecosystems and Landscapes	Structure and function of ecosystems, interactions of pattern and process in landscapes	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	375	Conservation Biology	Principles of conservation biology, management of threatened species and ecosystems, biodiversity patterns; emphasizes issues in the Southwest. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ABS	376	Wildlife Ecology	Examines ecological principles underlying wildlife population dynamics with emphasis on physiology, genetics, nutrition, and habitat factors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	378	Wildlife Nutrition	Principles of nutrient metabolism in wildlife species; emphasizes understanding the interaction of wildlife with their environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	380	Restoration and Wildlife Plants	Important wildland plants, including invasive and endangered species, wildlife food species, and species used for ecosystem restoration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	381	Natural Resources Policy	Policies and regulations affecting management of natural resources, with emphases on wildlife and ecological restoration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	401	Intermediate Statistics	Analysis of variance, multiple comparisons, multiple regression.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	402	Vegetation and Wildlife Measurement	Vegetation inventory, sampling, monitoring, and evaluation. Methods of estimating wildlife populations, activity, and home ranges.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	425	Soil Classification and Management	Principles of soil genesis, morphology, and classification. Presents management and conservation practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	430	Watershed Management	Hydrologic, physical, biological, and ecological principles applied to watershed management. Impact of ecosystem manipulations on water yield and quality.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	433	Riparian and Wetland Ecology	Functions and components of riparian and wetland ecosystems and the management of these systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	434	Soil Ecology	Soils viewed in an ecosystem context, soil-plant relationships, nutrient budgets, and abiotic factors that influence soil processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	435	Applied Systems Ecology	Simulation modeling as a tool to study ecological processes and human impact on ecosystems and organisms.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	440	Ecological Restoration Techniques	Techniques for ecological restoration, riparian and wetland restoration, and monitoring restoration success.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	441	Ecological Restoration Practicum	Field experience in the evaluation and monitoring of implemented ecological restoration projects. fee	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ABS	460	Organic Gardening	Applies principles and practices of organic gardening in the low desert, including environmental impacts of modern food production. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	462	Greenhouse/Nursery Management	Greenhouse structures, environment, and nursery operations. Includes irrigation, nutrition, and other principles relative to production of nursery crops. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	463	Golf and Sports Turf Management	Selection, establishment, and maintenance of turf grasses bred specifically for golf and sports facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	465	Senior Enterprise Project	Selection and completion of an urban horticulture project with faculty advisor approval related to the field of study.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	470	Mammalogy	Classification and biology of mammals, emphasizes North America.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	471	Ornithology	Classification and biology of birds, emphasizing North America. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	475	Habitat Management for Small Wildlife	Habitat management considerations and practices for small game and nongame wildlife species in North America. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	476	Big Game Habitat Management	Habitat management considerations and practices for big game wildlife species in North America. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	480	Ecosystem Management and Planning	Principles of ecosystem management, with emphasis on economic and policy constraints on the planning process. Risk assessment and management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	L	
ABS	481	Riparian and Wetland Restoration	Principles and problems in the restoration of degraded riparian and wetland ecosystems. Construction of wetlands.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	482	Ecology and Planning for Restoration	Ecological principles and resource planning processes applied to the restoration of degraded landscapes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	483	Restoration Planning Practicum	Field experience in ecological restoration techniques, selection of mitigation techniques, and implementation planning. Fee.	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	485	GIS in Natural Resources	Principles of Geographic Information Systems (GIS) utilized in natural resource management. Use of computers for spatial analysis of natural resources.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	486	Introduction to Remote Sensing	Remote sensing technologies in natural resource management using computerized data from aerial photography and satellite imagery. Not for graduate credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ABS	489	Undergraduate Research	Undergraduate research under the supervision of an applied biological sciences faculty member.	N	RSC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ABS	490	Applied Biological Sciences Seminar	Current literature and significant developments related to applications of the biological sciences. May be repeated for credit.	N	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ABS	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-6		
ABS	493	Honors Thesis		N	THE	N	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-6	L	Pre-requisites: Must be an Honors student
ABS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-7		
ABS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ABS	540	Plant Responses to Environmental Stresses	Reaction of plants to environmental stresses: aerial pollutants, fire, herbivores, floods, mechanical treatments, pesticides, and soil amendments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	550	Vegetation Dynamics	Dynamics of vegetation linking physiological, population, and community ecology. Collection and analysis of vegetation data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	551	Advanced Environmental Analysis	Advanced statistical procedures and experimental design for the biological sciences. Techniques for analyzing data that do not meet statistical assumptions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	553	Riparian Ecology	Review of recent literature, developments, and methods related to riparian ecology. Applies soil and landscape ecology to riparian systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	560	Dynamic Spatial Modeling	Simulation modeling of landscapes, animal populations, and ecological processes in space and time. May use modeling tools on computer clusters.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	570	Advanced Animal Nutrition	Metabolic and physiological interactions of nutrients in wild and domesticated animals consuming natural feeds.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	586	Remote Sensing in Environmental Resources	Principles and application of remote sensing technologies in natural resource management using computerized data from aerial photography and satellite imagery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ACC	231	Uses of Accounting Information I	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Not open to Pre-BIS or Interdisciplinary Studies students; CIS 105, 220 or 236 with C or better
ACC	241	Uses of Accounting Information II	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: ACC 231, ACC 261 or ACC 303 with C or better

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ACC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-3		
ACC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	231	Uses of Accounting Information I	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Not open to Pre-BIS or Interdisciplinary Studies students; CIS 105, 220 or 236 with C or better
ACC	241	Uses of Accounting Information II	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: ACC 231, ACC 261 or ACC 303 with C or better
ACC	261	Honors Fundamentals of Financial Accounting	Covers basic financial accounting concepts and applications. Develops an understanding of the environment in which financial reporting choices are made.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Must be an Honors student; Must have completed CIS 105 or CIS 220 with a grade of C or greater or be currently enrolled
ACC	271	Honors Fundamentals of Managerial Accounting	Covers basic managerial accounting concepts and applications.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Must be an Honors student; Must have completed ACC 231, ACC 261 or ACC 303 with a grade of C or greater
ACC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	315	Financial Accounting and Reporting	Accounting theory and practice related to uses of financial statements by external decision makers.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey BS or BA student (not open to Accountancy students); or non-bus student with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and 56 earned hrs; ACC 231 and ACC 241 with C or better
ACC	316	Mgmt Uses of Accounting	Uses of accounting information for managerial decision making, budgeting, and control.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey BS or BA student (not open to Accountancy students); or non-bus student with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and 56 earned hrs; ACC 241 with C or better
ACC	326	External Financial Reporting I	Theory, U.S. standards, and practice applicable to financial statements, revenue recognition, and assets.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student OR be pursuing an Accountancy or Prof Accountancy certificate
ACC	327	External Financial Reporting II	Theory, U.S. standards, and practice applicable to equities, cash flow statement, earnings per share, leases, pensions, and other essential topics.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: School of Global Management and Leadership Accountancy student; ACC 326 with C or better
ACC	336	Cost Management and Control	Concepts and principles for product costing, planning and control, and internal decision making.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate
ACC	340	External Reporting I	Financial accounting theory and practice related to external reporting.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy or Finance BS student; ACC 241, and ECN 221 with a grade of C or better. Pre- or co-requisite: FIN 300 or FIN 302 or FIN 303.
ACC	346	Information Systems Management	Information requirements and transaction processing for integrated accounting systems emphasizing database systems analysis and design, controls, and computer processing.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS or a Global Management student with Professional status
ACC	350	Internal Reporting	Internal reporting systems for planning, control, and decision making.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Finance BS student; ACC 241, and ECN 221 with a grade of C or better.
ACC	356	Income Tax Accounting	Public policy concepts and rules of federal income tax for all taxpayers. Individual tax returns and use of tax software.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate AND ACC 326 with C or better
ACC	361	Accounting Technology	Use and understanding of a computerized accounting package and other software for accounting applications.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate AND ACC 326 and 336 and 346 with C or better
ACC	382	Accounting and Financial Analysis	Introduces nonbusiness majors to financial accounting concepts related to operating, financing, investing, and ethical decisions.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Non-Accountancy student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
ACC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	410	Contemporary Financial Reporting	Topics include financial statements, roles and effects of accounting information in society, policy setting, managers' choice of accounting techniques. Cannot be used for major credit in Accountancy.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Business/Financial Mgt BS student AND have completed with a C or better FIN 300 or 301 or be currently enrolled or not be pursuing an Accountancy or Professional Accountancy certificate
ACC	426	Advanced Reporting: Consolidation, International, and Not-for-Profit Topics	Consolidated financial statements, not-for-profit accounting, and international accounting standards and topics including foreign currency transactions and translation.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326.
ACC	430	Taxes and Business Decisions	Federal income taxation of sole proprietors, partnerships, corporations, fiduciaries, and individuals with an emphasis on tax consequences of business and investment decisions.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 340 and LES 305 with C or better
ACC	436	Advanced Topics in Cost Management	Issues in contemporary manufacturing environments. Topics include cost estimation, activity-based management, just-in-time inventories, budgeting, and variances.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326, 331 or 336 or be currently enrolled
ACC	440	External Reporting II	Continuation of ACC 340 with emphasis on the recognition, research, and resolution of financial reporting issues.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Finance BS student; ACC 340 with C or better
ACC	444	Enterprise Process Analysis and Design	Analysis and design of efficient and effective business processes. Emphasizes taking advantage of new information technologies to improve managerial decision making. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Computer Info Systems BS student; ACC 241 and ECN 221 with a grade of C or better.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ACC	450	Principles of Auditing	Standards and procedures in auditing. Planning, evidence gathering and accumulation, and reporting. Ethical and legal considerations. fee	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 440 and 444 with C or better
ACC	456	Advanced Taxation	Advanced problems in business and fiduciary income tax. Formation, operation, and liquidation of corporation and partnerships. Use of research software.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must have completed ACC 351 or 356 AND ACC 326 with a grade of C or better
ACC	476	External Auditing	Theory and standards underlying the attestation process. Topics include evidence gathering, analysis, reporting, and development of professional judgement skills.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student OR Accountancy or Professional Accountancy Certificate; ACC 322 or 327 with C or better; ACC 346 or 347 with C or better
ACC	477	Internal Auditing	Contemporary issues and practices of internal auditing. Standards and process of management/operation audits.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326 or ACC 346 or 347.
ACC	478	Governmental and Not-for-Profit Accounting	Accounting and reporting systems for governmental entities, healthcare organizations, colleges and universities, and other nonprofit organizations.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 321 or 326 or be currently enrolled
ACC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	School of Accountancy	1-6		
ACC	493	Honors Thesis		N	THE	N	Z1	W.P. Carey School of Business	School of Accountancy	1-6	L	Pre-requisites: Must be an Honors student
ACC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Accountancy BS student
ACC	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-6		
ACC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-7		Pre-requisite: Accountancy BS, Finance BS or Economics BS student
ACC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-3		Pre-requisite: Accountancy BS student
ACC	502	Financial Accounting	Contemporary financial accounting and reporting systems; emphasizes the interpretation and evaluation of a company's external financial reports.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	2-4		Pre-requisite: MBA student
ACC	503	Managerial Accounting	Managerial accounting concepts and procedures for internal reporting applied to the decision making activities of the professional managers.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	2-4		Pre-requisite: MBA student
ACC	511	Taxes and Business Strategy	Economic implications of selected management decisions involving application of federal income tax laws. Recognition of tax hazards and tax savings.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	512	Advanced Auditing	Builds on the skills obtained in the beginning auditing (assurance) course and focuses on audit planning, risk assessment, evidence, and reporting procedures and fraud.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Master of Accounting student
ACC	513	Advanced Financial Accounting	Focuses on advanced financial accounting topics along with their application in the financial reporting process.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Specific Business Graduate majors
ACC	525	Accounting Theory	Examines GAAP and the broader implications of financial accounting in a market economy while balancing the varied interests of diverse stakeholders.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: must be in the Accountancy & Appl Leadership graduate plan.
ACC	529	Fraud Accounting	Surveys a variety of topics, including types of fraud, the prevention and detection of fraud, and fraud investigations.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	536	Advanced Topics in Cost Management	Emphasizes cost management topics for manufacturing, merchandising, and service industries while adopting the perspective of the user of cost management information.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	561	Auditing Through the Computer	Presents general IT audit concepts, terms, standards, practices, and current tools and techniques.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	567	Financial Models in Accounting Systems	Development and application of financial models by accountants. Analysis of decision support systems as financial modeling environments.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisites: Specific Business Graduate students only
ACC	571	Taxation of Corporations and Shareholders	Tax aspects of the formation, operation, reorganization, and liquidation of corporations and the impact on shareholders.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	573	Taxation of Pass-Through Entities	Tax aspects of the definition, formation, operation, liquidation, and termination of a partnership. Emphasizes tax planning.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	575	Family Tax Planning and Wealth Transfer Taxation	Tax treatment of wealth transfers at death and during lifetime, with emphasis on tax planning.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	577	Internal Auditing	Examines the vocabulary, concepts, logic, principles, processes, and techniques of auditing.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: must be in the Accountancy & Appl Leadership graduate plan.
ACC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	582	Information Security of Interorganizational Systems	Function and responsibility of the information security officer. Advanced topics in security methods and technology.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors

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ACC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	585	Performance Measurement and Advanced Managerial Accounting	Applies quantitative techniques to accounting problems.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Business Graduate student
ACC	586	Shareholder Value Creation and Financial Statement Analysis	Develops skills necessary to exploit financial reporting information in a business environment and appreciation of reporting issues faced by management.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	588	Professional Accounting Research	Applies the technical knowledge of accounting theory and principles developed in other academic courses through the use of "real life" case studies, where such knowledge and professional judgment is applied in resolving advanced accounting problems and issues.	N	RSC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: W. P. Carey Master of Accountancy student
ACC	589	Multijurisdictional Tax II	Addresses the U.S. taxation of U.S. individuals and businesses that do business outside the U.S. as well as the U.S. taxation of foreign persons and tax treaties, allocation of income, foreign tax credits, and transfer pricing. Emphasizes planning related to some of the tax issues that commonly arise in cross-border businesses.	N	RSC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: W. P. Carey Master of Taxation student
ACC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Specific Business Graduate majors
ACC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Specific Business Graduate majors
ACC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	596	Accounting and Leadership Capstone Project	Case-based course dealing with the pragmatics of managing risk in a variety of business settings, including public accounting, consulting, and industry.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		

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ACC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Business Administration (Accountancy) PHD student
ACC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-15		
ACC	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	School of Accountancy	1-15		
ACO	100	Overview of Applied Computing	Internet and HTML, XML, databases, networks and distributed processing, digital media and graphic design. Opportunities, professionalism, and ethics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
ACO	101	Introduction to Computer Science	Concepts of problem solving, structured and object-oriented programming in Java, fundamental algorithms, computer system concepts. Social and ethical responsibilities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: MAT117 or higher with C or better
ACO	102	Principles of Computer Science	Issues and concepts throughout computer science, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Java programming. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: ACO 101 with C or better
ACO	201	Data Structures and Algorithms	Static and dynamic data structures, recursive and iterative sorting and searching, object-oriented design and programming, software design models and implementation/testing strategies, professional responsibilities. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: ACO 102 and MAT 210 with C or better
ACO	210	Introduction to Systems Programming	Introduces operating systems as resource managers, processes, threads, memory allocation, file systems, protection, system calls, application program interfaces. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: ACO 201 with C or better
ACO	220	Introduction to Database Systems	Introduces database management systems concepts. Entity-relationship and relational data models. Database design. Relational algebra, calculus, and SQL query languages. Query optimization. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: ACO 201 and MAT 243 with C or better
ACO	320	Database Systems and Transaction Processing	Relational database normalization theory, stored procedures, triggers, and call-level interface. Data-centric XML. Transaction processing in centralized and distributed databases. Security. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 220 with C or better
ACO	330	Computer Networks	Network architecture and protocols, flow and congestion control, switching and routing, link-layer technologies, medium access control, physical layer basics, quality-of-service, security. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 102 with C or better
ACO	331	Network Design	Fundamental network design principles, internetworking design, network architectures, network management, traffic analysis, security management, case study and hands-on experiments. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 330 with C or better
ACO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	420	Object Databases	Object-oriented conceptual modeling, object-oriented databases, object-relational databases, applications. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	421	Data Mining and Warehousing	Introduces data mining from a database perspective, including classification, clustering, and association rules. Data warehousing methodologies. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	422	XML and Databases	XML data model, schema specification and validation, querying, storage, indexing, and current research topics. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	430	Wireless Networks	Wireless transmission fundamentals, multiple access techniques, error detection and control, cellular concepts and systems, wireless LAN, performance analysis, recent advances. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210, ACO 330 and STP 300 with C or better
ACO	431	Network Security	Digital threats and attacks, cryptography, confidentiality, authentication protocols, message integrity, security in network applications, intrusion detection, malicious software countermeasures, firewalls. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210, ACO 330 and MAT 243 with C or better
ACO	432	Distributed Systems	Distributed system models, distributed programming technique, clock synchronization, distributed snapshot, distributed mutual exclusion, concurrency control, fault tolerance, security, recent advances. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210 and ACO 330 with C or better
ACO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		

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ACO	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6	L	Pre-requisites: Must be an Honors student
ACO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-7		
ACO	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
ADE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ADE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	321	Architectural Studio I	Introductory building design problems. Emphasizes design process, communication methods, aesthetics, construction, and technology. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Architecture student; ALA 240 with C or better
ADE	322	Architectural Studio II	Site and building design problems. Emphasizes programmatic and environmental determinants and building in natural and urban contexts. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must have completed ADE 321 with a grade of C or better or be currently enrolled; must be an Architectural Studies student
ADE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	421	Architectural Studio III	Topical design problems of intermediate complexity, including interdisciplinary problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: ADE 322 with C or better; Co-requisites: APH 421, ATE 451, ARP 484
ADE	422	Architectural Studio IV	Topical design problems of advanced complexity, including interdisciplinary problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be an Architectural Studies student; Must have completed ADE 421 with a grade of C or greater or be currently enrolled; Must have completed ARP 484 with a grade of Y or be currently enrolled
ADE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ADE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ADE	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
ADE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ADE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ADE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Master of Architecture, Master of Landscape Architecture, or Master of Urban Design

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ADE	510	Foundation Architectural Studio	Fundamentals of architectural design, methodology, visualization, and representation. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Master of Architecture student; Co-requisite: ATE 553 and ATE 563
ADE	511	Core Architectural Studio I	Applies design fundamentals in architectural problems, including construction, technology, programmatic and environmental determinants. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Must be Master of Architecture student; must have completed ADE 510 with a grade of C or greater or be currently enrolled
ADE	512	Core Architectural Studio II	Applies architectural design fundamentals to increasingly complex problems, including specific sites and activities. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Must be Master of Architecture student; must have completed ADE 511 with a grade of C or greater or be currently enrolled
ADE	521	Advanced Architectural Studio I	Design problems emphasizing theory, aesthetics, and tectonics as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; Co-requisite: ATE 553 and ATE 563
ADE	522	Advanced Architectural Studio II	Design problems emphasizing the comprehensive integration of building systems and technologies as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; ADE 521 with a C or better; Co-requisites: APH 505 and ATE 556
ADE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	621	Advanced Architectural Studio III	Design problems emphasizing the urban context, planning issues, and urban design theory as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; ADE 522 with a C or better; Co-requisite: APH 515 OR Bldg Des(Energy Perform/Bldgs) MS student
ADE	622	Advanced Architectural Studio IV	Individual, student-initiated project reflecting a culminating synthesis of architectural ideas. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; ADE 522 with a C or better; Co-requisites: APH 515 OR Bldg Des(Energy Perform/Bldgs) MS student
ADE	661	Bioclimatic Design Studio	Sustainable architectural and site synthesis at a variety of scales emphasizing bioclimatic criteria and the use of passive and low-energy systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must either be Master of Architecture or Bldg Des(Energy Perform/Bldgs) MS student
ADE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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ADE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AEC	10-D	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	10-M	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	10-M	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-D	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-M	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-M	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23-D	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23-M	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	30	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31-D	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31-M	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	41-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	41-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	42	Basic 1 Grammar		N	LEC	N	GNA	EE - CONV	Arizona State University	0.		
AEC	42	Basic 1 Grammar		N	LEC	N	GNA	EE - CONV	Arizona State University	0.		
AEC	50-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	50-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	51-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	51-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	60-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	60-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	61-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	61-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate Toefl		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate Toefl		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business Across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business Across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	70-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	70-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	71-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	71-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	72-D	Intermediate 2 Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	72-M	Intermediate 2 Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	75	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	75-D	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		

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AEC	75-M	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76-D	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76-M	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	77	Idioms		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	77-D	Idioms		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	77-M	Idioms		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	80-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	80-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	81-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	81-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82-D	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82-M	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	83	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	83-D	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	83-M	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	84	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	84-D	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	84-M	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	90-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	90-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	91-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	91-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	20	Listening/Speaking		N	LEC	N	GNA	University College	NC American English and Culture Program	3-9		
AEC	20-D	Listening/Speaking		N	LEC	N	AUD	University College	NC American English and Culture Program	0.		
AEC	20-M	Listening/Speaking		N	LEC	N	AUD	University College	NC American English and Culture Program	0.		
AEC	22	Special Programs Training		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	22	Special Programs Training		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	24	Special Programs Field-Based Learning		N	LEC	N	OPT	University College	NC American English and Culture Program	3.		
AEC	24	Special Programs Field-Based Learning		N	LEC	N	OPT	University College	NC American English and Culture Program	3.		
AEC	25	Special Programs English for Specific Purposes		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		

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AEC	25	Special Programs English for Specific Purposes		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	26	Special Programs Project Work		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	26	Special Programs Project Work		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	27	Special Programs Current Issues and Topics		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	27	Special Programs Current Issues and Topics		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	28	Special Programs Survival English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	28	Special Programs Survival English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	32	Evening English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	32	Evening English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	33	Evening English ST: Language Test Preparation		Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	33	Evening English ST: Language Test Preparation		Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	34	Evening English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	34	Evening English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	35	Weekend English ST: Business English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	35	Weekend English ST: Business English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	36	Weekend English ST: Academic English		N	LEC	Y	GNA	University College	NC American English and Culture Program	3-9		
AEC	36	Weekend English ST: Academic English		N	LEC	Y	GNA	University College	NC American English and Culture Program	3-9		
AEC	37	Weekend English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	37	Weekend English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	38	Weekend English ST: Language Test Preparation		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	38	Weekend English ST: Language Test Preparation		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	39	Weekend English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	39	Weekend English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	40	Basic 1 Listening/Speaking	On completing the Basic 1 Listening/Speaking course, a student will be able to (1) follow directions and comprehend main ideas and supporting details of short, simple passages and conversations spoken slowly; and (2) speak informally to express basic needs, habits and descriptions in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	41	Basic 1 Reading/Writing	On completing the Basic 1 Reading/Writing course, a student will be able to (1) recognize main ideas and find supporting details in selected reading passages of a few pages; and (2) produce a guided writing with a personal point of view, demonstrating level-appropriate control of grammar, word forms, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	41	Basic 1 Reading/Writing	On completing the Basic 1 Reading/Writing course, a student will be able to (1) recognize main ideas and find supporting details in selected reading passages of a few pages; and (2) produce a guided writing with a personal point of view, demonstrating level-appropriate control of grammar, word forms, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

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AEC	42	Basic 1 Grammar	This course covers helping verbs, pronouns, adjectives, count/non-count nouns, and tenses (present, present progressive and simple past).	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	42	Basic 1 Grammar	This course covers helping verbs, pronouns, adjectives, count/non-count nouns, and tenses (present, present progressive and simple past).	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	50	Basic 2 Listening/Speaking	On completing the Basic 2 Listening/Speaking course, a student will be able to follow instructions, directions, and comprehend the main ideas and supporting details of 1-3 minute announcements and conversations with controlled speech and delivery; and (2) speak informally in basic social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	50	Basic 2 Listening/Speaking	On completing the Basic 2 Listening/Speaking course, a student will be able to follow instructions, directions, and comprehend the main ideas and supporting details of 1-3 minute announcements and conversations with controlled speech and delivery; and (2) speak informally in basic social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	51	Basic 2 Reading/Writing	On completing the Basic 2 Reading/Writing course, a student will be able to (1) recognize main ideas, find supporting details, and recognize the organizational pattern in short and page-length reading passages; and (2) produce a composition, based on a model, with a personal point of view, demonstrating level-appropriate control of grammar, word form, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	51	Basic 2 Reading/Writing	On completing the Basic 2 Reading/Writing course, a student will be able to (1) recognize main ideas, find supporting details, and recognize the organizational pattern in short and page-length reading passages; and (2) produce a composition, based on a model, with a personal point of view, demonstrating level-appropriate control of grammar, word form, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	52	Basic 2 Grammar	Learn grammar for everyday writing and speaking ; present, progressive and future tenses, irregular verbs in the past tense, modal verbs, pronouns, order of adjectives, and comparisons.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	52	Basic 2 Grammar	Learn grammar for everyday writing and speaking ; present, progressive and future tenses, irregular verbs in the past tense, modal verbs, pronouns, order of adjectives, and comparisons.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	53	Basic Communication Special Topic	Learn to communicate effectively at the basic level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	53	Basic Communication Special Topic	Learn to communicate effectively at the basic level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	60	Intermediate 1 Listening/Speaking	On completing the Intermediate 1 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 1-5 minute listening passages, conversations, instructions, and directions with controlled speech and delivery; and (2) speak informally in common social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	60	Intermediate 1 Listening/Speaking	On completing the Intermediate 1 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 1-5 minute listening passages, conversations, instructions, and directions with controlled speech and delivery; and (2) speak informally in common social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	61	Intermediate 1 Reading/Writing	On completing the Intermediate 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and find supporting details in selected reading passages of a few pages; and (2) produce an organized composition, with a personal or an objective point of view, demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	61	Intermediate 1 Reading/Writing	On completing the Intermediate 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and find supporting details in selected reading passages of a few pages; and (2) produce an organized composition, with a personal or an objective point of view, demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

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AEC	62	Intermediate 1 Grammar	Improve grammar for everyday writing and conversation ; present perfect and present perfect continuous and future tenses, noun clauses, and grammar to cover frequency, duration, possibility, and necessity.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	62	Intermediate 1 Grammar	Improve grammar for everyday writing and conversation ; present perfect and present perfect continuous and future tenses, noun clauses, and grammar to cover frequency, duration, possibility, and necessity.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	70	Intermediate 2 Listening/Speaking	On completing the Intermediate 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 5-10 minute general topic listening passages with modified speech and delivery; and (2) speak formally and informally on a variety of general topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	70	Intermediate 2 Listening/Speaking	On completing the Intermediate 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 5-10 minute general topic listening passages with modified speech and delivery; and (2) speak formally and informally on a variety of general topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	71	Intermediate 2 Reading/Writing	On completing the Intermediate 2 Reading/Writing course, a student will be able to recognize the main ideas and supporting details and distinguish between fact and opinion in a reading passage of several pages; and (2) produce a composition, based on a writing task, with an objective point of view demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	71	Intermediate 2 Reading/Writing	On completing the Intermediate 2 Reading/Writing course, a student will be able to recognize the main ideas and supporting details and distinguish between fact and opinion in a reading passage of several pages; and (2) produce a composition, based on a writing task, with an objective point of view demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	72	Intermediate 2 Grammar	Focus on an overview of all the tenses. This course also covers passive voice and sequence of tenses with adverbial clauses.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	72	Intermediate 2 Grammar	Focus on an overview of all the tenses. This course also covers passive voice and sequence of tenses with adverbial clauses.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	73	Intermediate Communication Special Topic	Learn to communicate effectively at the intermediate level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	73	Intermediate Communication Special Topic	Learn to communicate effectively at the intermediate level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	80	Advanced 1 Listening/Speaking	On completing the Advanced 1 Listening/Speaking course, a student will be able comprehend the main ideas and supporting details of brief academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	80	Advanced 1 Listening/Speaking	On completing the Advanced 1 Listening/Speaking course, a student will be able comprehend the main ideas and supporting details of brief academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	81	Advanced 1 Reading/Writing	On completing the Advanced 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details and determine logical inferences in selected general reading passages of several pages; and (2) produce a composition, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	81	Advanced 1 Reading/Writing	On completing the Advanced 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details and determine logical inferences in selected general reading passages of several pages; and (2) produce a composition, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	90	Advanced 2 Listening/Speaking	On completing the Advanced 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of complex but abbreviated academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	90	Advanced 2 Listening/Speaking	On completing the Advanced 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of complex but abbreviated academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	91	Advanced 2 Reading/Writing	On completing the Advanced 2 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details, and determine logical inferences in authentic and selected academic and general reading passages of several passages; and (2) produce a well-developed essay, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	91	Advanced 2 Reading/Writing	On completing the Advanced 2 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details, and determine logical inferences in authentic and selected academic and general reading passages of several passages; and (2) produce a well-developed essay, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	92	Advanced Grammar	This course covers complex sentence structure, participial phrases, reduced adjective clauses and appositives, infinitives and gerunds, hypothetical conditionals, and the subjunctive.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	92	Advanced Grammar	This course covers complex sentence structure, participial phrases, reduced adjective clauses and appositives, infinitives and gerunds, hypothetical conditionals, and the subjunctive.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	93	Advanced Communication Special Topic	Learn to communicate effectively at the advanced level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	93	Advanced Communication Special Topic	Learn to communicate effectively at the advanced level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	94	Business English Special Topic	Learn to communicate effectively in a variety of business situations and develop English skills necessary for success in today's business world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	94	Business English Special Topic	Learn to communicate effectively in a variety of business situations and develop English skills necessary for success in today's business world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	95	American Culture Studies Special Topic	Learn about American culture and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	95	American Culture Studies Special Topic	Learn about American culture and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	96	Academic English Studies Special Topic	Learn the Academic English necessary for success at an American university or college.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	96	Academic English Studies Special Topic	Learn the Academic English necessary for success at an American university or college.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	97	TOEFL Special Topic	Improve test-taking strategies for specific areas of the iBT (Internet-Based test) TOEFL and the Institutional (paper and pencil) TOEFL. This is an elective course that meets six hours per week. This course also includes FREE Institutional TOEFL Test while this form of the TOEFL is still available.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3-6		
AEC	97	TOEFL Special Topic	Improve test-taking strategies for specific areas of the iBT (Internet-Based test) TOEFL and the Institutional (paper and pencil) TOEFL. This is an elective course that meets six hours per week. This course also includes FREE Institutional TOEFL Test while this form of the TOEFL is still available.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	X98	ESL Credit Course Special Topic	These courses are introductions to the university environment and to volunteerism in the community. A student will have opportunities to interact and to be exposed various aspects of American culture. These AECP elective courses can also be taken for 3 ASU credits which may be applied to a degree program.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X98	ESL Credit Course Special Topic	These courses are introductions to the university environment and to volunteerism in the community. A student will have opportunities to interact and to be exposed various aspects of American culture. These AECP elective courses can also be taken for 3 ASU credits which may be applied to a degree program.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X99	International Teaching Assistants Training	The ITA training Seminar is a no-fee course offered to international students who are candidates for a teaching assistantship. The seminar is a non-credit semester long course which addresses language improvement, teaching skills, and cross-cultural training.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X99	International Teaching Assistants Training	The ITA training Seminar is a no-fee course offered to international students who are candidates for a teaching assistantship. The seminar is a non-credit semester long course which addresses language improvement, teaching skills, and cross-cultural training.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
AEP	501	Foundations of Ethics I	Studies primary texts of classic ethical theories and their applications to various issues in daily life and the professions. Ethical traditions include some of these frameworks: virtue ethics and natural law ethics, consequentialism and contractualism, deontology and critical communitarianism. Pays attention to the shifting nature of the relation between ethics and religion. In the applied, activity-portion of the course, students investigate real-life ethical issues and examine them from several normative perspectives	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Students who have credit for PHI 501, or REL 581, may not enroll in AEP 501

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AEP	550	Ethical and Spiritual Issues in Pastoral Care	Recalling the ancient Socratic, biblical, and other spiritual traditions of the cura animarum (care for and cure of the soul) and joining contemporary post/secular conversations relevant to the integration of the body-mind-spirit, this course introduces basic concepts and practices of the pastoral care ethics and spirituality. Focuses on the irreducible relations among existential (ontological), therapeutic (psychosomatic), and spiritual (religious) dimensions of care. The theoretical part of the course is inter-faith in approach, holistic in scope, and specialized in content; in the applied, activity-portion of the seminar, students investigate real-life issues in care ethics and spirituality and examine them from several perspectives studied during the semester.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: AEP 501 and AEP 502 with a D or better; students who have credit for PHI 550 or REL 585, may not enroll in AEP 550
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
AES	101	Air Force Today I	Introduces U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	102	Leadership Lab	Emphasizes common Air Force customs and courtesies, drill and ceremonies, health and physical fitness through group participation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	103	Air Force Today II	Continuation of AES 101. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	104	Leadership Lab	Continuation of AES 102 with more in-depth emphasis on learning the environment of an Air Force officer.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
AES	201	The Evolution of USAF Air and Space Power I	Further preparation of the AFROTC candidate. Topics include: Air Force heritage and leaders, communication skills, ethics, leadership, quality Air Force, and values.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		

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AES	202	Leadership Lab	Application of advanced drill and ceremonies, issuing commands, knowing flag etiquette, and developing, directing, and evaluating skills to lead others.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	203	The Evolution of USAF Air and Space Power II	Continuation of AES 201. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	204	Leadership Lab	Continuation of AES 202 with emphasis on preparation for field training.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-4		
AES	301	Air Force Leadership Studies I	Study of communication skills, leadership and quality management fundamentals, leadership ethics, and professional knowledge required of an Air Force officer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	302	Leadership Lab	Advanced leadership experiences applying leadership and management principles to motivate and enhance the performance of other cadets.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	303	Air Force Leadership Studies II	Continuation of AES 301. Topics include: communication skills, ethics, leadership, professional knowledge, and quality management required of an Air Force officer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	304	Leadership Lab	Continuation of AES 302 with emphasis on planning the military activities of the cadet corps and applying advanced leadership methods.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	401	National Security Affairs	Examines advanced ethics, Air Force doctrine, national security process, and regional studies. Special topics include: civilian control of the military, military justice, and officership.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	402	Leadership Lab	Advanced leadership experience demonstrating learned skills in planning and controlling the military activities of the corps.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	403	Preparation for Active Duty II	Continuation of AES 401. Topics include: civilian control of the military, doctrine, ethics, military justice, the national security process, and officership.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.		
AES	404	Leadership Lab	Continuation of AES 402 with emphasis on preparation for transition from civilian to military life.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-7		
AES	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	N	Z1	Liberal Arts and Sciences	Department of Aerospace Studies	1-3		
AES	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Aerospace Studies	1-12		
AET	191	First-Year Seminar		Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
AET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	210	Measurements and Testing	Measurement systems, components, system response, and the characteristics of experimental data.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 112 or PHY 131 with D or better
AET	215	Aircraft Systems	Principles and design features of aircraft structures, systems, and materials.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
AET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	300	Aircraft Design I	Applied aerodynamics, standard atmosphere, speed measurement, infinite and finite wings, airplane performance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: AET 215 with D or better; MET 211, ECE 210, or MAE 212 with D or better
AET	310	Instrumentation	Measurement systems, components, system response, and the characteristics of experimental data. Methods of collecting and analyzing data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MAT 261, MAT 271 or MAT 274 with D or better; AET 210 or EET 208 with D or better
AET	312	Applied Engineering Mechanics: Dynamics	Masses; motion kinematics; dynamics of machinery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: APM 271, MAT 261 or MAT 271 with D or better; CON 221, ETC 211, ECE 210, MAE 212 or MET 211 with D or better
AET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	396	Aerospace Professional Orientation	Career focus for Aeronautical Engineering Technology students. Familiarization with the aerospace industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisite: Junior or higher academic level
AET	415	Gas Dynamics and Propulsion	Introduces compressible flow, internal and external flow, and aerothermodynamic analysis of propulsion systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 or MAE 340 OR Technology and Innovation or Fulton Engineering Graduate student

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AET	417	Aerospace Structures	Analysis and design of aircraft and aerospace structures. Shear flow. Semimonocoque structures. Effects of dynamic loading.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 313 (or ECE 313) with D or better; AET 312 (or ECE 312) with D or better; AET 300 with D or better OR Technology and Innovation or Fulton Engineering graduate student
AET	420	Experimental Aerodynamics and Wind Tunnels	Experimental applied aerodynamics related to aeronautical and mechanical design. Wind tunnel design and testing. Low speed flows.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: AET 300 with D or better; MET432 with D or better
AET	432	Applied Heat Transfer	Heat transfer by conduction, convection, and radiation. Applies heat transfer to engineering design problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: ETC 340 or MET 340 with D or better (or co-enrolled in ETC 340); may not enroll in AET 432 if credit received in AET 524
AET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Technology and Innovation BS student; Minimum cumulative GPA of 3.00; Minimum Junior standing
AET	487	Aircraft Design II	Basic aerodynamics and airplane performance analysis methods applied to practical design project.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: AET 300 with D or better; Senior academic level OR Technology and Innovation or Fulton Engineering graduate student
AET	492	Honors Directed Study		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6		
AET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
AET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Manufacturing Engineering Technology students; Minimum cumulative GPA of 2.00
AET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Manufacturing Engineering Technology students; Minimum cumulative GPA of 2.00
AET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
AET	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	524	Application of Heat Transfer	Energy conservation, steady-state and transient conduction, convection transfer, free and forced convection Reynolds analogy, blackbody and environmental radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 or MAE 340 with D or better; May not enroll in AET 524 if you have credit in AET 432
AET	525	Advanced Propulsion	Mechanics and thermodynamics of propulsion systems. Solid, liquid propellant rocket design performance. Electrical nuclear propulsion systems. Space missions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 434, AET 415 or MAE 340
AET	560	Numerical Methods in Engineering Technology	Analyzes problems in physical sciences, models physical problems, perturbation techniques, curvefitting, data analysis, numerical solutions, ordinary and partial differential equations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Technology Innovation or Fulton Engineering students; Senior or higher academic level
AET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		
AET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
AFH	202	Art of Africa, Oceania, and the Americas	History of art of Africa, Oceania, and the New World. Meets non-Western art history requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & H & G	
AFH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	300	Precolonial Africa	Surveys social, economic, political, cultural, and economic institutions and civilizations of Africa before European colonialism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	303	African and African American Art	Anthropological perspective of African and African American visual art traditions from the past to 1970.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	305	The Global History of the Trans-Atlantic Slave Trade	Origins, development, abolition, and impact of Atlantic slave trade as a global economic enterprise and great human tragedy; slavery experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	318	African and African Diaspora Women Writers	Intersection of race, class, gender, and ethnicity in black women's fiction from the United States, the Caribbean, and Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	319	Black Experience in Latin America	Examines several aspects of the experience of Africans in the Latin America diaspora; comparisons with United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	331	Studies in African American Women Writers of Pre-Harlem Renaissance	Focuses on novels, short stories, essays, speeches, and dramas that gave voices to African American woman in pre-Harlem Renaissance era. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	
AFH	335	Survey of African Literatures	Intersection of colonialism, race, class, gender, nationalism, postcoloniality, social transformation, and ethnicity in African writers' fiction and literary production.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees. Fee (hybrid/Internet).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
AFH	353	African American Literature: Beginnings through the Harlem Renaissance	Historical survey of African American literary traditions and cultural contexts from slavery through the 1930s.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	
AFH	354	African American Literature: Harlem Renaissance to the Present	Historical survey of African American literary traditions and cultural contexts from the 1920s to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
AFH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	459	Studies in African American/Caribbean Literatures	Studies in African American or Caribbean literatures according to genre, period, theory, or selected authors. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	
AFH	465	Harlem Renaissance: a Cultural History: 1877-1945	Socio-political, historical contexts and worldwide ramifications of the cultural productions (theater, music, visual arts, and literature) of the Harlem Renaissance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	492	Honors Directed Study		N	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFH	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
AFH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		

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AFH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	191	First Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
AFR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	210	Introduction to African American Studies	Examines the political, historical, and cultural origins of African American studies as an academic discipline.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	317	Genes, Race and Society	Examines history of biological and social constructions of race in western society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFR	335	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Students who have credit for TCL 335, may not enroll in AFR 335
AFR	375	Race, Gender and Sport	Interdisciplinary examination of the social concepts of race and gender and their economic impact on sports in America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
AFR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	428	Critical Race Theory	Examines ways in which race has been historically utilized, constructed, and contested in American civil society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	429	African American Studies Theory and Methods	Examines social and behavioral science theories and methodological procedures pertaining to African Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	460	Race, Gender and Media	Reading seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	490	Field Studies in the Diaspora	Introduces methods and principles of research applied to Black communities within and outside Arizona. Involves working with field officer and faculty.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
AFR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-7		
AFR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	508	Colonial Rule and the African Experience	Impact of European colonial rule on the shaping of African consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	525	Foundations of Caribbean Studies	Broad interdisciplinary understanding of the Caribbean that surveys the region's history, politics, economy, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	526	Selected Topics in Caribbean Politics	In-depth understanding of the impact of selected topics on the political economy and social infrastructure of the Caribbean.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		

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AFR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		

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AFR	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
AFR	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
AFS	200	Introduction to African and African Diaspora Studies	Introduces the study of African and African-descended peoples; theory, themes, and perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	202	Ethnic Relations in the United States	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFS	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	301	Race and Racism in Africa/African Diaspora	Construction of race, racism, and race relations in Africa/African Diaspora; practices of agency to challenge ethnicity, racism, and racial oppression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	304	Islands of Globalization: Caribbean Political Economy	Impact of globalization on the economic, political, and social condition of the islands and mainland countries of the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	310	African/African American Psychology	Historical and contemporary overview of the development of African/Black psychology and African American frame of reference.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	312	Contemporary African and African Diaspora Women	Explores recent literary, theoretical, and methodological themes concerning the study of African/African Diaspora women and the phenomena of modernization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	320	Africa: Politics, Environment, and Development	Uses African experience to understand the consequences of human environment relationships, wealth and power differentials, and individual and global citizenship.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	327	Human Rights in Africa	Comparative study of human rights focusing on colonial and post-colonial Africa from historical and contemporary perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	332	Life and Death in Ancient Egypt	Reveals ancient Egyptian life through recent research in archaeology and physical anthropology on cemeteries, tombs, and the dead themselves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisite: ASB 222
AFS	340	The Making of Modern Africa	Events and processes leading to the colonization of Africa and subsequent changes in African societies under colonial rule and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	345	The Making of the Caribbean Society	Historical socioeconomic and political factors and institutions creating the wider Caribbean from the 15th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	355	Democracy and Civil Society in Africa	Examines contending perspectives on the state and civil society and democratic struggles using sub-Saharan Africa and case study.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	360	Black Families in the Diaspora: U.S. and Caribbean	Comparative study of historical and current themes in the structure and internal dynamics of African Diaspora families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	363	African American History to 1865	The African American in American history, thought, and culture from slavery to 1865.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFS	364	African American History Since 1865	The African American in American history, thought, and culture from 1865 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C & H	
AFS	366	African Archaeology: Precolonial Urban Culture	Overview of African civilization from the last 10,000 years up to 1850 via archaeological, documentary, and oral data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	370	Family, Ethnic, and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
AFS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	415	Black Political Thought and the Limits of Liberal Democracy	Black political and social thought; conflict between liberal democratic ideals and structures of domination and exploration from African Diaspora perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	466	Peoples and Cultures of Africa	Surveys African peoples and their cultures, external contact, and changes. Meets non-Western requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	480	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		

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AFS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
AGB	420	Food Marketing	Food processing, packaging, distribution, market research, new food research and development, and social implications.	N	LEC	N	OPT	Morrison Sch of Agribusiness	Morrison School of Management and Agribusiness	3.		
AGB	420	Food Marketing	Food processing, packaging, distribution, market research, new food research and development, and social implications.	N	LEC	N	OPT	Morrison Sch of Agribusiness	Morrison School of Management and Agribusiness	3.		
AGB	100	Introduction to Agribusiness	Overview of agribusiness industries and career opportunities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	161	Computer Applications for Agribusiness Industries	Uses and integrates word processing, spreadsheets, and databases as tools for managing an agribusiness firm.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
AGB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	271	Veterinary Medicine Today	Introduces the role of the veterinarian as related to the fields of food supply and veterinary medicine.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	321	Agribusiness Marketing II	Examines the food marketing system with emphasis on the marketing institutions, arrangements, and methods for basic commodities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisites: MKT 300 with a D or better
AGB	333	Agribusiness Finance II	Introduces financial markets and institutions. Interest rate determination, money and banking, equity markets, farm credit system, vendor financing.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisites: FIN 300 with a D or better
AGB	340	Food Processing	Introduces processed food quality assurance, statistical sampling, and inspection procedures.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	360	Agribusiness Statistics	Statistical methods with applications in agribusiness and resource management.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
AGB	364	Agribusiness Technologies I	Biotechnology and other methods used in the production, processing, and distribution of food.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	365	Agribusiness Technologies II	Examines methods of managing diverse crop and livestock enterprises with emphasis on growth, development, marketing, and loss prevention.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	372	Introduction to Veterinary Practice Management Module I	Initial offering of a three-module program that is an overview of the operation of a veterinary practice.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	373	Veterinary Practice Management Module II: Human Resources	Intermediate course of a three-module program covering human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	374	Veterinary Practice Management Module III: Finance and Marketing	Final course of a three-module program covering financial and marketing issues faced by veterinary practice managers.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	410	Agribusiness Management II	Principles of human resource management in agribusiness firms.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisites: MGT 300 with a D or better
AGB	411	Agricultural Cooperatives	Organization, operation, and management of agricultural cooperatives.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	414	Agribusiness Analysis	Analysis of agribusiness firm decisions in the ecological, economic, social, and political environments. Special emphasis on ethical issues surrounding food production and consumption.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	L	Pre-requisite: Business student; minimum 87 hours; FIN 300, MGT 300 and MKT 300 with C or better; SCM 300 with C or better required for Bus Admin, Real Estate and W.P. Carey students; May not register if earned grade of C or better in BUA 440 or 441
AGB	422	Consumer Behavior	Applies behavioral concepts in analyzing consumer food purchases and their implications for marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisite: MKT 300

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AGB	424	Agribusiness Sales	Principles and techniques of selling and merchandising in the agricultural and food industries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	425	Agricultural Marketing Channels	Operational stages of agricultural commodities in normal distribution systems and implementation of marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	429	Marketing Research	Examines the marketing research process and its role in facilitating agribusiness decisions. Emphasizes problem identification, survey design, and data analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	431	Intermediate Agribusiness Financial Management	Comprehensive treatment of topics in financial management of agribusiness: capital structure, dividend policy, asset valuation, mergers and acquisitions, risk management.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	433	Intermediate Agribusiness Financial Markets	Role and function of agribusiness in U.S. financial system. Topics include rural banking, farm credit system, monetary policy, and federal reserve.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	434	Agricultural Risk Management and Insurance	Strategies to manage agricultural price and business risk: derivatives, insurance, self-insurance, and public policy.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	435	Agricultural Commodities	Trading on futures markets. Emphasis on the hedging practices with grains and meats. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	436	Entrepreneurship and Financial Management of E-Commerce	Uses lectures, case studies, and business plans to highlight challenges of starting and running a small business.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	440	Food Safety	Control, prevention, and prediction of microbial and chemical food-borne diseases.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	442	Food and Industrial Microbiology	Food- and industrial-related microorganisms; deterioration and preservation of industrial commodities. Lecture, lab.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	4.		
AGB	445	Food Retailing	Food retail management. Discusses trends, problems, and functions of food retail managers within various retail institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	450	International Agricultural Development	Transition of developing countries from subsistence to modern agriculture. Emphasis placed on implications for U.S. agribusiness working abroad.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	G	
AGB	451	Management Science	Focuses on the construction, solution, and interpretation of quantitative models used for management decision making in agribusiness firms.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	CS	
AGB	452	International Agricultural Policy	Use of international trade theory to analyze the effects of government policies, trade agreements, and exchange rates on agribusiness.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	454	International Trade	International practices in trading of agribusiness, technology, and resource products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	455	Resource Management	Explores differences between societal and individual valuations of natural resources; considers public policy versus market-based solutions to environmental concerns.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.	SB	
AGB	460	Agribusiness Management Systems	Development and use of decision support systems for agribusiness management and marketing.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		Pre-requisites: 56 hours or more; FIN 300; MGT 300; MKT 300
AGB	465	Organic Farming Technologies	Organic farming methods, including certification, soil fertility, planting, integrated pest management, irrigation, cover crops, rotations, and marketing farm products.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	470	Comparative Nutrition	Effects of nutrition on animal systems and metabolic functions.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	481	Applied Microeconomics	Emphasizes application of the theory of the firm, theory of exchange, and consumer theory.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-6		
AGB	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-6	L	Pre-requisites: Must be an Honors student
AGB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-7		
AGB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-3		

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AGB	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	511	Advanced Agribusiness Management	Analysis of organization behavior, change, and resource requirements within agribusiness systems.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	513	Advanced Cooperatives	Advanced study of cooperatives and other nongovernmental organizations (NGO) focusing on management and proposal preparation for international agencies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	514	Advanced Agribusiness Analysis	Vertical integration and differentiation in food and agricultural industries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	528	Advanced Agribusiness Marketing	Theory and analysis of marketing farm commodities, risks, and the effect of future trading on cash prices.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	529	Advanced Agribusiness Marketing Channels	Analyzes agribusiness market channel systems. Formulation of marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	532	Advanced Agribusiness Finance	Financial management of agribusiness firms; agribusiness financial analysis, investment analysis, agricultural risk management, and introduction to agricultural financial intermediaries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	535	Commodity Analysis	Analysis of commodity markets.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	540	Advanced Food Science	Chemical and physical nature of processed foods. Emphasizes food product development.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	550	International Agricultural Development	Transition of developing countries from subsistence to modern agriculture. Emphasis placed on implications for U.S. agribusiness working abroad.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	552	International Agricultural Policy	Uses international trade theory to analyze the effects of government policies, trade agreements, and exchange rates on agribusiness.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	554	Advanced International Trade	Advanced international practices in trading of agribusiness, technology, and resource products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	560	Advanced Agribusiness Management Systems	Development and use of decision support systems for agribusiness management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	561	Applied Econometrics	Uses model building, hypothesis testing, and empirical analysis in solving agribusiness problems.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	570	Managerial Economics for Agribusiness	Concepts in micro- and macroeconomics applied to agribusiness management environments: price formation, market structure, information economics, fiscal and monetary policy.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	581	Advanced Agribusiness Policy	Policy-making history, structure, and process.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	589	Agribusiness Capstone	Strategic management of organizations focusing on developing value-creating strategies in dynamic environments.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		

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AGB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
AGB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
AGB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
AGB	701	Advanced Agribusiness I	Advanced topics include demand analysis, empirical industrial organization, welfare economics, agricultural policy, international trade, and consumer behavior.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	702	Advanced Agribusiness II	Topics include macromarketing, marketing research, futures and options markets, derivatives, risk management, financial innovation, and forecasting.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	703	Agribusiness Research Methods	Survey course in current research methods in economics, marketing, finance, and management as applied to agribusiness topics. May be repeated for credit.	N	SEM	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
AGB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-15		
AGB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-15		
AIS	180	Introduction to American Indian Studies	Introduces the study of American Indian justice issues from an interdisciplinary perspective. Primary topics include sovereignty, law, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	
AIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	280	American Indian Sovereignty and the Courts	Examines the sovereign status of American Indians and legal relationships between the tribes and the U.S. government.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	H & C	
AIS	285	Federal Indian Policy	Examines the sovereign status of American Indians and legal relationships between the tribes and the U.S. government.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	H & C	
AIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	370	American Indian Languages and Cultures	Emphasizes understanding of Indian language families and the relationship of oral traditions to culture.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	Pre-requisite: AIS 180 with C or better
AIS	380	Contemporary Issues of American Indian Nations	Surveys legal, socioeconomic, political, and educational state of contemporary reservation and urban Indians.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	
AIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	420	American Indian Studies Research Methods	Surveys diverse research methods, including statistical, historical, interpretative, and narrative approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	L	Pre-requisite: AIS 180 with C or better
AIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-12		
AIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-7		
AIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-3		

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AIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-12		
AIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
ALA	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H & G	
ALA	102	Architecture, Landscape Architecture, and Society	Examines interrelationship between society and the landscape with emphasis on human involvement in shaping the landscape.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	G	
ALA	121	Design Fundamentals I	Development of visual literacy. Introduces drawing and graphic representation as methods of seeing and problem solving.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Architecture or Landscape Architecture student
ALA	122	Design Fundamentals II	Exercises in basic design, stressing creative problem-solving methods, principles of composition, and aesthetic evaluation. Development of vocabulary for environmental design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Architecture or Landscape Architecture student; ALA 121 with a C or better; Co-requisite: ALA 124
ALA	124	Design Fundamentals II Lecture	Theory and applications of basic design principles, history and theory of how architecture and landscape architecture design is impacted by basic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Architecture or Landscape Architecture student; Co-requisite: ALA 122
ALA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ALA	200	Introduction to Architecture	Surveys issues and polemics affecting current architectural theory and practice.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & G	
ALA	225	Design Fundamentals III	Applies design fundamentals with an emphasis on architectural and landscape architectural issues.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Architecture or Landscape Architecture student; ALA 122 with a C or better; Passed milestone; Co-requisite: ALA 227 and ALA 235;
ALA	227	Design Fundamentals III Lecture	History and theory of design fundamentals with an emphasis on architectural and landscape architectural design issues.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Architecture or Landscape Architecture student; Co-requisite: ALA 225 and ALA 235
ALA	235	Introduction to Computer Modeling	Fundamentals of computer operation, geographic information systems, geometric modeling of 3-D forms and rendering of light, mathematical modeling of processes using spreadsheets.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	CS	Pre-requisites: Architecture or Landscape Architecture student; Co-requisites: ALA 225 and ALA 227
ALA	240	Building Construction	Fundamentals of building construction through digital simulation of case study buildings. Construction systems, detailing, and conventions by building 3-dimensional digital model.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Pre-Architectural Studies or Pre-Landscape Architecture student; Co-requisites: ALA 222 and ALA 224
ALA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ALD	101	Introduction to Aging Issues	Introduces students to general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in midlife and beyond, living options, caregiving, and retirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	101	Introduction to Aging Issues	Introduces students to general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in midlife and beyond, living options, caregiving, and retirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-3		
ALD	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	202	Field Placement I	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	202	Field Placement I	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	203	Field Placement II	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202
ALD	203	Field Placement II	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202
ALD	204	Field Placement III	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202; ALD 203

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ALD	204	Field Placement III	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202; ALD 203
ALD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	301	Research Methods in Aging	Examines social science approaches to the study of aging. Includes particular methodological issues that must be considered when studying older adults.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	303	Aging, Lifespan Development, and the Family	Explores aging and its effects on family members, as well as how families with aging members are affected by societal issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	303	Aging, Lifespan Development, and the Family	Explores aging and its effects on family members, as well as how families with aging members are affected by societal issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	404	Sexuality in Mid-Life and Beyond	Examines issues of sexuality in the middle and older adult years. Includes physical changes, myths and stereotypes, gender issues, and relationships issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	404	Sexuality in Mid-Life and Beyond	Examines issues of sexuality in the middle and older adult years. Includes physical changes, myths and stereotypes, gender issues, and relationships issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	420	Health Issues and Older Adults	Examines biological, social, and behavioral aspects of health in the later years. Considers the organization and delivery of care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	420	Health Issues and Older Adults	Examines biological, social, and behavioral aspects of health in the later years. Considers the organization and delivery of care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	431	Caregiving for Older Adults	Examines theory and practice of caregiving for the senior population.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better. Students who have credit for ALD 531, may not enroll in ALD 431
ALD	431	Caregiving for Older Adults	Examines theory and practice of caregiving for the senior population.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better. Students who have credit for ALD 531, may not enroll in ALD 431
ALD	440	Social Policy and Aging	Examines the historical, socio-political, and economic issues that are specific to older Americans. Includes federal, state, and local policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better. Students who have credit for ALD 540, may not enroll in ALD 440
ALD	440	Social Policy and Aging	Examines the historical, socio-political, and economic issues that are specific to older Americans. Includes federal, state, and local policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: ALD 101 (or GRN 400) with C or better. Students who have credit for ALD 540, may not enroll in ALD 440
ALD	460	Alzheimer's and Related Dementias	Familiarization with Alzheimer's disease and related dementias from a caregiver's perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	460	Alzheimer's and Related Dementias	Familiarization with Alzheimer's disease and related dementias from a caregiver's perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	472	Women, Aging, and the Life Course	Focuses on issues affecting women as they age, including media messages, cultural differences, economic issues, and relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	472	Women, Aging, and the Life Course	Focuses on issues affecting women as they age, including media messages, cultural differences, economic issues, and relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-6	L	Pre-requisites: Must be an Honors student
ALD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-7		
ALD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-3		
ALD	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ALD	505	Perspectives on Aging and the Life Course	Overview of general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in mid-life and beyond, living options, caregiving, and retirement. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	505	Perspectives on Aging and the Life Course	Overview of general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in mid-life and beyond, living options, caregiving, and retirement. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	520	Health Aspects of Aging Adults	Examines biological, social, and behavioral aspects of health in the later years, and the organization and delivery of care. Includes an emphasis on wellness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	520	Health Aspects of Aging Adults	Examines biological, social, and behavioral aspects of health in the later years, and the organization and delivery of care. Includes an emphasis on wellness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	525	Mental Health in Midlife and Beyond	Focuses on the psychological, emotional, and cognitive changes as individuals age. Includes assessment and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	525	Mental Health in Midlife and Beyond	Focuses on the psychological, emotional, and cognitive changes as individuals age. Includes assessment and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	531	Caregiving Issues for Families and Professionals	Examines the issues of caregiving by family members, in-home aids, and professionals in care facilities. Focuses on issues related to providing care to older adults in a variety of settings. Includes social policy toward caregiving, caregiver stress and reward, the role of social workers, and cultural concerns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre/Co-requisites: ALD 505 with C or better if completed; Credit is allowed for only ALD 431, 531 or FAS 421
ALD	531	Caregiving Issues for Families and Professionals	Examines the issues of caregiving by family members, in-home aids, and professionals in care facilities. Focuses on issues related to providing care to older adults in a variety of settings. Includes social policy toward caregiving, caregiver stress and reward, the role of social workers, and cultural concerns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	535	Physical Activity and Aging	Examines and discusses the theoretical and applied health-related research on physical activity and aging.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	540	Public Policy Issues and Aging	Examines in detail the historical, socio-political, and economic issues that are specific to older Americans at the federal, state, and local levels. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	540	Public Policy Issues and Aging	Examines in detail the historical, socio-political, and economic issues that are specific to older Americans at the federal, state, and local levels. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	545	Elder Abuse and Neglect	Provides a comprehensive review of crimes against older adults. Includes all types of abuse and neglect, as well as prevention, intervention, and public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	545	Elder Abuse and Neglect	Provides a comprehensive review of crimes against older adults. Includes all types of abuse and neglect, as well as prevention, intervention, and public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	560	Dementia	Thorough examination of dementia and dementia syndromes, including Alzheimer's disease. Includes the complexity and diversity of behaviors that define dementia, and implications for planning interventions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	560	Dementia	Thorough examination of dementia and dementia syndromes, including Alzheimer's disease. Includes the complexity and diversity of behaviors that define dementia, and implications for planning interventions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ALD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	360	Renewable Energy Technologies: Fundamentals and Integration	Technical fundamentals, economic, and social aspects of renewable energy technologies with emphasis on solar cells, hydrogen economy, and fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	401	Hydrogen Generation, Storage, and Distribution	Overview of primary technologies, economic aspects, and social policy issues related to development of hydrogen systems and hydrogen economy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	405	Power Conditioning	Fundamentals of power electronics; DC-DC converters and DC-AC inverters; battery charge controllers. Lab experience.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for ALT 505, may not enroll in ALT 405
ALT	410	Solar Cells and Module	Basic device physics and engineering of solar cells. Lab experience on fabrication, characterization, and testing of solar cells and module.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	420	Electrochemical Energy Technologies	Thermodynamic and electrochemical principles of fuel cells. Hands-on experience on fabrication and testing of fuel cells; problem solving skills.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	435	Applied Photovoltaics	Overview of solar radiation, operating principles of photovoltaics, qualitative analysis on influencing parameters. market trends, basics of PV systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Students who have credit for ALT 535, may not enroll in ALT 435
ALT	445	Automotive and Stationary Fuel Cell Systems	Practical overview of fuel cell systems for stationary, residential, and transportation applications based on load and duty cycle requirement of specific application.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
ALT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	501	Advanced Renewable Energy: Global Hydrogen Economy	Global, comprehensive evaluation of all renewable energy sources with focus on solar cells, hydrogen, and fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	502	Batteries for Portable Electronics	Theoretical and practical overview of primary, secondary, and lithium batteries. Key performance characteristics, construction materials, typical applications, recycling, and disposal.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	503	Fuel Cells for Portable Electronics	Overview of electrochemistry, portable electronics industry, principles of fuel cells, and prospects for micro fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		

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ALT	505	Power Conditioning	Fundamentals of power electronics, DC-DC converters and DC-AC inverters, battery charge controllers.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Credit is allowed for only ALT 405 or 505
ALT	506	Fuel Cell Integration and Packaging	Practical overview of integration and packaging of fuel cell system, which comprises a fuel processor module, a fuel cell module.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	507	Evaluations of Photovoltaic and Fuel Cell Systems	Field testing, data collection, and evaluation of real-world photovoltaic and fuel cell systems available on campus and data analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	515	Alternative Energy Reliability and Standards	Alternative energy systems and their reliability issues, accelerated life and safety testing, standards and codes, regulatory requirements.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	535	Applied Photovoltaics	Term projects, overview of solar radiation, operating principles, qualitative analysis on influencing parameters, market trends, basics of PV systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students with credit in ALT 435, may not enroll in ALT 535
ALT	545	Automotive and Stationary Fuel Cell Systems	Practical overview of fuel cell systems for stationary, residential, and transportation applications based on load and duty cycle requirement of specific applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AME	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-6		
AME	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-6	L	Pre-requisites: Must be an Honors student
AME	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-7		
AME	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-3		
AME	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	590	Reading And Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AME	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-15		
AML	100	Introduction to Applied Mathematics for the Life and Social Sciences	Introduces quantitative techniques as applied to problems in the life and social sciences. Includes challenges like understanding the complexities of the human genome or the implications of globalization for infectious disease, human health, and economic stability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
AML	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students. Must have taken 25 or fewer semester hours. Consulting an academic advisor before enrolling is recommended.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
AML	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	406	Directed Reading and Research in Applied Mathematics for the Life and Social Sciences	Collaborative, practice-oriented course where students produce individual or team-initiated research project reports on pertinent topics in the life and social sciences. Students select topics, design, identify and formulate effective research ideas, and then translate them into clear and effective research plans.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Completed at least two from the following: MAT 270, 271, 272; AND STP 226 (or 231 or 420)
AML	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
AML	492	Honors Directed Study		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	493	Honors Thesis		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	497	Honors Colloquium		Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
AML	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
AML	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AML	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	610	Topics in Applied Mathematics for the Life and Social Sciences	Introductory course in applied mathematics for the life and social sciences, combined with the first semester of a two-semester course in mathematical biology. Provides a solid introduction to the modeling of biological and social processes as well as to some of the mathematical approaches involved in their analysis and simulation.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
AML	611	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	612	Applied Mathematics for the Life and Social Sciences Modeling Seminar	Presents and applies mathematical modeling principles and techniques for representing the structure and operation of complex life and social systems and processes. Helps students identify potential problems in the life and social sciences and the corresponding mathematical and statistical methods that can be used for their study.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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AML	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AMS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
AMS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	301	Introduction to American Studies	Introduces the interdisciplinary study of American culture, emphasizing critical reading and writing skills.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
AMS	310	History of American Systems to 1865	First of a two-part survey of political, legal, and economic institutions, placed in the context of the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	311	History of American Systems Since 1865	Second in a two-part survey of political, legal, and economic institutions, placed in the context of a dynamic industrialist capitalist society, from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	314	Military Studies	Topics in the history of the American military.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	316	American Religious Systems	Topics in American religion; may include Hispanic missions of the Southwest. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	320	American Cultural History I	First of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
AMS	321	American Cultural History II	Second of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	322	Studies in American Literature	Topics in American literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	323	Studies in American Art and Architecture	Topics in the visual arts and material culture. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	326	Popular Culture	Topics in American popular culture, including theories of popular culture; the history and analysis of mass media, including television, film, and the music industry; and vernacular art and the folk tradition.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	327	Regional Cultures	Examines the concept of regionalism and regional cultures in America with a special emphasis on the Southwest/Borderlands.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	330	Introduction to American Lives	Examines American society through the study of autobiography and ethnography.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
AMS	332	Studies in Race and Ethnicity	Topics relating to issues of race and ethnicity in American life. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	334	The American Class System	Studies in social classes and their function within American society. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	335	American Biography	Topics in biographies of individuals, comparative biographies, the art of biography, and the function of autobiography.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	342	Writing about American Culture	Teaches methods of writing cultural criticism, emphasizing the essay form.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	344	Creative Writing	Emphasizes the study and practice of creative nonfiction. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	345	Reporting	Fundamentals of news gathering, interviewing, and in-depth reporting.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	346	Editing	Theory and practice of editing.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

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AMS	351	Technical Writing	Computer-based instruction in writing documents for online, oral, and print formats, focusing on audience-centered rhetoric.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	412	Studies in American Politics & Law	Topics in American political and legal systems, including social movements in the United States and women and the law. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	414	Military Studies	Topics in the history of the American military. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	417	Religious Traditions of the American Southwest	Examines the sacred traditions that have evolved within the North American Southwest context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	422	Studies in American Literature	Topics in American literature, including contemporary American comic fiction, literature of the American South, literature of American wars, Hispanic chronicles of the Southwest, literature of la Chicana, and American rhetoric. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	428	Chicano Cultures in the Southwest	Examines and explores Chicana and Chicano culture as place and sentiment. The physical place and space and the sentiment related to Chicanas and Chicanos.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
AMS	429	Interdisciplinary Topics	Senior-level seminar that examines issues relevant to two or more American cultures' fields. Topics may include Southwest/border Hispanic folklore, Southwestern corridors, American art and the city, and the West of the imagination. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	431	Gender Studies	Topics relating to issues of gender in American life. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	432	Studies in Race and Ethnicity	Topics relating to issues of race and ethnicity in American life. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	490	Writing Certificate Portfolio	Preparing a portfolio demonstrating advanced writing skills. Limited to and required of students in the Writing Certificate Program.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		
AMS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
AMS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
AMS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		Pre-requisites: ENG 101 or 105 with C or better; AMS 301 with C or better
AMS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMT	100	Flight Operations and Safety I	Supervised private pilot flight training and flight safety briefings and recurrent aviation subjects appropriate for private pilots. Requires continuous enrollment until completion of FAA Private Pilot Certificate. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	2.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND must have C or greater in AMT 182 and AMT 220 OR Corequisite: AMT220 and AMT182
AMT	101	Introduction to Aeronautical Management Technology	Facilitates entry into aeronautical management technology programs. Emphasizes General Catalog; major and concentration requirements, registration, careers, and Polytechnic campus resources. Introduces various learning styles and strategies that assist students in becoming successful learners. Emphasizes time management techniques and academic integrity.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AMT	182	Private Pilot Ground School	Ground school preparation for Private Pilot Certificate. Aerodynamics, navigation, performance, and regulations.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
AMT	200	Flight Operations and Safety II	Supervised commercial instrument flight training, safety briefings, and recurrent aviation subjects as appropriate for commercial and instrument pilots. Requires continuous enrollment until completion of FAA Commercial Pilot Certificate with Instrument Rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	201	Air Traffic Control	Ground and air operations; weather services communications and routing; flight plans, IFR operations, departures and arrivals; and airport conditions and emergencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Aero Mngt Tech (Prof Flight) OR Aero Mgmt Tech (AWS Mgmt) OR Air Traffic Management student
AMT	214	Commercial/Instrument Ground School I	Ground school leading to FAA Instrument Pilot Rating/Commercial Pilot Certificate (part 1 of 2). 10 hours ground trainer included.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Aero Mngt Tech (Prof Flight) student; AMT182, AMT220 and AMT101 with C or better
AMT	220	Aviation Meteorology	Evaluation, analysis, and interpretation of atmospheric phenomena. Low- and high-altitude weather from the pilot's viewpoint.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	280	Aerospace Structures, Materials and Systems	Basic aerodynamics, incompressible/compressible airflow, wind tunnel testing, wing theory; analysis of aircraft structures; properties and applications of materials, and aircraft systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	4.		Prerequisite: Must have earned a D or better in PHY 111, and PHY 113
AMT	287	Aircraft Powerplants	Theory and performance analysis of gas turbine and reciprocating aircraft engines. Engine accessories, systems, and environmental control.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	4.		Prerequisite: Must have earned D or greater or currently enrolled in PHY 111 or PHY 121 OR Corequisite: PHY111 or PHY121
AMT	300	Flight Operations and Safety III	Supervised instructor flight training, safety briefings, and appropriate recurrent aviation subjects. Requires continuous enrollment until completion of FAA Flight Instructor Certificate with Instrument Instructor Rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	308	Air Transportation	Studies the historical and international development of air transportation and its social, political, and economic impact upon global interrelationships.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	Pre-requisite: Total earned hours must be greater than or equal to 50
AMT	322	Commercial/Instrument Ground School II	Ground school leading to FAA Instrument Pilot Rating/Commercial Pilot Certificate (part 2 of 2). 10 hours ground trainer included.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater or currently enrolled in AMT100, AMT182 and AMT214
AMT	350	Aircraft Design and Logistics Management	Fundamental aircraft design principles, including performance factors associated with mission profiles and the identification of basic logistical support requirements. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a C or greater in AMT280 and AMT287 or be currently enrolled OR Corequisites: AMT287
AMT	370	Air Freight Operations	Air freight operations in National Aviation System; ramp operations, loading, weight and balance, and administration of airside and groundside operations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	382	Air Navigation	Theory and application of modern advanced navigation and flight instrument systems. Introduces crew resource management in multiplace cockpits.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater in AMT200 or AMT322 or be currently enrolled
AMT	385	Flight Instructor Ground School	Ground school in preparation for the FAA Flight Instructor Certificate.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	387	Multiengine Pilot Ground School	Ground school preparation for the FAA Multiengine Rating.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Prerequisite: Must be a Technology Science BS student AND have a C or greater in AMT200 or be currently enrolled OR Corequisite: AMT200
AMT	391	Multiengine Instructor Ground School	Ground school preparation for the FAA Multiengine Flight Instructor Rating. Integrated lecture/lab.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	2.		Pre-requisite: Technology Science BS student
AMT	392	Flight Instructor Instrument Ground School	Ground school preparation for the FAA Instrument Flight Instructor Rating.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must be Technology Science BS student AND earned C or greater or currently enrolled in AMT 200 and AMT 385
AMT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
AMT	396	Aviation Professional	Career focus for management and flight students, including internships, writing, interviews, and employment search in aviation industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Pre-requisite: Technology Science BS or BAS student; Minimum 50 hours
AMT	400	Flight Operations and Safety IV	Multiengine and crew training, safety briefings, and appropriate recurrent aviation subjects. Requires continuous enrollment until completion of multiengine rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	401	Multiengine Instructor Rating	Normal and emergency flight operations. Instruction techniques and procedures for light multiengine land, airplane. CFIAME Rating required for course completion.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		
AMT	408	National Aviation Policy	Examines aviation and airspace policies and policy process, including agencies involved in formulation, implementation, and evaluation of aviation policy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must have a C or greater in AMT 308 or be currently enrolled
AMT	410	Aviation Safety and Human Factors	Aviation accident prevention, human factors, life support, fire prevention, accident investigation, and crash survivability. Development and analysis of aviation safety programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Total earned hours must be greater than or equal to 50
AMT	412	Air Transportation Research	Surveys practical research methodology in use in the air transportation industry. Topics include planning and design considerations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AMT	442	Aviation Law/Regulations	Aviation within context of U.S. Common Law system. Public law, administrative rule making, sovereignty, enforcement, and case law analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Total earned hours must be greater than or equal to 50
AMT	444	Airport Management and Planning	Orientation to administration and management of modern public airports, including overview of planning, funding, and development of airport facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Minimum Junior standing
AMT	482	Airline Instrument Procedures	Advanced instrument flight using airline instrument procedures and airline crew and cockpit resource management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater in AMT200 or 322 or currently enrolled AND earned a C or greater in AMT 382 or be currently enrolled
AMT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
AMT	486	Regional Jet Aircraft Systems	Regional jet airline aircraft systems and flight procedures. Includes theoretical education for regional jet commercial passenger aircraft.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must be Technology Science BS student AND earned a C or greater in AMT300 and AMT382 or be currently enrolled AND must have a C or greater in AMT 482 or be currently enrolled or Corequisite: AMT482
AMT	488	Regional Jet Aircraft Systems II	Regional jet systems, with emphasis on air navigation systems, including Flight Management System (FMS), Selective Calling (SELCAL), and flight profiles.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	489	Airline Administration	Administrative organizations, economics of airline administration, operational structure, and relationship with federal government agencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Academic level must equal Junior or greater AND must have a C or greater in AMT 308 or be currently enrolled
AMT	490	Regional Jet Operations Capstone	Regional jet aircraft operations and flight procedures. Includes theoretical education for RJ aircraft, FTD and full-motion simulator time.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND must have a C or greater in AMT400 and AMT482 or currently enrolled AND AMT300 or AMT486 or be currently enrolled
AMT	491	Aviation Management Capstone	Integrated group project with industry partner to address current problems in either air carrier or airport management focus area.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Academic Level greater than or equal to Senior
AMT	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-6	L	Pre-requisites: Must be an Honors student
AMT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Prerequisite: University Cumulative GPA is greater than or equal to 2.25
AMT	496	Airline Aircraft Systems Capstone	Commercial airline aircraft systems and flight procedures. Includes theoretical education for large, commercial passenger aircraft.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		
AMT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		
AMT	520	Airline Pricing and Yield Management	Airline economics at the operating level; historical and current operational strategies; demand, traffic, price, yield, revenues, and costs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	521	Air Transportation Regulation	Reviews evolutionary history of government regulations. Explores alternatives for economic, safety, social, and administrative regulatory reform in air transportation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	522	Aviation Law	Examines the U.S. legal system with a focus on the aviation perspective, administrative agencies, FAA enforcement, and case law.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	523	Intermodal Transportation Management	Systems theory applied to intermodal transportation networks. Surveys air and ground transportation infrastructure, institutional frameworks, and intermediaries promoting connections between modes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	524	Airport Management and Operations	Overview of planning, funding, and development of airport facilities; legal and ethical considerations associated with airport management operations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	525	Airport Planning and Design	Completion of various phases of airport master planning process. Provides guidance for logical and timely development of airports. Project work groups assigned.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	526	Aviation Labor Relations	Investigates labor-management relations in the aviation industry, including laws, unionism, collective bargaining, public sector relationships, grievance procedures, and conflict.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	527	Airline Management Strategies	Since deregulation, airlines have undergone profound changes through mergers, consolidation, and acquisition. In-depth look at airline management strategies for the 21st century.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	528	International Aviation	Major issues of international aviation, historical review of institutional framework. Bilateral route agreements, freedom versus sovereignty, current legal and political arrangements.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater

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AMT	529	Fixed-Base Operations Management	Examines FBO role in the national aviation system. Organization of flight line operations, aircraft maintenance, and administration for multiple aircraft types.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	532	Managing Diversity in Aviation	Examines group identity and cognitive styles, cross-cultural issues, language and diversity, and effects of aviation culture on management of diversity.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	541	Aviation Physiology	Surveys human physiology and human performance principles related to modern aircraft and aircraft systems operating in multiple environments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	542	Human Factors in Automation	Examines human factors issues associated with automation. Includes impact of automation design, workload, stress, and system complexity on human operators.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	545	Human Factors in Aviation	Overview of human role in aviation. Issues, problems of unsafe acts and attitudes in human behavior. Human engineering capabilities and limitations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	546	Crew Resource Management/Line-Oriented Flight Training	Evaluates in-depth, multicrew coordination issues for commercial aviation pilots. Stresses importance of critical thinking, decision making, integrated resource utilization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	549	Applied Human Factors Research	Aviation human factors research principles applied and tested in operational settings. Group projects assigned in conjunction with industry partners.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
ANP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ANP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	475	Computer Programming in Architecture	Computer programming for architectural problems and applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ANP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

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ANP	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ANP	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
ANP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ANP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ANP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design (Energy Perform/Bldgs) MS, Building Design (Facilities Dev/Mgt) MS or Building Design (Knowledge/Compng) MS student
ANP	530	Computer Graphics in Architecture	Fundamentals of computer graphics programming in architecture, including graphics hardware, device-independent packages, 2- and 3-D transformations, and data structures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be MS Building Design Knowledge and Computing student
ANP	561	Architectural Information Processing Systems	Applies information processing systems to architectural problems. Analyzes computing tools with respect to assumptions and theories.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bld Design (Knowledge/Compng) MS student
ANP	563	Methods in Architectural Design Computation	Concepts and models for research in computer-aided architectural design with an emphasis on computational methods and a system framework.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be Bld Design (Knowledge/Compng) MS student
ANP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design (Knowledge/Compng) MS student
ANP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design (Knowledge/Compng) MS student
ANP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	DIS	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
ANP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ANP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design Knowledge and Computing MS student; ANP 592 with a grade of Y
ANP	681	Project Development	Defines and elaborates on major ideas for implementation in ADE 622 in relation to contemporary theory and practice.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student
ANP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design Knowledge and Computing MS student
APA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisite: Freshman status
APA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	200	Introduction to Asian Pacific American Studies	Examines historical and contemporary issues facing Asian Americans and Pacific Islanders in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C	
APA	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
APA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	310	Asian Pacific American Arts and Cultures	Explores Asian Pacific American cultural expression in art, literature, film, theatre, dance, and music.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
APA	315	Asian Pacific American Literature	Explores the literary history, critical reception, and major theories in Asian Pacific American poetry, fiction, and prose.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
APA	330	Asian Pacific American Genders and Sexualities	Explores gender and sexuality issues as they relate to Asian Pacific American experiences, including interracial relationships, stereotypes, feminism, queer theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
APA	340	Asian Pacific Americans and Media	Analyzes social construction of Asian Pacific American media images and resistance to those images in various historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
APA	345	Asian Pacific Americans and Film	Examines representations of Asian Pacific Americans in narrative, popular, experimental, and documentary film.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C & H	
APA	360	Asian Pacific American Experience	Historical and contemporary experiences of Asian Pacific American racial/ethnic groups in the United States.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C	
APA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	450	Asian Pacific American Contemporary Issues	Focus on issues shaping Asian Pacific American communities, including immigration, politics, education, health, family, gender, youth, interracial relations, and other contemporary topics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
APA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
APA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
APA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
APA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
APH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
APH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	300	World Architecture I/Western Cultures	Historical and contemporary built environments of Western civilizations: Mediterranean, Europe, and the Americas as manifestations of cultural history and responses to environmental determinants.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2-3	HU & H & G	Pre-requisite: May not be Pre-Architectural Studies or Architectural Studies BSD student
APH	305	Contemporary Architecture	Europe and America from the foundations of the modern movement to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	Pre-requisites: Non-majors only (non-architecture students)
APH	313	History of Architecture I	Surveys the monuments, buildings, and cities of Europe and Africa from the earliest human settlements to the present day.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & G & H	Pre-requisite: Juniors and Seniors only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
APH	314	History of Architecture II	Surveys the monuments, buildings, and cities of Asia and the Americas from the earliest human settlements to the present day.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & G & H	Pre-requisites: APH 313 with a C or better
APH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	411	History of Landscape Architecture	Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	
APH	414	History of the City	The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & H	
APH	421	First Concepts: What is... The Writing, Philosophy, and Culture of Architecture	Examines the major writings and concepts that surround the history of architecture. Focuses on (but not exclusively) work in the 20th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	L or HU	Pre-requisites: Architecture student; APH 313 and APH 314 with C or better
APH	441	Ancient Arch	Architecture of the ancient Mediterranean world with selective emphasis on major historical complexes and monumental sites.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
APH	446	20th-Century Architecture I	Architecture in Europe and America from the foundations of the modern movement to the culmination of the international style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
APH	447	20th-Century Architecture II	Developments in architecture since the international style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
APH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
APH	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
APH	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
APH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
APH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
APH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
APH	505	Foundation Theory Seminar	Foundation of conceptual architectural inquiry, stressing the reciprocal and interdependent relationship between design and theory.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student; Co-requisites: ADE 522; ATE 556
APH	509	Foundation Seminar	Historical, technical, theoretical, environmental, and professional issues in architecture.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture; Co-requisite: ADE 510
APH	511	Energy Environment Theory	Solar and other energy sources in designed and natural environments; architectural, urban, and regional implications of strategies using other renewable resources.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Master of Architecture, Master of Urban Design or Building Design MS student
APH	515	Current Issues and Topics	Critical examination of current architectural issues, topics, and discourse.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: APH 505 with a C or better; Co-requisite: ADE 621
APH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	581	Contemporary Urban Design	Explores contemporary city and urban design issues related to contemporary cities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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APH	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APL	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Applied Linguistics Ph.D. student
APL	588	Spanish Language Acquisition		N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
APL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Applied Linguistics Ph.D. student

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APL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
APL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	601	Introduction to Applied Linguistics	Overview of the field of applied linguistics. Applies linguistic knowledge to the resolution of language-related issues facing multilingual societies (e.g., second language acquisition and ultimate attainment, literacy, language assessment, bilingualism, heritage and indigenous languages, language attitudes, language planning and policy, language and politics, world Englishes).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
APL	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		

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APL	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		
APM	265	Mathematics of Change I	The mathematics of differential calculus applied to engineering and science. Emphasizes numerical techniques, contextual scientific interpretation, and modeling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
APM	266	Mathematics of Change II	The mathematics of integral calculus and power series applied to engineering and science. Emphasizes numerical techniques, contextual scientific interpretation, and modeling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: APM 265 or MAT 265 with C or better
APM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
APM	301	Introductory Statistics	Probability, distributions, statistical hypothesis testing, t-tests, basic correlation, and regression.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
APM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
APM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-7		
APM	501	Differential Equations I	Linear and nonlinear ordinary differential equations. Existence and uniqueness of solutions, limit sets, stability, Lyapunov functions, linear systems with constant coefficients. Geometry of behavior in two and three dimensions, including Poincare-Bendixson theorem, Lorenz equations, linearization, sensitive dependence on initial conditions, bifurcations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	502	Differential Equations II	Partial differential equations, including classification, method of characteristics, separation of variables, boundary value and initial value problems, Green's functions, maximum principle, distributions, and weak solutions. Students must have already taken or be concurrently enrolled in Differential Equations 1.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	503	Applied Analysis	Convergence sequences and series of functions; metric space topology, compactness, completeness and the Ascoli-Arzelà Theorem; Contraction Mapping Principle, Implicit Function Theorem; intro to Lebesgue integration leading to L^p -spaces; properties of Hilbert spaces, Fourier transform. Students should have knowledge of linear algebra, multivariable calculus, and analysis at the undergraduate level.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	504	Applied Probability and Stochastic Processes	Markov chains, Martingales, probability measures, SDE, Brownian motion, Monte Carlo methods. Students should be an APM graduate student.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	505	Applied Linear Algebra	Fundamentals of linear algebra and numerical linear algebra, including decompositions (LU, QR, SVD), Eigen values, spectral theory, least squares problems. Programming with MATLAB. Students should be an APM graduate student.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	506	Computational Methods	Covers interpolation, solution of nonlinear equations and systems, numerical differentiation, numerical integration, numerical solution of ordinary and partial differential equations. Students should be an APM graduate student.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	520	Advanced Numerical Linear Algebra	Extends topics of APM 505. Introduces essential iterative methods, Gauss-Seidel, conjugate gradients. Methods for SVD, total least squares and root-finding applications in image analysis. Students should have basic knowledge of numerical linear algebra and a programming language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	521	Numerical Analysis for Ordinary Differential Equations	Stability, accuracy, consistency, RK methods, finite differences, linear partial differential equations, dispersion, dissipation, method of lines. Applications and programming. Students should have had a previous graduate course in ODE or applied analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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APM	522	Numerical Methods for Partial Differential Equations	Numerical methods for parabolic, elliptic, and hyperbolic partial differential equations, including finite difference/volume, finite element, and spectral methods. Mathematical concepts of stability, consistency, and convergence. Applications to scientific, biomedical, and industrial problems. Students should have a basic knowledge of PDE's and a programming language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	523	Optimization	Linear programming, unconstrained nonlinear minimization, line search algorithms, conjugate gradients, quasi-Newton methods, constrained nonlinear optimization, gradient projection, and penalty methods. Completion of courses in Applied Linear Algebra and Computational Methods is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	524	Spectral Methods	Extends approximation theory to global methods, including Fourier and orthogonal polynomial expansions. Applications to imaging and hyperbolic, parabolic, and elliptic partial differential equations. Students should have previous graduate courses in ordinary and partial differential equations, basic programming skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	525	High-Performance Computing	Supercomputer architectures, parallel programming environments, languages, libraries, and algorithms for high-performance numerical simulations. Instructor/Department approval is required for this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	526	Advanced Numerical Methods for Partial Differential Equations	Partial content will vary from semester to semester, but may include hyperbolic conservation laws, finite element methods, multigrid methods, and parallel algorithms for partial differential equations. Applications to scientific, biomedical, and industrial problems. Students should have basic knowledge of PDE's and a programming language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	530	Mathematical Cell Physiology.	Mathematical modeling of dynamical aspects of cell physiology. Diffusion, membrane transport, intracellular calcium channel kinetics, calcium oscillations and waves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	531	Mathematical Neuroscience I	Mathematical modeling of electrochemical processes in nerve cells. Dendritic modeling, dendritic spines and synaptic plasticity, bifurcation analysis of excitable membrane models, deterministic and stochastic methods for threshold dynamics and bursting, relaxation oscillations. Students should have had a previous graduate-level PDE course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	532	Mathematical Neuroscience II	Mathematical modeling of systems neuroscience. Network dynamics, coupled phase oscillators, central pattern generators, neural coding, learning and memory. Students should have taken ordinary differential equations or mathematical cell physiology or mathematical neuroscience prior to enrolling in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	533	Mathematical Population Biology I	Selectively covers population biology models in the forms of systems of difference equations or ordinary differential equations. Focuses on mathematical analysis of population models as well as model formulation and simulation. Students should have a previous graduate-level course in ODE.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	534	Mathematical Population Biology II	Selectively covers population biology models in the form of partial differential equations and systems. Focuses on mathematical analysis of population models as well as model formulation and simulation. Students should have a previous basic graduate-level course in ODE and PDE.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	535	Mathematical Models in Medicine	Mathematical models for the etiology, epidemiology, pathogenesis, morphology and treatment of disease. Covers dynamical models of cancer and viral infections.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	541	Stochastic Modeling in Biology	Markov processes, random walks, martingales, branching processes, logistic growth model, Wright-Fisher model, Kingman's coalescent, bound and site percolations, contact processes, voter models. Students should have previously taken course work in probability and/or stochastic processes (or have a recommendation from their advisor). Recommendation from advisor is typically for students in biology or physics that have not taken statistics courses but have a good background in mathematics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	553	Dynamical Systems	Center manifolds, structural stability, normal forms, averaging, chaos, control and synchronization. Students should have a previous graduate course in ODE or applied analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	560	Applied Dynamical Systems	Bifurcations, normal forms, pattern formations, mixing, Lagrangian chaos, and applications to fluid dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

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APM	561	Nonlinear Analysis of PDEs in Fluids	Sobolev spaces; incompressible Euler and Navier-Stokes equations; weak and strong solutions; attractors and the connection with turbulence; geophysical applications. Completion of a course in Differential Equations II is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	570	Applied Linear Operators	Bounded linear and compact operators on Hilbert spaces. Linear integral equations, Fredholm and Hilbert-Schmidt theory, and approximate methods. Distributions. Completion of a course in Applied Analysis is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	575	Perturbation Methods in Applied Mathematics	Regular and singular perturbation methods for ordinary and partial differential equations, Boundary layer theory, matched asymptotic expansions, multiple-scale, homogenization, and WKB methods. Application to nonlinear oscillations, bifurcation and stability problems. Completion of a course in Differential Equations II or Partial Differential Equations in Engineering is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: APM 502 or MAE 502; Credit is allowed for only APM 575 or MAE 505
APM	576	Theory of Partial Differential Equations	Existence and uniqueness theorems, boundary value and initial value problems, characteristics, Green's functions, maximum principle, distributions, and weak solutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	577	Theory of Partial Differential Equations	Continuation of APM 576. Completion of a course in the Theory of Partial Differential Equations is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	581	Geometry and Control of Dynamical Systems I	Manifolds, tangent and cotangent bundle, Lie theory, integrability and controllability, and feedback control. Students should have previously taken coursework in differential equations, applied analysis, applied probability, and stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	582	Geometry and Control of Dynamical Systems II	Variational principles, Euler-Lagrange equations, Hamiltonian systems, optimal control, connections and curvature. Students should have previously taken coursework in differential equations, applied analysis, applied probability, and stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
APM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
APM	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
APM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
APM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
APM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
APM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
AR	461	Adv Ceramics I		Y	LEC	Y	CNV	Herberger College of the Arts	School of Art	3.		
ARA	110	Sculpture Safety	Introduces safety and environmental health in the sculpture studios. Pre- or corequisite for all sculpture classes.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Art	1.		
ARA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	195	Art in My World	Basic concepts and fundamental questions that provide insights into art making and that affect one's understanding and appreciation of art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARA	202	Understanding Photographs	Slide lecture course in understanding photography as a fine art form.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARA	311	Art Appreciation and Human Development	Foundations of art for children and young adults. Emphasizes learning, development, and understanding art in historical and cultural contexts. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: Non-ART student; ENG 101; ENG 102; Minimum Junior standing
ARA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	460	Gallery Exhibitions	Practical experience in all phases of department gallery operations and preparation of gallery publications.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARA	488	Understanding Art	Understanding art as an emergent cultural phenomenon with an emphasis on a critical examination of conceptual issues in art. Writing required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L or HU	Pre-requisites: ARS 101; ARS 102
ARA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		
ARA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARA	460	Gallery Exhibitions	Practical experience in all phases of department gallery operations and preparation of gallery publications.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
ARA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ARA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARB	101	Elementary Arabic I	Reading, writing, speaking, and understanding basic Arabic. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARB	102	Elementary Arabic II	Reading, writing, speaking, and understanding basic Arabic. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ARB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Maximum 24 earned hours
ARB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	201	Intermediate Arabic I	Review of Arabic grammar with emphasis on the development of the skills of listening comprehension, reading, speaking, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ARB	202	Intermediate Arabic II	Review of Arabic grammar with emphasis on the development of the skills of listening comprehension, reading, speaking, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ARB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	311	Advanced Arabic Skills I	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	321	Arabic Conversation I	Emphasizes spoken Arabic and conversation skills. Simultaneously develops communicative skills, vocabulary, and cultural awareness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	331	Arabic/Islamic Culture and Literature	General introduction to the Middle East that synthesizes cultural, social, and literary information. Focuses on the experiences of ordinary Middle Eastern people to convey a grassroots sense of the Middle East.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	335	Arabic Culture and Islam	Develops awareness of Arabic culture and Islam. Covers a variety of cultural topics, including family, status of women, food, music, and Islam.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
ARB	341	Quran Text and Women	Addresses Muslim women scholars' argument that it is not the religion but the patriarchal interpretation of the Quran that have kept Muslim women oppressed.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	351	Classical Arabic Literature	Provides a survey in classical Arabic literature. Focuses on the development of classical Arabic poetry and prose since their interceptions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	411	Advanced Arabic Skills II	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	421	Arabic Conversation II	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ARB	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
ARB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
ARB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ARB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ARB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARD	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		

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ARD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		
ARE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARE	250	Teaching Inquiry in Art	Using inquiry to investigate artwork and to teach others to make and understand art. Introduces viewpoints for art understanding.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ARS 101, ARS 102, and 6 hours (2 classes) from ART 111, 112, 113 or 115 with a C or better or currently enrolled
ARE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	301	Studio Art and Human Development	Study of human development in studio art from early childhood to adult years.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	370	Teaching Visual Culture	Explores issues and applications of everyday aesthetics that contain powerful technological, social, and economic factors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	440	Disciplines of Art Education	Explorations in art education's disciplines, history, and people's artmaking development at diverse age levels and abilities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	482	Teaching Art Processes	Art traditions of the 20th century as a basis for studio and art history instruction. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Fine Arts Art student
ARE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	486	Art Education: Strategies and Applications	Implementation and evaluation of art instruction for K-12 population. Includes teaching of Saturday classes in the Children's Art Workshop. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-Requisites: Must be an Art student and must have completed ARE482 with a grade of B or greater or be currently enrolled
ARE	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ARE	493	Honors Thesis		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Pre-requisites: Must be an Honors student
ARE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	496	Methods and Assessment of Learning in Art	Individual or group research on the assessment of art learning incorporating theory and practice. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be an Art student; ARE 250 with a C or better; Art portfolio completed
ARE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisites: Minimum 90 hours
ARE	510	Visual Culture Research	Research on instruction of everyday aesthetics and related issues that contain powerful technological, social, and economic factors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	520	Issues in Teaching Inquiry in Art	Issues in teaching and learning through inquiry about artworks using print and electronic reproductions and information.	N	DIS	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	525	Research on Art Instruction	Research methods and assessment of learning in art. Pilot studies on the effects of instruction on learning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	530	Issues in Teaching Studio Art	Critical examination of issues concerning teaching multicultural art to different populations of students. Historical and philosophical foundations reviewed. Recommended to be taken before ARE 535.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	535	Research on Teaching Studio Art	Review of empirical and historical research methods, learning theory, and assessment of learning in studio art, including developmental studies and their limitations. Pilot studies on the effects of instruction upon learning. Recommended to be taken after ARE 530.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	540	Teaching Art in Cultural Contexts	Relationship of multicultural perspectives to teaching/learning art criticism, aesthetics, studio art, and art history.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

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ARE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Art	1-12		
ARE	610	Issues and Trends in Art Education	Doctoral-level investigation of historical and contemporary issues related to teaching and research in art education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	611	Curriculum Development in Art Education	Doctoral-level inquiry into the philosophical, psychological, and sociological foundations of curriculum development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Art	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ARP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ARP	451	Architecture Field Studies	Organized field study of architecture in specified national and international locations. Credit/no credit. May be repeated for credit with director approval.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ARP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: ADE 322 with a C or better; Co-requisite: ADE 421; ATE 451
ARP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ARP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ARP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ARP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	SEM	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Master of Architecture student; ADE 522 with a C or better
ARP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Master of Architecture student
ARS	100	Introduction to Art	Understanding of art and its relationship to everyday life through painting, sculpture, architecture, and design. No credit for Art majors or non-Art majors who have completed ARS 101 or 102 or 300.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	201	Art of Asia	History of the art of the Asian cultures, with emphasis on China, Japan, and India. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	202	Art of Africa, Oceania, and the Americas	History of art of Africa, Oceania, and the New World. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	250	History of Photography	History of photography from the 19th century to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	250	History of Photography	History of photography from the 19th century to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	300	Introduction to Art	Course content same as ARS 100 but requires a higher level of accomplishment and comprehension. No credit for Art majors or non-Art majors who have completed ARS 100. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	300	Introduction to Art	Course content same as ARS 100 but requires a higher level of accomplishment and comprehension. No credit for Art majors or non-Art majors who have completed ARS 100. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	302	Art/ Africa,Oceania & Americas	Issues in the art of Africa, Oceania, and the Americas related to ritual, gender, transformation of tradition, and encounters with Europeans.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	Pre-requisite: ENG 102, 105, or 108
ARS	302	Art/ Africa,Oceania & Americas	Issues in the art of Africa, Oceania, and the Americas related to ritual, gender, transformation of tradition, and encounters with Europeans.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	310	The Renaissance in Tuscany	Course taught in Florence, Italy. History of arts in Tuscany with focus on city of Florence from 14th through 16th centuries. Completion of ARS 101 and 102 suggested.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	340	Art in America	American art from colonial times through the Second World War. Not available to students who have completed ARS 542.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	362	Pre-Columbian Art I	Architecture, sculpture, ceramics, painting, and other arts of Mesoamerica before European contact. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	365	Native North American Art	Native American art forms of the United States and Canada from prehistoric times to the present. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	400	History of Printmaking	History of the print as an art form and its relation to other modes and forms of artistic expression.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	402	Art of Ancient Egypt	Aesthetic, philosophical, and cultural basis of Egyptian art from pre-Dynastic period through New Kingdom. Emphasis on sculpture and architectural monuments. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	404	Greek Art	History of art, architecture of Aegean civilizations (Cycladic, Minoan, Mycenaean) and of Greece to end of Hellenistic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	406	Roman Art	Art and architecture of Etruria, the Roman Republic, and the Roman Empire.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	410	Early Christian and Byzantine Art	Art and architecture of the early church and the Byzantine Empire from the 4th to the 15th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102

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ARS	412	Early Medieval Art	Painting, sculpture, architecture, and the minor arts from Migration, Carolingian, and Ottonian periods considered within religious, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	414	Romanesque Art	Sculpture, painting, architecture, and minor arts in western Europe, ca. 1030-1200, considered within religious, economic, and social contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	416	Gothic Art	Painting, sculpture, and architecture in western Europe during the Gothic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	417	Late Gothic Art in Central Europe	Sculpture, painting, and architecture of the late-Gothic style, ca. 1350-1525, considered within religious, social, economic, and political contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ARS 101; ARS 102; Credit is allowed for only ARS 417 or 517
ARS	418	German Renaissance and Reformation Art	Graphics, painting, sculpture, and architecture, ca. 1450-1550. Reformation themes and Renaissance style considered within religious, political, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	422	Italian High Renaissance Art and Mannerism	History of Italian art during the 16th century, including the achievements and influence of Leonardo da Vinci, Raphael, and Michelangelo.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	424	Italian Baroque Art	Italian painting, sculpture, and architecture of the 17th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	426	Art of the 17th Century in Northern Europe	Baroque painting, sculpture, and architecture in Flanders, the Netherlands, France, and England.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	428	Art of the 18th Century	History of painting, sculpture, architecture, graphic arts, and the decorative arts from 1700 to the French Revolution (1789).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	430	Art of Spain and its Colonies	Architecture, painting, and sculpture from 1500 to 1800. Colonial focus on central Mexico and the American Southwest.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	432	19th-Century French Art and Culture	History of painting, graphic arts, sculpture, and architecture, 1800 to 1900 in France in its political, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	434	Art and Visual Culture of 19th Century	History of European art (all media) from French Revolution to Paris World Fair of 1900.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better. Students who have credit for ARS 534, may not enroll in ARS 434
ARS	435	The Pre-Raphaelites	Visual and literary works by Victorian Pre-Raphaelites as works in themselves and through relations between images and texts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-or Co-requisites:ARS 102, ENG 221, or HST 202 (with D or better if completed)
ARS	436	The Artist, War, and Revolution (Versailles to Vietnam)	Critical study of artistic responses to war and revolution in Europe and United States from French Revolution to Vietnam conflict.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	437	British Culture and Empire	Examines British imperial culture in art and literature, 1870-1914, and postcolonial theory.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:A grade of B or better in one course in ARS, ENG, or HST at 200 level or higher
ARS	438	Art of the 20th Century I	Developments and directions in art between 1900 and World War II.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101 and ARS 102 with D or better or currently enrolled
ARS	439	Art of the 20th Century II	Art since World War II, with consideration of new concepts and experimentation with media and modes of presentation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 102 with a grade of B or better
ARS	442	Critical Issues in American Painting	Explores issues of national identity and western expansion, Manifest Destiny, through images of race and violence in western American painting from 1800 to the early 20th century. Includes "claiming and settling the wilderness," cultures in conflict, the cowboy, and visions of an enchanted land.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	451	20th Century Photography	Personalities, processes, images, and ideas in photography from 1914 to present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	458	Critical Theories in the Visual Arts	Examines current critical theories through their application to all visual arts. May include new historicism, Marxism, deconstruction, post-structuralism, semiotics, Lacanian psychoanalysis, feminism, postmodernism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	459	Writing Art Criticism	Traditional and contemporary approaches to the criticism of art. Students write critical essays. Latter half of the semester stresses the criticism of contemporary art in various media.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ARS 458
ARS	460	Art Now	Critical overview of major issues and controversies of the last 10 years within the global, national, and local art scene.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ARS 439
ARS	466	Native American Art of the Southwest	American Indian art in the southwestern states from its origins to the present day. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	
ARS	468	Art of the Arctic and Northwest Coast	Art associated with ceremony, shamanism, and daily life in the Arctic and on the Northwest Coast. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	469	Mexican Art	Art of Mexico and related Central American cultures from the prehistoric to the contemporary schools. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	469	Mexican Art	Art of Mexico and related Central American cultures from the prehistoric to the contemporary schools. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	472	Art of China	Study of major forms in Chinese art: ritual bronze, sculpture, ceramic, calligraphy, painting, and architecture. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	473	Art of Japan	Japanese art from the Joman period to the present. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	475	Chinese Painting	From Ku K'ai-chin to Ch'i Pai-shih. Major artists, styles, and movements in Chinese painting. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better

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ARS	480	Research Methods	Methodology and resource material for art historical research. Techniques of scholarly and critical writing and evaluation of bibliographic sources.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L	Pre-requisites: Museum Studies or Art History student; Junior standing; ARS 101 and ARS 102 with B- or better
ARS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	485	Women in the Visual Arts	Historical study of art by women in various media; related social, political, educational issues; representation of women in art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ARS	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Pre-requisites: Must be an Honors student
ARS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisite: Minimum 90 hours
ARS	501	Methodologies and Art History	History of the discipline and an exploration of various methodologies, critical theory, and bibliographies used by art historians.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	502	Critical Studies in Egyptian Art	Egyptian art from pre-Dynastic to New Kingdom periods. Focus on aesthetic, philosophical, and cultural contexts. Research paper and readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	504	Critical Approaches to Greek Art	Art and architecture of Aegean civilizations (Cycladic, Minoan, Mycenaean) and of Greece to end of Hellenistic period. Research paper and readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:Must be a Graduate Student
ARS	506	Critical Studies in Roman Art	Art and architecture of Etruria, the Roman Republic, and the Roman Empire. Research paper and/or supplemental readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	514	Critical Approaches to Romanesque Art	Sculpture, painting, architecture, and the minor arts in western Europe, ca. 1030-1200, considered within religious, economic, and social contexts. Requires research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	516	Critical Approaches to Gothic Art	Architecture, sculpture, painting, and the minor arts in western Europe, ca. 1150-1350, considered within religious, social, and economic contexts. Requires research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	517	Critical Approaches to Late Gothic Art	Art of the late-Gothic style, ca. 1350-1525, considered within religious, social, economic, and political contexts. Requires research or reading project.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	522	Sixteenth-Century Italian Art	Critical study of painting, sculpture, and architecture in 16th-century Italy in its religious and historical context.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	528	Eighteenth-Century Art in Europe	Critical study of European art from the late Baroque to the early years of Neoclassicism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	530	Art of Spain and New Spain	Critical study of architecture, painting, and sculpture from 1500 to 1800.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student.Students who have credit for ARS 430, may not enroll in ARS5430
ARS	532	Art, Politics, and Patronage, 1770-1850	Critical analyses of political events in Europe. Examines issues of patronage, art as propaganda. Impact of war and revolution on visual arts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	534	Studies in Modern European Art, 1850-1914	Critical study of visual arts using primary source material from mid-19th century to WWI within philosophical, socioeconomic, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours must be greater than or equal to 108; Must be a Senior or a Post Bacc Undergraduate or be a Graduate Student. Students who have credit for ARS 434, may not enroll in ARS 534
ARS	542	Critical Issues in American Painting	Explores themes and social issues in American art with a critical study of American painting from the 18th century to 1850.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	562	Art of Ancient Mesoamerica	Critical study of art and architecture of Mexico and Maya areas before Spanish contact.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	565	Native Art of North America	Critical examination of Native American art within culture, prehistory to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	574	Studies in Japanese Art	Critical examination of the nature and history of Japanese art, its rich heritage and its indebtedness to foreign sources.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	575	Approaches to Chinese Painting	Critical history of Chinese painting from Eastern Chou to 1911. Emphasis on masters, regional developments, and conceptual underpinnings.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARS	585	Women in the Visual Arts	Historical study of art by women in various media; related social, political, educational issues; representation of women in art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Art	1-12		
ARS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		
ARS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-15		
ARS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		
ARS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Art	1-15		
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	

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ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARS	438-W	Art of the 20th Century I	Developments and directions in art between 1900 and World War II.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ARS	439	Art of the 20th Century II	Art since World War II, with consideration of new concepts and experimentation with media and modes of presentation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
ARS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ARS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	453	Experimental Printmaking	Alternative techniques and methods to traditional approaches to printmaking. May be repeated for credit. Fee.	N	STO	Y	OPT	Herberger College of the Arts	School of Art	3.		
ART	111	Drawing I	Fundamental, technical, and perceptual skills using common drawing media and their application to pictorial organization. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	111	Drawing I	Fundamental, technical, and perceptual skills using common drawing media and their application to pictorial organization. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	112	2-D Design	Fundamentals of pictorial design. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	112	2-D Design	Fundamentals of pictorial design. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	113	Color	Principles of color theory as related to the visual arts. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art Undergraduate student
ART	113	Color	Principles of color theory as related to the visual arts. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	115	3-D Design	Fundamentals of 3-D form. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	115	3-D Design	Fundamentals of 3-D form. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art Undergraduate student
ART	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ART	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	201	Photography I	Development of skills and techniques of black and white photography. Emphasis on camera work and darkroom procedures. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Co-requisite: ART 202
ART	202	Photography I Lab	fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	0.		Co-requisite: ART 201
ART	204	Photography II	Photography as an art medium with additional exploration into personal photographic aesthetics. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Art Undergraduate student; ART 101 or ART 201 with C or better
ART	211	Drawing II	Continued development of technical and perceptual skills. Emphasizes materials and pictorial content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	211	Drawing II	Continued development of technical and perceptual skills. Emphasizes materials and pictorial content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 112 with C or better
ART	214	Life Drawing I	Development of skill and expressiveness in drawing the basic form, construction, and gesture from the human figure. Lab. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	214	Life Drawing I	Development of skill and expressiveness in drawing the basic form, construction, and gesture from the human figure. Lab. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 112 with C or better
ART	223	Painting I	Fundamental concepts and materials of traditional and experimental painting media. Emphasizes preparation of painting supports, composition, and color. Lab. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		

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ART	223	Painting I	Fundamental concepts and materials of traditional and experimental painting media. Emphasizes preparation of painting supports, composition, and color. Lab. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 113 with C or better
ART	227	Watercolor I	Fundamental concepts, materials, and techniques of watercolor. Emphasizes problem solving, basic skills, composition, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 113 with C or better
ART	227	Watercolor I	Fundamental concepts, materials, and techniques of watercolor. Emphasizes problem solving, basic skills, composition, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 113 with C or better
ART	231	Sculpture I	Explores sculptural forms through concepts related to basic materials. Focus on studio production, safety, aesthetic criticism, and history of sculpture. 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; ART 111 and ART 115 with C or better; Pre- or Corequisite: ARA 110 (with C or better if completed)
ART	253	Introduction to Printmaking	Introduces basic monotype, intaglio, relief, and related techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 113 with C or better
ART	261	Ceramic Survey	Handforming methods, throwing on the wheel, decorative processes, and glaze application. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 112 and ART 115 with C or better
ART	272	Metalworking I: Introduction	Emphasizes metal fabrication. Basic techniques of cutting, piercing, forging, soldering, and forming. Not open to seniors. 6 hours a week. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; Maximum Junior standing; ART 112 and ART 115 with C or better
ART	274	Wood I	Fundamental woodworking techniques to produce creative functional 3-D objects. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	276	Fibers I	Explores traditional and contemporary materials and basic techniques related to fibers. Embroidery, feltmaking, dyeing, block printing, plaiting, 3-D structures. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; Maximum Junior standing; ART 112 and ART 115 with C or better
ART	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Art undergraduate student
ART	304	Advanced Photography	Interpretation and manipulation of light as a tool in the performance of expressive photography. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; Completed portfolio milestone (if required); ART 204 and (ART 101 or ART 201) with C or better
ART	305	Color Photography I	Applies color transparencies and prints to photographic art. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; Must have completed the portfolio milestone (if required); ART 204 and ART 101 or ART 201 with a C or better
ART	308	Digital Photographic Images I	Scanning, manipulation, refinement, and compositing of photographic images on the computer. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; Completed portfolio milestone (if required); ART 204 and (ART 101 or ART 201) with C or better
ART	311	Drawing III	Emphasizes composition, exploration of drawing media. 6 hours a week. Requires acceptance into the appropriate professional program or instructor approval. Contact your academic advisor in the School of Art for more information.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 211 with C or better
ART	311	Drawing III	Emphasizes composition, exploration of drawing media. 6 hours a week. Requires acceptance into the appropriate professional program or instructor approval. Contact your academic advisor in the School of Art for more information.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be Fine Arts student in professional program AND completed ART211 with a C or greater or be currently enrolled.
ART	314	Life Drawing II	Drawing from the model with greater reference to structural, graphic, and compositional concerns. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be Fine Arts student AND completed ART214 with a C or greater or be currently enrolled
ART	314	Life Drawing II	Drawing from the model with greater reference to structural, graphic, and compositional concerns. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student or completion of portfolio milestone; ART 214 with C or better
ART	323	Painting II	Development of competency in skills and expression. Assigned problems involve light, space, color, form, and content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student with portfolio; ART 223 with C or better
ART	325	Figure Painting	The human figure clothed and nude as the subject for painting in selected media.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART 314 and ART 323 with a grade of D or better
ART	327	Watercolor II	Explorations of personal expression in watercolor. Continued development of watercolor skills using traditional and experimental materials and techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 227 with C or better
ART	327	Watercolor II	Explorations of personal expression in watercolor. Continued development of watercolor skills using traditional and experimental materials and techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	331	Sculpture II	Continuation of ART 231 with an emphasis on metal fabrication as an expressive sculptural process. Techniques in welding, cutting and bending of metals and their aesthetics. 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student with portfolio completed; Pre- or Co-requisite: ARA 110 (with C or better if completed)
ART	332	Sculpture III	Explores diverse media with a focus on mold-making processes. Development of the sculpture portfolio. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART231 AND ART331 AND be an ART student
ART	333	Foundry Casting Methods	Fine art and techniques of metal casting: mold making, foundry safety, finishing techniques, application of patinas, and history of casting. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART231, ART331 and ART332 or be currently enrolled in ART332 and must be an Art student
ART	345	Visualization and Prototyping I	Studio/seminar introduces concepts of computer visualization, modeling, and rapid prototyping in an interdisciplinary manner.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Digital Art OR Intermedia student
ART	346	3-D Computer Imaging and Animation	3-D modeling and animation. Emphasizes concepts and fine arts applications. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.	CS	Prerequisites: Must be an ART student
ART	348	Animation Motion Studies	Principles and applications of 3-D animation for fine arts. Emphasizes animation techniques for expressive effects. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART346 or be currently enrolled in ART346 AND be an ART student

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ART	351	Intaglio I	Introduces concepts and techniques of intaglio processes, including non-acid and acid techniques such as drypoint, line etch, aquatint, photo etching; introduces multiple plate printing ala poupee wiping, chine colle, and basic color. Idea-generating exercises include visual signifiers of identity, democratic multiple, time and space, the disembodied gaze, and reconsidering beauty. Studio 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): ART 253 with C or better
ART	352	Lithography I	Monochromatic and color planographic printmaking utilizing stone and aluminum plate processes. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 with C or better
ART	354	Screen Printing I	Introduces paper, direct, and photographic stencil techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART253 AND be an ART student
ART	355	Printmaking as Photography	Introduces photographic principles and skills for photomechanical printmaking processes, including photosilkscreen, photolitho, and photoetching. 6 hours a week. Fee.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 with C or better
ART	360	Ceramic Throwing	Design analysis and production of functional pottery. Emphasis on throwing techniques, surface enrichment, and glaze application. 6 hours a week. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 261 with C or better
ART	363	Ceramic Clay-Glaze		N	LEC	N	CNV	Herberger Inst Design & Arts	School of Art	3.		
ART	364	Ceramic Handbuilding I	Search for form using handbuilding techniques. Kiln firing and related problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 with C or better
ART	365	Ceramic Handbuilding II	Continuation of ART 364 with an additional focus on large-scale works, surface treatments, and glaze decoration with related kiln firing applications. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 and ART 364 with C or better
ART	372	Metalworking II	Metal fabrication techniques including surface embellishment. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 with C or better
ART	373	Metalworking III	Compression, die, and stretch forming as applied to hollow form construction. Hot and cold forging techniques as applied to smithing. 6 hours a week. fee	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 with C or better
ART	374	Wood II	Individual and directed problems in wood related to the production of unique functional art objects. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 274 with C or better
ART	376	Woven Structures I	Explores weaver- and loom-controlled structures with an emphasis on formal issues, historic precedence, and contemporary investigations. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 276 with C or better
ART	377	Surface Design	Application of dyes and pigments on cloth exploring techniques, formal issues, and content. Cyanotype, monoprinting, painting on silk, resists, stenciling. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 276 with C or better
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Prerequisites: Must be an ART student
ART	401	Nonsilver Photography	Recognition of the inherent characteristics of nonsilver processes and their use in communicating ideas. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:ART 304 with a grade of D or better
ART	403	Senior Photographic Projects	Technical and philosophical refinement of personal aesthetic with various photographic media. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 204 and (ART 101 or ART 201) with C or better
ART	404	Portraiture Photography	Photographing people. Critical discussions and slide lectures on issues in portraiture. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 204 and (ART 101 or ART 201) with C or better
ART	406	Photo Techniques	Camera and darkroom techniques with emphasis on creative control of the black and white print. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student and you must have a C or greater in ART204 AND ART101 or ART201
ART	407	View Camera	View camera and darkroom techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student and you must have a C or greater in ART204 AND ART101 or ART201
ART	408	Digital Photographic Images II	Develops personal aesthetic in digital photography. May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:ART 308 with a grade of D or better
ART	409	Photographic Exhibition	Care of photographic prints, print presentation, and exhibition. Practical experience in gallery operations. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	410	Landscape Photography	Photographing landscapes. Critical discussion and presentations on issues in landscape photography. May be repeated for credit. 6 hours a week.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	411	Drawing IV	Visual and intellectual concepts through problem solving and independent study. Emphasis on the individual creative statement. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 211 and ART 311 with C or better
ART	411	Drawing IV	Visual and intellectual concepts through problem solving and independent study. Emphasis on the individual creative statement. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: must have completed ART 211 with a C or greater and be enrolled in one of a list of Art plans/majors and have completed ART 311 with a C or greater or be currently enrolled
ART	414	Life Drawing III	Various media and techniques on an advanced level. The human figure as an expressive vehicle in various contexts. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ART 314
ART	414	Life Drawing III	Various media and techniques on an advanced level. The human figure as an expressive vehicle in various contexts. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ART 314
ART	415	Art Anatomy	Study of human anatomical structures as applied to the practice of figure-oriented art. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	4.		Prerequisites: Art student; ART 214 with C or better
ART	423	Painting III	May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 223 and ART 323 with C or better

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ART	425	Advanced Figure Painting	The human figure clothed and nude as the subject for painting in selected media. May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 223, ART 323 and ART 314 with C or better
ART	427	Advanced Watermedia	Continuation of ART 327. Advanced techniques, concepts, and methods with watercolor and other water-based media on paper. 6 hours a week. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be Fine Arts student in professional program; must have completed ART227 with a C or greater; completed ART327 with a C or greater or be currently enrolled
ART	427	Advanced Watermedia	Continuation of ART 327. Advanced techniques, concepts, and methods with watercolor and other water-based media on paper. 6 hours a week. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	431	Special Problems in Sculpture	Development of a personal approach to sculpture. Emphasis on form, individual problems, and related color technology. Professional practices and presentation. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231, ART 331 and 332 with C or better
ART	432	Neon Sculpture	Techniques for creating neon in an art context. Glass tube bending and fabrication. Construction of artworks utilizing light-generating gasses. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	435	Foundry Research Methods	Research in foundry techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	436	Architectural Sculpture	Sculptural concepts as related to architecture and other man-made environments. Scale drawing, models, and relief sculpture. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231, ART 331 and ART 332 with C or better
ART	437	Film Animation	Production of short 16mm films that feature articulated sculptural objects, models, dolls, puppets, and graphics through the use of single-frame filming techniques. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	438	Experimental Systems in Sculpture	Simple electrical and mechanical systems that can be utilized in the context of studio art and installations. Requires active production of studio artworks. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	439	Intermedia Studio	Exploring visual effects by combining traditional and nontraditional methods, techniques, and concepts. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must be an ART student
ART	440	New Media Concepts	Continued experiments with new media and interdisciplinary concerns in art. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Corequisite(s): ART 441
ART	441	Video Art	Utilizing video and audio equipment essential to the production of broadcast quality video art. 2 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1.		Pre-requisite: Art portfolio completed; Co-requisite ART 440
ART	442	Folk/Outsider Art	Explores ideas, attitudes, and art of contemporary self-taught, visionary, and outsider artists. Research and studio practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must be an ART student
ART	443	Intermedia Performance	Experimental, conceptual, and interdisciplinary studio art with emphasis on performance and new media practices. May be repeated once for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Art student
ART	449	Computer Animation and Video	Integrates 3-D fine arts animation with video and compositing. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 346 and ART 348 with C or better
ART	450	Computer Animation and Audio	Integrates audio with 3-D animation for fine arts applications. Includes compositing and effects. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 346, ART 348 and ART 449 with C or better
ART	451	Advanced Intaglio	Gives students the opportunity to further develop their skills with intaglio printmaking techniques. Primary areas of research include image development, multiple plate and color printing. Additional techniques include lift grounds, spit bite aquatint, white ground, and viscosity printing. Develops sharper critical responses, both aesthetically and conceptually, to their own work, as well as the work of other artists. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART 351 with C or better or currently enrolled
ART	452	Advanced Lithography	Continuation of ART 352. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student or Completed the portfolio milestone; ART 253 and ART 352 with C or better
ART	454	Advanced Screen Printing	Continuation of ART 354. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 and ART 354 with C or better
ART	455	Advanced Photo Processes for Printmaking	Continued study of photomechanical techniques and applications to printmaking or photographic processes. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student or Completed the portfolio milestone; ART 253 and ART 355 with C or better
ART	456	Fine Printing and Bookmaking I	Letterpress printing and typography as fine art. Study of history, alphabets, mechanics of hand typesetting, presswork, and various forms of printed matter. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART253
ART	457	Fine Printing and Bookmaking II	Continuation of ART 456. Bookbinding, book design and printing, advanced typography, theory, and presswork. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 and ART 456 with C or better
ART	458	Papermaking	History, theory, demonstrations, sheet forming, collage treatments, and 3-D approaches. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART253
ART	459	Monoprinting	Nonmultiple printed image using a variety of technical approaches. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART student or Completed the portfolio milestone; ART 253 with C or better
ART	460	Ceramic Clay	Research into various clay body formulations, local natural materials, slip glazes, and engobes. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Art student AND you must have a C or greater in ART261 AND ART360 AND ART364(or be currently enrolled in ART360 & ART364) AND
ART	463	Ceramic Glaze	Glaze calculation and formulation using various glaze colors and surfaces. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 261 and ART460 with C or better

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ART	466	Special Problems in Ceramics	Emphasis on personal expression within structure of seminars, critiques, and studio work. Professional methods of presentation/documentation of work. 6 hours a week. May be repeated for credit. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 and ART 364 with C or better
ART	470	Computer Animation Portfolio	Production of videotape and CD 3-D animation portfolios for fine arts and industry integrating animation, video, and audio. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.	CS	Prerequisites: You must be an ART student AND you must have a C or greater in ART346 AND ART348 AND ART449(or be currently enrolled in ART348& ART449) AND
ART	472	Metalworking IV	Forging, forming, and surface metalworking techniques with a focus on personal statements and craftsmanship. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 and ART 372 with C or better
ART	473	Metalworking: Special Problems	Special problems in metalworking related to techniques and individual directions. 6 hours a week. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 and ART 373 with C or better
ART	474	Advanced Wood	Extended experience and advanced techniques in the use of wood to create functional works of art. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 274 and ART 374 with C or better
ART	476	Woven Structures II	Emphasizes personal expressions and continues technical exploration in woven structures. May be repeated for credit. 6 hours a week. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 276 and ART 376 with C or better
ART	477	Printed Textiles	Techniques for screen printing on fabric exploring pattern as a compositional element. Various stencil methods including photographic processes. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 276 and ART 377 with C or better
ART	478	Advanced Surface Design	Emphasis on personal expression with advanced problems in stitch resist, arashi shibori, transfers, indigo, vat and disperse dyes, and pigments. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART276 AND ART377 AND ART447
ART	479	3-D Fibers	Explores traditional and nontraditional 3-D fiber techniques and media. Discussion, research, and critiques augment technical demonstrations. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisite: Art student
ART	492	Honors Directed Study		N	STO	N	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ART	493	Honors Thesis		N	STO	N	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Prerequisites: You must be an Honors student
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Prerequisites: Must be an ART student
ART	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisite: Art student
ART	530	Digital Compositing	Fine arts digital compositing of computer animation, video, and video editing of composites with audio. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	540	Digital Motion Studies	Fine arts digital motion studies using computer animation and video. Studio. Fee. Prerequisite: ART 346 or instructor approval. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	551	Advanced Intaglio	Gives students the opportunity to further develop their skills with intaglio printmaking techniques. Primary areas of research include image development, multiple plate and color printing. Additional techniques include lift grounds, spit bite aquatint, white ground, and viscosity printing. Develops sharper critical responses, both aesthetically and conceptually, to their own work, as well as the work of other artists. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Your total Earned Hours must be greater than or equal to 108 AND Academic Level must be Senior or Post Bac Undergrad OR you must be a Non Degree Grad or in any Grad program
ART	582	Art Research	Independent study research using classroom facilities and supplies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ART	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

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ART	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ART	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	621	Studio Problems	Advanced study. 6 hours a week each section. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ART	682	MFA Exhibition Research	MFA exhibition practicum using classroom facilities and supplies. Can be used in place of ART 680.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	1-6		
ART	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ART	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AS	150	Animal Husbandry		Y	LEC	Y	CNV	Ira A. Fulton Engineering	W. P. Carey School of Business	3.		
ASB	100	Introduction to Global Health	Current global health crises, challenges; tools for describing health and disease; ecological, cultural, social, historical, political-economic factors; comparative health systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
ASB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	200	Food and Culture	Uses the case of food to explore how culture shapes human well-being, including the impact of political-economic systems on what we have and chose to eat.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & C	Pre-requisites: Students who have credit for SSH 200, may not enroll in ASB 200. Must have ENG 101, 105, 107, or ENG 111.

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ASB	202	Ethnic Relations/U.S.	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H & C	
ASB	210	Sex, Marriage, and Evolution	Examines the sexual nature and behavior of humans from both a biological and an anthropological point of view.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G	
ASB	222	Buried Cities and Lost Tribes	Archaeology through its most important discoveries: human origins, Pompeii, King Tut, the Holy Land, Southwest Indians, and methods of field archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	223	Buried Civilizations of the Americas	Archaeology through examination of several ancient civilizations of Meso-, South, and North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	230	Beginning Culture Theory	Bridges ASB 102 and upper-division courses; introduces cultural theory and fosters independent thinking, critical analysis, communication, and adaptability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	231	Arch Field Methods	Excavation of archaeological sites and recording and interpretation of data. Includes local field experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	
ASB	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G	
ASB	252	Anthropology of Sports	Cross-cultural examination of symbolic and social dimensions of sports past and present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
ASB	301	Global History of Health	Examines disease and health transitions in broadest context of human history, from primate ancestors to hunter-gatherers, to transcontinental contact, colonialism, industrialization, urbanization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit in SSH 301, you may not enroll in ASB 301
ASB	302	Ethnographic Field Study in Mexico	Fieldwork study of cultural adaptation, Mexican culture, United States-Mexican cultural conflict, ethnographic research methods, and local culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	
ASB	310	Precolonial Africa	Surveys social, economic, political, cultural, and economic institutions and civilizations of Africa before European colonialism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	311	Principles of Social Anthropology	Comparative analysis of domestic groups and economic and political organizations in primitive and peasant societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	314	Comparative Religion	Origins, elements, forms, and symbolism of religion; a comparative survey of religious beliefs and ceremonies; the place of religion in the total culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	319	The North American Indian	Archaeology, ethnology, and linguistic relationship of the Indians of North America. Does not include Middle America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	320	Indians of Arizona	Traditional cultures and the development and nature of contemporary political, economic, and educational conditions among Arizona Indians.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	321	Indians of the Southwest	Cultures of the contemporary Indians of the southwestern United States and their historic antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & H & C	
ASB	322	Peoples of Mesoamerica	Indigenous, mestizo, and national cultures, rural and urban peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	324	Peoples of the Pacific	Peoples and cultures of Oceania focusing particularly on societies of Melanesia, Micronesia, and Polynesia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	325	Peoples of Southeast Asia	Cultural-ecological perspective on the peoples of mainland and insular Southeast Asia. Subsistence modes, social organization, and the impact of modernization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	326	Human Impacts on Ancient Environments	World survey of successful and unsuccessful ancient societies and their impacts on the environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	
ASB	327	Action Anthropology	Explores contemporary issues and problem solving in Cuna, Micronesia, Mayan, and U.S. Latino communities, through applied anthropology and community initiatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	330	Principles of Archaeology	Methods and theories for reconstructing and explaining the lifeways of prehistoric peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: ASB 222 or ASB 223, with a grade of D or better
ASB	335	Prehistory /Southwest	Anthropological understandings of major cultural processes and events in the prehistory of the American Southwest using evidence from archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H & C	
ASB	337	Pre-Hispanic Civilization of Middle America	Preconquest cultures and civilizations of Mexico. The Aztecs, Mayas, and their predecessors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	338	Archaeology of North America	Origin, spread, and development of the prehistoric Indians of North America up to the historic tribes. Does not include the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites: ASB 222 or ASB 223, with a grade of D or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASB	344	Technology and Society	Development of technology in relation to society, work, science, the environment, public health, and cultural values related to social change.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	350	Anthropology and Art	Art forms of people in relationship to their social and cultural setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	351	Psychological Anthropology	Approaches to the interrelations between the personality system and the sociocultural environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	(HU or SB) & G	
ASB	355	Shamanism, Healing, and Consciousness	World views, practices, and roles of shamans and traditional and contemporary healers; explanatory biopsychological models of consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	HU or SB	
ASB	361	Pleistocene Archaeology	Biosocial evolution in the Pleistocene, emphasizing technological achievements and the relationship between technology and environment in western Europe, sub-Saharan Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	H	Pre-requisites: ASB 222 or ASB 223, with a grade of D or better
ASB	362	The Neolithic Revolution and its Consequences	Surveys models for the appearance of food production in the Old World, and its consequences for emergent social complexity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	H	Pre-requisites: ASB 222 or ASB 223, with a grade of D or better
ASB	366	African Archaeology: Precolonial Urban Culture	Overview of African civilization from the last 10,000 years up to 1850 via archaeological, documentary, and oral data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G & H	
ASB	368	Prehistoric and Historic Hunter-Gatherers	Studies known hunting and gathering societies with the goal of developing approaches to understanding past hunting and gathering societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASB 222 or ASB 223, with a grade of D or better
ASB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	400	Cultural Factors in International Business	Anthropological perspectives on international business relations; applied principles of cross-cultural communication and management; regional approaches to culture and business.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	402	Visual Anthropology	Explores visual anthropology as a method for social documentation, and as a way to interpret cultural ways of seeing. Brings together anthropology, fine art, and art history students to exchange ideas about how we create, interpret, and communicate visual meanings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	410	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	Pre-requisites: ASB 100 (or SSH 100) or ASB 102 with D or better
ASB	412	History of Anthropology	Historical treatment of the development of the culture concept and its expression in the chief theoretical trends in anthropology between 1860 and 1950.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L or SB	Pre-requisites: ASB 102 with a D or better
ASB	416	Economic Anthropology	Economic behavior and the economy in preindustrial societies; description and classification of exchange systems; relations among production, exchange systems, and other societal subsystems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L or SB	
ASB	417	Political Anthropology	Comparative examination of the forms and processes of political organization and activity in primitive, peasant, and complex societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	
ASB	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	430	Social Simulation	Introduces computer simulation and agent-based modeling to study social systems. Credit is allowed for only ASB 430 or CPI 430.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	CS	
ASB	443	Cross-Cultural Studies in Global Health	Direct investigations of society, ecology, and health in international settings.	N	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-6	SB & G	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit for SSH 403, you may not enroll in ASB 443
ASB	452	Community Partnerships for Global Health	Supervised community-based activities relevant to a global perspective on contemporary U.S. health. Addresses community-identified issues using appropriate methodologies.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9	SB	Pre-requisites:SSH 400 or ASB 440 with a grade of D or better, or currently enrolled. If you have credit for SSH 402, you may not sign up for ASB 452
ASB	455	Senior Seminar in Global Health	Students create health solutions, integrating theoretical, methodological, ethical, and experiential learning related to the global health major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	462	Medical Anthropology: Culture and Health	Role of culture in health, illness, and curing; health status, provider relations, and indigenous healing practices in United States ethnic groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	C	
ASB	463	Political Ecology of the Border	Using a political ecology approach, focuses on the creation of border communities of Southwest North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	464	The Ethnography of Mexican Border Rural Settings	Focuses on the internal characteristics of a selected Mexican rural border towns and villages; analyzes the dynamics of development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	466	Peoples and Cultures of Africa	Surveys African peoples and their cultures, external contact, and changes. Meets non-Western requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G & H	
ASB	471	Introduction to Museums	History, philosophy, and current status of museums. Explores collecting, preservation, exhibition, education, and research activities in different types of museums. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	Pre-requisites: ASB 102; ASM 104

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASB	480	Principles of Linguistics	Descriptive and historical linguistics. Surveys theories of human language, emphasizing synchronic linguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	481	Language and Culture	Applies linguistic theories and findings to nonlinguistic aspects of culture; language change; psycholinguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: ASB 102 with a D or better
ASB	483	Sociolinguistics and the Ethnography of Communication	Relationships between linguistic and social categories; functional analysis of language use, maintenance, and diversity; interaction between verbal and nonverbal communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	485	U.S.-Mexico Border in Comparative Perspective	Explores the multicultural and social dimensions of communities along the U.S.-Mexico border, emphasizing social organization, migration, culture, and frontier ideology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	489	Doing Research in Anthropology	Research process learned through critical evaluation of literature, hands-on analysis and interpretation of data, and scientific writing Rotating topics. May be repeated for credit.	N	LAB	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Must be an Honors student
ASB	493	Honors Thesis	Honors Thesis	N	RSC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6	L	Pre-requisites: Must be an Honors student
ASB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		Pre-requisites: Must be an Honors student
ASB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
ASB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	DIS	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
ASB	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	501	Applied Medical Anthropology	Overview of anthropology's applications in medicine and its adaptations to U.S. ethnic populations. Requires research project in medical setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	502	Health of Ethnic Minorities	Prevalence of illness, risk factors, health ecology, and medical and indigenous treatments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	503	Advanced Medical Anthropology	Theory in medical anthropology and cross-cultural studies that illustrate particular theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	504	Ethnic Relations	Structural processes of intergroup relations, methods for investigating psychocultural dimensions of ethnicity with focus upon U.S. ethnic groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	506	Gender, Emotions, and Culture	Relationships among gender and emotion across cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	508	Colonial Rule and the African Experience	Impact of European colonial rule on the shaping of African consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	510	Health: Social and Biocultural Theories	Comparative and critical approaches to complexities of health, drawn from anthropology and related fields Focuses on theories that address how social and cultural factors shape human health.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	511	Ethics in Health Social Science Research	Ethics and social justice issues in community-based health research relevant to health social science, including informed consent, community involvement, control, advocacy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	512	Social Science Applications in Community Health	Supervised community-based activities relevant to improvement of health through application of social science theory.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9		
ASB	513	Research Design and Proposal Writing in Health Social Science	Research design, piloting, and proposal writing for social scientists conducting health research.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	525	Introduction to Material Culture	Considers how objects embody social relationships and therefore cultural meanings. Seminar explores theories that give insight into social processes such as exchange, consumption, and identity.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	529	Culture and Political Economy	Origin and spread of Western capitalism and its impact on non-Western societies. Utilizes ethnographic and historical case studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		

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ASB	530	Ecological Anthropology	Relations among the population dynamics, social organization, culture, and environment of human populations, with special emphasis on hunter-gatherers and extensive agriculturalists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	531	Anthropology of Development	Theories of development and the human and environmental consequences of development, with particular emphasis on rural Southeast Asia.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	532	Graduate Field Anthropology	Independent research on a specific anthropological problem to be selected by the student in consultation with the staff. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	2-8		
ASB	533	Sustainable Urban Dynamics.	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites:If fyou have received credit for SOS 532, you may not enroll in ASB 533
ASB	536	Ethnohistory of Mesoamerica	Indigenous societies of southern Mexico and Guatemala at Spanish contact and their postconquest transformation. Emphasis on the Aztec Empire.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	537	Topics in Mesoamerican Archaeology	Explores changing organization of pre-Columbian civilizations in Mesoamerica through interpretive issues, such as regional analysis, chiefdoms, urbanism, and exchange.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	540	Scholarly Inquiry in Anthropology	Basic issues and concepts in anthropology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	541	Theory in Sociocultural Anthropology	Basic issues and concepts in sociocultural anthropology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	542	Archaeology of Small-Scale Societies	Approaches to small-scale (i.e., hunter-gatherer and tribal) societies, archaeological method and theory, ethnography, models of human and cultural evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	543	Method and Theory of Archaeology II	Covers concepts of social complexity along with economy, demography, and social dynamics, followed by archaeological research design.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	544	Settlement Patterns	Spatial arrangement of residences, activity sites, and communities over landscape. Emphasizes natural and cultural factors influencing settlement patterns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	546	Pleistocene Prehistory	Development of society and culture in the Old World during the Pleistocene epoch, emphasizing technological change through time and the relationship of people to their environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	547	Issues in Old World Domestication Economies	Archaeological evidence for transitions in Old World subsistence economies from hunting and gathering to dependence on domesticated plants and animals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	549	Chiefdoms	Examines archaeological evidence of chiefdoms, distinguished by hereditary leadership and non-bureaucratized decision-making elite, to illustrate emergence of social complexity, inequality.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	550	Economic Archaeology	Prehistoric economies in hunter-gatherer, tribal, and complex societies. Covers subsistence strategies, craft production and specialization, and exchange.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	551	Prehistoric Diet	Critical review of techniques for recovering dietary information and theoretical models concerned with explaining diet and nutrition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	555	Complex Societies	Examines structural variations in hierarchically organized societies, along with origins, dynamics, and collapse.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	558	Mortuary Practices and Cultural Analysis	Critical overview of theory and methods of reconstructing lifeways of past peoples with ethnographic/archaeological data and a bioarchaeological perspective.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	559	Archaeology and the Ideational Realm	Postprocessual and other views concerning relevance of mental phenomena for understanding sociocultural change. Various approaches to inferring prehistoric meanings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	560	Archaeology of the Social Realm.	Applies social theory to archaeological study of societies of the past. Includes practice theory, hierarchy, space and place, material culture.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	563	Hunter-Gatherer Adaptations	Evolution of prehistoric hunter-gatherer societies in the Old and New Worlds from the most ancient times through protohistoric chiefdoms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	567	Southwestern Archaeology	Broad coverage of Southwestern cultural developments focusing on current debates and rigorous use of archaeological data in making cultural inferences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	568	Intrasite Research Strategies	Research issues within a single site context. Topics include quantitative spatial analysis, site definition, sampling, distributional analysis, and substantive interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		

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ASB	570	Immigration to the U.S.	Covers some of the major topics and issues in immigration studies with a focus on the United States. Uses both theoretical works dealing with the causes and consequences of international migration and ethnographic accounts of actual immigrant lives. Broadly interdisciplinary and incorporates perspectives from sociology, political science, economics, and other fields; emphasizes anthropological approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	571	Museum Principles	History, philosophy, and current status of museums. Explores collecting, preservation, exhibition, education, and research activities in different types of museums.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	572	Museum Collection Management	Principles and practices of acquisition, documentation, care, and use of museum collections; registration, cataloging, and preservation methods; legal and ethical issues. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	573	Museum Administration	Formal organization and management of museums, governance, personnel matters, fund raising and grantsmanship, legal and ethical issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	574	Exhibition Planning and Design	Exhibition philosophies and development; processes of planning, designing, staging, installing, evaluating, and disassembling temporary and long-term exhibits.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	575	Computers and Museums	Basics of museum computer application; hardware and software; fundamentals of database management; issues of research, collections management, and administration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	576	Museum Interpretation	Processes of planning, implementing, documenting, and evaluating educational programs in museums for varied audience--children, adults, and special interest groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	577	Principles of Conservation	Preservation of museum objects: nature of materials, environmental controls, and causes of degradation; recognizing problems, damage, and solutions; proper care of objects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	579	Critical Issues in Museum Studies	Current debates of museum practice from an anthropological perspective. Addresses issues of collection, presentation, authenticity, and authority.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		

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ASB	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASB	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(HU or SB) & G	
ASB	311-W	Principles of Social Anthropology	Comparative analysis of domestic groups and economic and political organizations in primitive and peasant societies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G & H	
ASB	319-W	Indigenous Peoples of North America	Ethnology of the range of Native North American Indian cultural history. Comparative analysis of historical and contemporary issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
ASB	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASB	340	Migration and Culture	Examines migration and culture embedded in a transnational field of social, economic, and political processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	346	Marriage and Family Diversity	Social, economic, and cultural factors that shape family diversity in relation to generational and gender dynamics within the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	350-W	Anthropology and Art	Art forms of people in relationship to their social and cultural setting.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(HU or SB) & G	
ASB	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
ASB	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
ASB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
ASB	440	Women in the Global Factory	Examines the impact of Third World women's incorporation into the new global division of labor in the late 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	441	Sexuality and Culture	Uses a global, comparative approach to examine the cultural and historical construction of sexualities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	442	Urban Anthropology	Issues in understanding urban culture and social space from interdisciplinary anthropological perspective. May involve fieldwork. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
ASB	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	447	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	493	Honors Thesis	Honors Thesis	N	RSC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
ASB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
ASB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
ASB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
ASB	202	Ethnic Relations/U.S.	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
ASB	222	Buried Cities and Lost Tribes	Archaeology through its most important discoveries: human origins, Pompeii, King Tut, the Holy Land, Southwest Indians, and methods of field archaeology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
ASB	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
ASB	321	Indians of the Southwest	Cultures of the contemporary Indians of the southwestern United States and their historic antecedents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H & C	
ASB	335	Prehistory /Southwest	Anthropological understandings of major cultural processes and events in the prehistory of the American Southwest using evidence from archaeology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	(HU or SB) & G	
ASC	301	Contextual Uses of Algebra in Technology	Uses algebra to solve real-world technological problems using currently available computer software.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-requisites: Polytechnic BAS student
ASC	302	Contextual Uses of Geometry in Technology	Uses geometrical concepts to solve real-world technological problems using currently available computer software.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ASC	303	Contextual Uses of Trigonometry in Technology	Topics for close examination in selected dramatic and/or nondramatic works. May be repeated for credit when topics vary.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ASC	315	Numeracy in Technology	Contextual uses of mathematics in applied sciences. Emphasizes using mathematical methodologies to solve technology-related problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	
ASC	325	Physical Sciences in Technology	Physical systems and their interrelationships on technology systems. Real-world applications of physical systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
ASC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ASC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ASC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ASE	549	Stat Applicatns Engr		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Arizona State University	3.		
ASE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		Pre-requisites: Must be a non degree undergraduate student with less than or equal to 25 total earned hours
ASE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
ASE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
ASE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6	L	Pre-requisites: Must be an Honors student
ASE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-7		

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ASE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		
ASE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
ASE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
ASE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASM	104	Bones, Stones, and Human Evolution	Physical anthropology and archaeology. Evidence and processes of human evolution and of culture change. Primates. Fossil hominids and their tools. Race, variation, and heredity. Environment and human biology. Prehistoric culture and society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SB or SG	
ASM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ASM	246	Human Origins	History of discoveries and changing interpretations of human evolution. Earliest ancestors to emergence of modern humans. Humanity's place in nature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	275	Forensic Anthropology	Discusses the role of the forensic anthropologist in medico-legal investigations involving skeletonized human remains. Includes forensic recovery techniques, identification of decedents through skeletal and dental analysis, and reconstructing the crime scene through analysis of trauma patterns. Covers the legal aspects of forensic practice and considers historical case studies and the contributions forensic anthropologists make to mass disaster investigations and human rights abuses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
ASM	301	Peopling of the World	Reviews all evidence for human dispersal during the last 100,000 years, origins of language, cultures, races, and beginnings of modern humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites:ASM 104 with a grade of D or better
ASM	332	Life and Death in Ancient Egypt	Reveals ancient Egyptian life through recent research in archaeology and physical anthropology on cemeteries, tombs, and the dead themselves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: ASB 222
ASM	338	Anthropological Field Session	Anthropological field techniques, analysis of data, and preparation of field reports. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	2-8		
ASM	341	Human Osteology	Osteology, human paleontology, and osteometry. Description and analysis of archaeological and contemporary human populations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASM 104
ASM	342	Human Biological Variation	Evolutionary interpretations of biological variation in living human populations, with emphasis on anthropological genetics and adaptation. Nutrition and disease and their relation to genetics and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	
ASM	343	Primatology	Evolution and adaptations of nonhuman primates, emphasizing social behavior. Includes material from fossil evidence and field and lab studies in behavior and biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104 with a D or better
ASM	344	Fossil Hominids	The fossil evidence for human evolution, emphasizing the concepts and methods for reconstructing the past.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	H	Pre-requisites:ASM 104 with a grade of D or better
ASM	345	Disease and Human Evolution	Interaction of people and pathogens from prehistoric times to the present, with emphasis on disease as an agent of genetic selection.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104, or BIO 100, or BIO 187, or BIO 188, with a D or better
ASM	348	Social Issues in Human Genetics	Moral and social implications of developments in genetic science, particularly as they affect reproduction, medicine, and evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASM	365	Laboratory Methods in Archaeology	Techniques of artifact analysis. Basic archaeological research techniques; methods of report writing. May be repeated for credit for total of 8 hours.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASM 104 with a D or better

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ASM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	401	Health and Human Biology	Health and biology in contexts of human evolutionary history, biological and cultural variation, lab-based health status assessments, core concepts of human variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASB 100 (or SSH 100) and ASM 104 with a D or better
ASM	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: Students who have credit for SSH 414, or SOS 414, may not enroll in ASM 414; Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
ASM	424	Dynamic Modeling in Social and Ecological Systems	Introduces the development and use of dynamic mathematical models to study social and ecological phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better; Students who have credit in SOS 424 or BIO 424, may not enroll in ASM 424
ASM	435	Archaeological Pollen Analysis	Theory, methodology, and practice of pollen analytic techniques. Compares uses in botany, geology, and archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	446	Principles of Human Genetics	Molecular and cellular analysis of the human genome.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	Pre-requisites:Completed BIO 340 or ASM 301 with a C or better; If you have credit in ASM 446, you may not enroll in BIO 446
ASM	448	Geoarchaeology	Geologic context relevant to archaeological research. Topics include sediments, deposition environments, soils, anthropogenic and biogenic deposits, and quaternary chronology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASB 222 (or 223), or GLG 101 (or 103), or GPH 111, with a grade of D or better
ASM	450	Bioarchaeology	Surveys archaeological and physical anthropological methods and theories for evaluating skeletal and burial remains to reconstruct biocultural adaptation and lifeways.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: ASM 104
ASM	452	Dental Anthropology	Human and primate dental morphology, growth, evolution, and genetics. Within- and between-group variation. Dental pathology and behavioral-cultural-dietary factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	Pre-requisites: ASM 104 with a D or better
ASM	454	Comparative Primate Anatomy	Functional anatomy of the cranial, dental, and locomotor apparatus of primates, including humans, emphasizing the relation of morphology to behavior and environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ASM	455	Primate Behavior Laboratory	Instruction and practice in methods of observation and analysis of primate behavior. Discusses the relationship between class work on captive animals and field techniques for studying free-ranging groups.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	Pre-requisites:ASM 343 with a grade of D or better
ASM	456	Infectious Disease and Human Evolution	Study of infectious disease and humanity, using evidence from anthropology, history, medicine, and ancient skeletons.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 345 with D or better
ASM	459	Forensic Anthropology	Applies anthropology, primarily human osteology, to legal questions, including individual identification, crime scenes, forensic reports, police work, and court testimony.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	460	Human Growth and Development: An Evolutionary Perspective	How growth and development influences human variation; stages of human life; evolution through the fossil record; genetic, environmental, and biocultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104 with C or better; ASM 341, ASM 342, ASM 344, ASM 345 or ASM 348
ASM	465	Quantification and Analysis for Anthropologists	Statistical and quantitative strategies for envisioning and exploring archaeological, physical anthropological, bioarchaeological, and socialcultural data. Univariate and bivariate methods. A basic understanding of algebra is necessary to be successful in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	CS	
ASM	472	Archaeological Ceramics	Analysis and identification of pottery wares, types, and varieties. Systems for ceramic classification and cultural interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Must be an Honors student
ASM	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6	L	Pre-requisites: Must be an Honors student
ASM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		Pre-requisites: Must be an Honors student
ASM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
ASM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	525	Primate Paleobiology	Seminar-based survey of primate evolution, focusing on comparative biology of the extant primates and the fossil record through the Miocene.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	530	Paleoanthropology	Seminar-based in-depth study of the fossil record of human evolution and its geological, environmental, and phylogenetic contexts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	543	Primateology	Advanced study of nonhuman primate behavioral adaptations, emphasizing comparative sociality, incorporating data on behavior and biology from field and captivity.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	546	Principles of Human Genetics	Examines human molecular genetics from an evolutionary perspective, particularly analysis, current debates, the Human Genome Project, disease, ethics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	548	Geoarchaeology	Geologic context relevant to archaeological research. Topics include sediments, deposition environments, soils, anthropogenic and biogenic deposits, and quaternary chronology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	555	Advanced Human Osteology	Lab and field techniques in dealing with the human skeleton. Emphasizes preparation, identification, radiography, sectioning, microscopy, and data processing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	559	Forensic Anthropology	Applies anthropology, primarily human osteology, to legal questions, including individual identification, crime scenes, forensic reports, police work, and court testimony.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	560	Human Growth and Development: An Evolutionary Perspective	How growth and development influences human variation; stages of human life; evolution through the fossil record; genetic, environmental, and biocultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	565	Quantitative Archaeology	Formal methods of structuring, codifying, and analyzing data for archaeological problems. Designing research to yield data amenable to productive analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	566	Advanced Topics in Quantitative Archaeology	Archaeological issues associated with quantitative analysis, e.g., Bayesian and Monte Carlo approaches, simulation, diversity. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 565 with a D or better. Graduate student only
ASM	568	GIS and Spatial Technologies in Anthropological Research	In-depth survey of spatial technologies in anthropological research, including GIS, spatial modeling, remote sensing, and image analysis and classification.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	573	Lithic Analysis	Analysis and interpretation of chipped stone artifacts. Focus on both techniques and underlying concepts and their application to real collections.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	579	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	611	Paleopathology	Explores patterns of disease manifested in the human skeleton and differential diagnosis of infectious, metabolic, neoplastic, congenital, and other conditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); ASM 555
ASM	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AST	111	Introduction to Solar Systems Astronomy	History, properties of light, instruments, study of solar system and nearby stars. For nonscience majors. Optional lab (AST 113). Both AST 111 and AST 113 or AST 114 must be taken to secure SQ general studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	112	Introduction to Stars, Galaxies, and Cosmology	Structure and evolution of stars, star clusters, galaxies, cosmology. For nonscience majors. Optional lab (AST 114). Both AST 112 and AST 113 or AST 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	113	Astronomy Laboratory I	Astronomical observations and experiments designed to help the student become familiar with the sky, telescopes, and astronomical measurements. Both AST 111 and 113 or AST 113 and 321 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	Pre/Co-requisite: AST 111 or AST 321
AST	114	Astronomy Laboratory II	Similar to AST 113, but material chosen to supplement AST 112 and 322. Fee. Both AST 112 and 114 or AST 114 and 322 must be taken to secure SQ General Studies credit	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	
AST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
AST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
AST	321	Introduction to Planetary and Stellar Astrophysics	Physical laws; celestial mechanics; properties of planets, the sun, and other stars; formation and evolution of stars and planetary systems. Both AST 113 and 321 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	322	Introduction to Galactic and Extragalactic Astrophysics	Evolved stars, introduction to relativity, galaxies and interstellar matter, structure and dynamics of galaxies, cosmology. Both AST 114 and 322 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	421	Astrophysics I	Selected astrophysical topics, including stellar evolution, star formation, interstellar medium, galactic structure, extragalactic astronomy, high-energy astrophysics, and cosmology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	422	Astrophysics II	Same range of astrophysical topics as for AST 421 but emphasizes different specific topics in a given year.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	492	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		Pre-requisites: Must be an Honors student
AST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6	L	Pre-requisites: Must be an Honors student
AST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
AST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-7		
AST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
AST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	521	Stars and Interstellar Medium I	Radiative transfer, atomic and molecular properties, stellar atmospheres, line profiles, nonlocal thermodynamic equilibrium, interstellar gas and dust, star formation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	522	Stars and Interstellar Medium II	Stellar structure, radiative transport, boundary conditions, equations of state, nuclear reactions, opacity, nucleosynthesis, chemical evolution of the galaxy, stellar evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	523	Stars and Interstellar Medium III	Structure of the interstellar medium, gaseous nebulae, recombination theory, ionization fronts and shock waves, galactic magnetic fields, magnetohydrodynamics, molecular clouds.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	531	Galaxies and Cosmology I	Structure and evolution of the Milky Way, stellar properties, populations and associations/clusters, interstellar medium, dark matter.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	532-M	Galaxies and Cosmology II	Structure of galaxies and the nearby universe, Hubble sequence, kappa-space, stellar populations, active galaxies, galaxy environments.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AST	533	Galaxies and Cosmology III	Issues in modern cosmology, the distance scale, cosmological parameters, cosmological tests, cosmic background radiation, early universe, galaxy formation and evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	591-M	Seminar		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
AST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
AST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
AST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
AST	111	Introduction to Solar Systems Astronomy	History, properties of light, instruments, study of solar system and nearby stars. For nonscience majors. Optional lab (AST 113). Both AST 111 and AST 113 or AST 114 must be taken to secure SQ general studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	
AST	112	Introduction to Stars, Galaxies, and Cosmology	Structure and evolution of stars, star clusters, galaxies, cosmology. For nonscience majors. Optional lab (AST 114). Both AST 112 and AST 113 or AST 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AST	113	Astronomy Laboratory I	Astronomical observations and experiments designed to help the student become familiar with the sky, telescopes, and astronomical measurements. Both AST 111 and 113 or AST 113 and 321 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre/Co-requisite: AST 111 or AST 321
AST	114	Astronomy Laboratory II	Similar to AST 113, but material chosen to supplement AST 112 and 322. Fee. Both AST 112 and 114 or AST 114 and 322 must be taken to secure SQ General Studies credit	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre- or Co-requisites: AST 112 or AST 322 (with or better if completed)
AST	301	Discovering the Sun and Its Planets	Comprehensive course in astronomy for non-science majors. Course will include lectures, written assignments, and hands-on work. Not open to students with credit in AST 111 (available at the Tempe campus) or its equivalent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
AST	302	Modern Astronomy	Comprehensive course in astronomy for non-science majors. Covers achievements and controversies of 20th century astronomy through lectures, written assignments, and hands-on work. Not open to students with credit in AST 112 (available at Tempe campus) or its equivalent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
AST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
AST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
AST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
AST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
ASU	101-HNR	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1.		Pre-requisite: Barrett Honors student
ASU	101-CPP	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	College of Public Programs	College of Public Programs	1.		Pre-requisite: College of Public Programs student
ASU	101-CTI	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	College of Tech & Innovation	Dean, College of Technology and Innovation	1.		Prerequisite(s): College of Technology and Innovation student
ASU	101-CS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		Pre-requisite: Cronkite School of Journalism and Mass Communication student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASU	101-COD	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		Pre-requisite: Herberger Institute of Design and the Arts student
ASU	101-HCA	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		Pre-requisites: Herberger Institute of Design and the Arts students only
ASU	101-FSE	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		Pre-requisite: Fulton School of Engineering student
ASU	101-LA	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1.		Pre-requisite: College of Liberal Arts & Sciences student
ASU	101-NCIAS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	New College of Interdisciplinary Arts and Sciences	1.		Pre-requisite: New College of Interdisciplinary Arts & Sciences student
ASU	101-NU	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Nursing & Healthcare Innovation students only
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		
ASU	101	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		
ASU	101-SAAS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	1.		Pre-requisite: School of Applied Arts & Sciences student
ASU	101-SOS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	1.		Pre-requisite: School of Sustainability student
ASU	101-ED	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: College of Teacher Education and Leadership undergraduate student
ASU	101-EI	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: College of Teacher Education and Leadership undergraduate student
ASU	101-TE	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Teacher Education and Leadership student
ASU	101-UC	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	University College	Dean, University College	1.		Pre-requisite: University College student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASU	101-WPC	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	1.		Pre-requisite: W.P.Carey student
ASU	101-MO	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		Pre-requisite: W.P.Carey student
ATC	230	Fundamentals of Air Traffic Management	Introduces the manuals, procedures, maps, charts, and regulations used by air traffic controllers in the National Airspace System (NAS).	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ATC	331	Tower Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in ATC towers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	332	TRACON Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in FAA TRACONs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	333	En Route Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in FAA ATC En Route Centers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	431	Tower Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:completed ATC 331 with a grade for D or better or be currently enrolled
ATC	432	TRACON Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ATC	433	En Route Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Completed ATC 333 with a grade of D or better, or currently enrolled
ATC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ATE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ATE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ATE	361	Building Structures I	Introduces load distribution on structures. Static analysis of determinant beams, trusses, arches, and rigid frames. Computer applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisite: ADE 321
ATE	362	Building Structures II	Strength of materials. Stresses in beams and columns. Thermal effects on structures. Analysis, design, and detailing of wood structural systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ATE	451	Building Systems I	Principles of solar radiation, heat and moisture transfer, and environmental control systems as form influences. Energy-conscious design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: ADE 421
ATE	452	Building Systems II	Architectural design implications of heating, ventilation, and air conditioning systems. Principles of lighting, daylighting, and acoustics, and their applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: ATE 451 with C or better; Co-requisite: ADE 422
ATE	462	Building Structures II	Strength of materials. Stresses in beams and columns. Thermal effects on structures. Analysis, design, and detailing of wood structural systems. Lecture, lab.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: ATE 361with a C or better; Co-requisites: ADE 322
ATE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ATE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ATE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ATE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	521	Building Environmental Science	Scientific principles relating to comfort and environmental control. Heat and moisture transfer. Solar/natural energies for heating, cooling, and lighting.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	550	Passive Heating and Cooling	Theory, analysis, and application of passive and low-energy systems in order to maximize comfort and minimize energy consumption in buildings.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	553	Building Systems III	Design and integration of building systems, including mechanical, electrical, plumbing, security, communications, fire protection, and transportation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student; Co-requisite: ADE 521; ATE 563
ATE	556	Building Development	Comprehensive design development through the understanding and integration of building materials and systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: ADE 522 and APH 505
ATE	557	Construction Documents	Production of architectural working drawings; legal status, organization, layout, site survey plans, sections, elevations, details, schedules, and coordination.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	560	Building Energy Analysis	Computer simulation of building thermal behavior. Software review. Detailed study of selected simulation models using case study projects.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	562	Experimental Evaluation	Instrumentation, measurement and computational techniques for analysis of building components, and assessment of thermal and luminous performance. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	563	Building Structures III	Analysis, design, and detailing of steel buildings and frames. Lateral analysis of small rigid and braced frame systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student
ATE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	582	Environmental Control Systems	Heating, ventilation, and air-conditioning systems. Loads, psychrometrics, refrigeration cycle, air/water distribution, controls, energy performance standards, and utility rates.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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ATE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AVC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	301	Architectural Communication	Communication skills for architecture studios. Emphasis on graphics, drawing conventions, media, computer-aided design, design of presentations, and oral presentations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		
AVC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AVC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
AVC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AVC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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AVC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: CHM 231 with C or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with C or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-or Co-requisites: BCH 361 (with C or better if completed)
BCH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 231 with C or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with C or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-or Co-requisites: BCH 361 (with C or better if completed)
BCH	392	Introduction to Research Techniques	Instrumental methods and philosophy of research by actual participation in chemical research projects. May be repeated for total of 6 semester hours.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	461	General Biochemistry	Structure, chemistry, and metabolism of biomolecules and their role in the biochemical processes of living organisms. Credit is allowed for only BCH 461 or 361.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 234 or 334 with C or better; Co-requisites: CHM 341 or CHM 346
BCH	462	General Biochemistry	Continuation of BCH 461.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: BCH 461 with C or better
BCH	463	Biophysical Chemistry	Principles of physical chemistry as applied to biological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 341 or CHM 346 with C or better
BCH	464	Biophysical Chemistry Laboratory	Introduces physical methods in modern biochemistry.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		Pre-or Co-requisites: BCH 463 and BCH 467 (with a grade of C or better if completed)
BCH	465	Protein and Nucleic Acid Biochemistry	Structure and function of proteins and nucleic acids, including protein folding, enzymology, proteomics, DNA/RNA structure, replication, transcription, and genomics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: BCH 462 with a C or better
BCH	467	Analytical Biochemistry Laboratory	Quantitative analysis, separation and purification of biological molecules. Applies chemical and physical methods to the characterization of biological macromolecules.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	L	Pre/Co-requisite: BCH 462 with C or better if completed
BCH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
BCH	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BCH	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6	L	Pre-requisites: Must be an Honors student
BCH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-7		
BCH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	501	Current Topics in Biochemistry	May be repeated for credit.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
BCH	561	Advanced Topics in Biochemistry	Topics selected from emerging areas of biochemistry based primarily on current literature.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	564	Bionanotechnology	The use of biomolecules, bioelectronics, and biomedicine for applications in nanotechnology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	568	Molecular Mechanisms of Photosynthesis	Structure and function of photosynthetic complexes; mechanism of energy conversion in plants, bacteria, and model systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: CHM 231 with C or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with C or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.		Pre-or Co-requisites: BCH 361 (with C or better if completed)
BCS	101	Elementary Serbo-Croatian	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
BCS	102	Elementary Serbo-Croatian	See BCS 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 101 with a grade of D or better, or currently enrolled
BCS	201	Intermediate Serbo-Croatian	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 102 with a grade of D or better, or currently enrolled
BCS	202	Intermediate Serbo-Croatian	See BCS 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 202 with a grade of D or better or currently enrolled
BCS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
BCS	495	Serbo-Croatian for Heritage Speakers	Generates professional proficiency by developing communicative and written competency in standard literary Serbo-Croatian.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		

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BDE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
BDE	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Graduate College	Graduate College	1-12		
BDE	701	Fundamentals of Biological Design I	Training in the essentials of fields underlying interdisciplinary research in the biosciences and in the integration of multiple disciplines in use-inspired research. Modules concentrate on key concepts and current questions in the biological sciences, physical sciences, and engineering.	N	LEC	N	OPT	Graduate College	Graduate College	9.		
BDE	702	Fundamentals of Biological Design II	Emphasizes the integrative areas of computational bioinformatics, systems biology, and synthetic biology, and their application in biomedical research.	N	LEC	N	OPT	Graduate College	Graduate College	3.		
BDE	721	Integrative Research	Develops comprehensive solutions to societal problems by small interdisciplinary teams of students, including a proposal for research in an integrated science area. Covers issues of intellectual property, commercialization, societal impact and value, project management, product design, and historical examples of disruptive technological innovations.	N	LEC	N	OPT	Graduate College	Graduate College	3.		
BDE	722	Research Design	Writing and presentation of a research proposal in the form of a grant application, peer review sessions to provide feedback, examination of the grant review and funding process.	N	LEC	N	OPT	Graduate College	Graduate College	3.		
BDE	751	Teaching in Science	Guidance in teaching and exposition through assisting a faculty teaching mentor in the Biological Design core course and training in oral presentation skills, including instruction in how to effectively present posters and seminars and participation in outreach experiences in the community.	Y	LEC	Y	OPT	Graduate College	Graduate College	1.		
BDE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Graduate College	Graduate College	1-12		
BDE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
BDE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-15		
BDE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Graduate College	Graduate College	1-15		
BE	333	Issues in Teaching		Y	LEC	Y	CNV	Institute & Grad Sch Education	Dean, W.P. Carey School of Business	3.		
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
BIO	201	Human Anatomy and Physiology I	Studies the structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
BIO	202	Human Anatomy and Physiology II	Studies the structure and function of the human body. Topics include cardiovascular, respiratory, lymphatic/immune, endocrine, renal, digestive, and reproductive systems. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
BIO	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	340	General Genetics	Science of heredity and variation.	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		Pre-requisites:with a C or better:BIO 187 (or MBB 245, or both PLB 200 and PLB 201) and BIO 188(or MBB 247)

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BIO	351	Developmental Biology	Principles of developmental biology, including the development of major organ systems and their underlying molecular and cellular mechanisms. Illustrated mainly using vertebrate examples.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: BIO 187 and BIO 188 completed with a D or greater or currently enrolled
BIO	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	360	Animal Physiology	Principles and mechanisms of physiological regulation in animals, with a focus on humans.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	480	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	482	Advanced Methods of Teaching Biology	Design, delivery, and evaluation of student-centered, inquiry-based lessons for high school biology students. Learning cycle.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: BIO 480 with C or better
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	189	Life Sciences Career Paths	Overview of modern life sciences, including research trends, extracurricular opportunities, degree programs, and potential careers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
BIO	193	The Nature of Biological Science	Creative and critical thinking skills in biological research; nature of biological knowledge; role of experimentation, predictions, hypotheses, theories, values. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	201	Human Anatomy and Physiology I	Studies the structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SG	
BIO	202	Human Anatomy and Physiology II	Studies the structure and function of the human body. Topics include cardiovascular, respiratory, lymphatic/immune, endocrine, renal, digestive, and reproductive systems. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 201 with a grade of D or better
BIO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	300	Natural History of Arizona	Plant and animal communities of Arizona. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	301	Field Natural History	Organisms and their natural environment. Cannot be used for major credit in the biological sciences. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	302	Cancer and Heart Disease	Incidence and mortality statistics for cancer and heart disease; host and environmental risk factors; diagnosis, treatment and prevention strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisite: BIO 188 with a C or better
BIO	303	Radiation and Life	Benefits and risks of radiation exposure in society; medical applications, food irradiation, nuclear power, solar UV, population health effects. Cannot be counted toward a biology major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisite: BIO 188 with C or better
BIO	304	Radiation Medicine and Biology	Uses of radiation in medicine, including CT, diagnostic x rays, MRI, nuclear medicine, ultrasound; biological effects of radiation with emphasis on cancer.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 188 with a grade of C or better
BIO	310	Special Problems and Techniques	Qualified undergraduates may investigate a specific biological problem under the direction of a faculty member. May be repeated for a total of 6 semester hours.	N	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		
BIO	311	Biology and Society	Explores interactions between biological sciences and society, e.g., biomedical, environmental, ethical, historical, legal, philosophical, political, and social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: with a C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188. Students with credit for HPS 340, may not enroll in BIO 311
BIO	312	Bioethics	Critical examination of moral questions arising in biomedical contexts, particularly due to new technologies and scientific discoveries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	
BIO	314	Research Colloquium in Biology and Society I	Develops critical thinking abilities, research methods, and writing skills for research in the interactions between biological sciences and society. Both BIO 314 & 414 must be taken to secure L General Studies designation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: BS Biology and Society Concentration majors; a C or better in BIO 187 (or both PLB 200 and PLB 201) and BIO 188

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BIO	316	History of Biology: Conflicts and Controversies	Focuses on 19th and 20th centuries, considering biology as a discipline. Evolution, problems of heredity, development, and cell theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
BIO	318	History of Medicine	Scientific study of the human body, changing theories of disease, evolution of practical opinions on treatment, and the emerging institutionalization of medical practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
BIO	319	Environmental Science (Nonmajor)	Environmental and biological concepts used to understand ecological systems with specific references to problems caused by humans. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	G	
BIO	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:with a grade of C or better:BIO 187 (or both PBL 200 and PLB 201) and BIO 188
BIO	321	Introductory Ecology Laboratory	Lab and field observations and experiments to test current concepts and theories in ecology.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre/Co-requisites: BIO 320 with C or better if completed
BIO	322	Conservation Biology and Ecological Sustainability I	Species-level approaches to the protection, management, and restoration of biological resources from scientific and policy perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: A grade of C or better:BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	323	Conservation Biology and Ecological Sustainability II	Ecosystem-level approaches to the protection, management, and restoration of biota and ecosystem processes from local to global scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: A grade of C or better:BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	324	Environmental Ethics	Examines a full range of philosophical positions pertaining to our moral relationship to the natural world; anthropocentrism, individualism, biocentrism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	
BIO	325	Oceanography	Introduces marine geology, chemistry, and physical and biological oceanography. Methods of oceanic exploration, environmental and social aspects of oceans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: CHM 101 or CHM 113 with C or better; BIO 100, BIO 187 or GLG 101 with C or better; If you have credit in GLG 325, you may not enroll in BIO 325
BIO	331	Animal Behavior	Evolutionary, genetic, physiological, and ecological bases of animal behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and 188 with "C" or better
BIO	340	General Genetics	Science of heredity and variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites:with a C or better:BIO 187 (or MBB 245, or both PLB 200 and PLB 201) and BIO 188(or MBB 247)
BIO	341	Genetic Analysis	General genetics: science of heredity and variation using critical inquiry. Not open to students with credit in BIO 340.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	5.		Pre-requisites: C or better:BIO 187 (or MBB 245, or both PLB 200 and PLB 201) and BIO 188(or MBB 247); not open to students with credit in BIO 340
BIO	342	General Genetics Laboratory	Explores general principles of inheritance with special reference to Mendelian, molecular, and computational genetics via lab experiments.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites:BIO 340 or BIO 341 with a D grade or better, or be co-enrolled in either BIO 340 or BIO 341
BIO	343	Genetic Engineering and Society	Introduces genetic engineering, with emphasis on applications (transgenic plants and animals, cloning, vaccines, therapeutics, and diagnostics). Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: MBB 247 or BIO 340 with a C or better; Students who have credit for BIO 343, may not enroll in MBB 343
BIO	344	Origins, Evolution, and Creation	History of opposition to evolutionary thinking with special reference to American creationism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	345	Organic Evolution	Processes of adaptive change and speciation in sexual populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) and BIO 188 with C or better
BIO	346	The Darwinian Revolution	Origin, nature, and subsequent history of the ideas of Charles Darwin.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	351	Developmental Biology	Principles of developmental biology, including the development of major organ systems and their underlying molecular and cellular mechanisms. Illustrated mainly using vertebrate examples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:BIO 187 and BIO 188 completed with a D or greater or currently enrolled
BIO	352	Laboratory in Vertebrate Developmental Anatomy	Morphology of representative embryonic and adult vertebrates. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites:BIO 187 and BIO 188 with a C grade or better
BIO	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: C grade or better in: BIO 187 (or MBB 245 or both PLB 200 & PLB 201) and BIO 188 (or MBB 247)
BIO	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, or MAT 270 with C or better; Students with credit for MBB 355 or MAT 355 may not enroll in BIO 355
BIO	360	Animal Physiology	Principles and mechanisms of physiological regulation in animals, with a focus on humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:BIO 187 and BIO 188 with a C grade or better
BIO	361	Animal Physiology Laboratory	Experimental lab studies of physiological mechanisms in animals and model systems. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: BIO 360 (with C or better if completed)
BIO	370	Vertebrate Zoology	Characteristics, classification, evolution, and natural history of the major groups of vertebrate animals. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a grade of C or better
BIO	385	Comparative Invertebrate Zoology	Characteristics, life cycles, adaptations, and evolution of invertebrate animals. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	386	General Entomology	Form, activities, and classification of insects. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a grade of C or better
BIO	390	Medical/Dental Field Placement	Field placement for students exploring a career in a health profession. Requires classroom sessions and fieldwork.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	402	Service Learning	Provides academic enrichment and mentoring to economically disadvantaged children; related to course work in biology; requires weekly reflective reading and writing.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	
BIO	406	Computer Applications in Biology	Computer analysis techniques in biology emphasizing data entry, management and analysis, and graphic portrayal. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: C or better in:BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	410	Techniques in Wildlife Conservation Biology	Field and analytical techniques used to evaluate wildlife populations, their structure, viability, and environmental impacts. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 320, BIO 322, and BIO 323 with C or better

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BIO	411	Quantitative Conservation Biology	Principles of conservation science; demography and extinction risk; practical approaches to conserving small, declining, and exploited populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320, BIO 322 and BIO 323 with "C" or better
BIO	412	Conservation in Practice	Global biodiversity patterns, processes, and conservation; global environmental change; sustainable use of natural resources; emphasizing international approaches to conservation biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 322 and BIO 323 with C or better
BIO	414	Research Colloquium in Biology and Society II	Further develops critical thinking abilities, research methods, and writing skills for research in the interactions between biological sciences and society. Both BIO 314 & 414 must be taken to secure L General Studies designation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	Pre-requisites: BIO 314 with C or better
BIO	415	Biometry	Statistical methods applied to biological problems, design of experiments, estimation, significance, analysis of variance, regression, correlation, chi square, and bioassay; the use of computers. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	CS	Pre-requisites: Must have completed one of the following courses with a grade of C or better: MAT 210, 251, 265, or 270
BIO	416	Professional Values in Science	Considers issues related to values in science such as collaboration, finances, legal issues, media, mentoring, ownership of ideas, scientific integrity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: Grade of C or better in: BIO 187 (or both PLB 200 & PLB 201) and BIO 188. Students who have credit for HPS 410, may not enroll in BIO 416
BIO	417	Experimental Design	Fixed, random, mixed models; crossed and nested factorial designs; balanced and unbalanced data; completely randomized, blocked, repeated measure designs; ANCOVA.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 415 with C or better
BIO	421	Landscape Ecology	Discusses how landscape heterogeneity interacts with ecological processes, and implications for biodiversity conservation, resource management, and landscape and urban planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: You may not enroll in BIO 421 if you have credit for BIO 521; must have BIO 320 with a grade of C or better
BIO	423	Population and Community Ecology	Organization and dynamics of population and communities, emphasizing animals. Theoretical and empirical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with a C or better
BIO	424	Dynamic Modeling in Social and Ecological Systems	Introduces the development and use of dynamic mathematical models to study social and ecological phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better; Credit is allowed for only ASM, BIO or SOS 424
BIO	425	Animal Ecology	Physiological and behavioral adaptations of individual animals to both abiotic and biotic environments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with a grade of C or better
BIO	426	Limnology	Structure and function of aquatic ecosystems, with emphasis on freshwater lakes and streams. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: BIO 320 with C or better
BIO	427	Fire	A survey of fire on Earth--history, ecology, behavior, and management.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	Pre-requisites: A grade of C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	428	Biogeography	Environmental and historical processes determining distributional patterns of animals and plants, emphasizing terrestrial life.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 320 with C or better
BIO	431	Genes, Development, and Evolution	Contribution of genes, developmental processes, and evolution to pattern of phenotypic variation, including disease.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 187, and BIO 188 with a grade of C or better
BIO	435	Research Techniques in Animal Behavior	Experimental and field studies of animal behavior; description and quantification of animal behavior and interpretation of behavior within an evolutionary framework.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 331 with a grade of C or better
BIO	436	Sociobiology and Behavioral Ecology	Surveys animal and human social behavior examined from ecological and evolutionary perspectives using theoretical and empirical constructs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 331 with C or better
BIO	440	Functional Genomics	Covers emerging fields of genomics and proteomics. Discusses key technologies and their applications to the study of genomes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 340 with C or better; Credit only for MBB 440 or BIO 440
BIO	446	Principles of Human Genetics	Molecular and cellular analysis of the human genome.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: Completed BIO 340 or ASM 301 with a C or better; If you have credit in ASM 446, you may not enroll in BIO 446
BIO	450	Advanced Developmental Biology	Current concepts and experimental methods involving differentiation and biosynthetic activities of cells and organisms, with examples from microorganisms, plants, and animals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 351 with C or better
BIO	451	Cell Biotechnology Laboratory	Mammalian cell culture techniques, including mouse embryonic stem cells, the use of bioreactors, cell fractionation, and digital video imaging.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 353 (or MBB 245) with C or better; Students who have credit for BME 451, may not enroll in BIO 451
BIO	453	Animal Histology	Microscopic study of animal tissues. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: with a C or better: BIO 187 and 188
BIO	455	Introduction to Comparative Genomics	Explores genomic sequences and hypotheses for their structure, evolutionary history, and underlying mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	456	Bioinformatics and Molecular Evolution	Fundamental biological motivation and methods used in bioinformatics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 345 and 355 (or MBB 355, or MAT 355) with C or better
BIO	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: C grade or better in BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	461	Comparative Animal Physiology	A comparative approach to understanding the function of animal physiological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 360 with C or better
BIO	462	Endocrine Physiology	Mechanisms of action of hormones; endocrine control of homeostasis, growth, stress responses, and reproduction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 360 with C or better
BIO	464	Photobiology	Principles underlying the effects of light on growth, development, and behavior of plants, animals, and microorganisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better; Students who have credit in PLB 440, may not enroll in BIO 464
BIO	465	Neurophysiology	Detailed treatment of cellular and organismal neurophysiology and nervous system function.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 360 with C or better

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BIO	466	Neurophysiology Laboratory	Intracellular and extracellular electrophysiological recording techniques, histological preparations, and dye-filling techniques.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: BIO 465 or BIO 467 (with C or better if completed)
BIO	467	Neurobiology	Introduces major areas of neurobiology, from fundamental cellular and molecular processes through systems neuroscience and neural bases of behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 360 with C or better
BIO	469	Computational Neuroscience: Case Studies in Neuroethology	Introduces the use of computational methods for understanding neural function at the cellular, circuit, and systems levels.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 360 with C or better
BIO	470	Systematic Zoology	Philosophy, theory, practice of interpreting animal diversity, including species concepts, speciation, nomenclature, and evolutionary and phylogenetic classification emphasizing phylogenetics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: C grade or better in BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	471	Ornithology	Biology of birds. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	472	Mammalogy	Classification, structure, habits, ecology, and distribution of mammals, emphasizing North American forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	473	Ichthyology	Systematics and biology of recent and extinct fishes. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	474	Herpetology	Interdisciplinary approach to the study of reptiles and amphibians. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	480	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: with a grade of C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	482	Advanced Methods of Teaching Biology	Design, delivery, and evaluation of student-centered, inquiry-based lessons for high school biology students. Learning cycle.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 480 with C or better
BIO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	490	Surgical Field Placement	Advanced field placement for students exploring a career in a health profession. Requires classroom sessions and fieldwork.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 390 with C or better
BIO	492	Honors Directed Study		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		
BIO	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
BIO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	495	Undergraduate Thesis	Guided research culminating in the preparation of an undergraduate thesis based on supervised research done in this and previous semesters.	N	THE	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
BIO	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
BIO	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
BIO	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	502	Transmission Electron Microscopy	Theory, use, and methods of preparing biological materials for transmission electron microscopy. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	505	Scanning Electron Microscopy	Theory, use, and methods of preparing biological materials for scanning electron microscopy. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	508	Scientific Data Presentation	Techniques necessary for presentation of scientific data used in journal publications, grant proposals, and visual presentations. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	515	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Credit is allowed for only BIO 515, GLG 547, PAF 547 or SOS 516
BIO	516	Foundations of Bioethics	Advanced introduction to the theoretical and normative foundations of the field of bioethics. May be repeated for credit.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	520	Biology of the Desert	Factors affecting plant and animal life in the desert regions and adaptations of the organisms to these factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	521	Landscape Ecology	Discusses how landscape heterogeneity interacts with ecological processes, and implications for biodiversity conservation, resource management, and landscape and urban planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		You may not enroll in BIO 521 if you have credit for BIO 421
BIO	522	Populations: Evolutionary Ecology	Principles of population biology and community ecology within an evolutionary framework.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	524	Ecosystems	Structure and function of terrestrial and aquatic ecosystems, with emphasis on productivity, energetics, biogeochemical cycling, and systems integration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	525	Microclimate Methods	Techniques to measure and quantify microclimate and mass transfer. Supporting principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	526	Quantitative Ecology	Sampling strategies, spatial pattern analysis, species diversity, classification, and applications of multivariate techniques to ecology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		

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BIO	529	Advanced Limnology	Recent literature, developments, methods, and limnological theory; field and lab application to some particular topic in limnology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	543	Molecular Genetics	Nature and function of the gene; emphasis on the molecular basis of inheritance and gene expression in prokaryotes and eukaryotes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	545	Populations: Evolutionary Genetics	Mathematical models in the description and analysis of the genetics of populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	546	Principles of Human Genetics	Examines human molecular genetics from an evolutionary perspective, particularly analysis, current debates, the Human Genome Project, disease, ethics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	547	Techniques in Evolutionary Genetics	Practical experience in modern techniques for the study of evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	550	Advanced Cell Biology	Applies contemporary electron microscopic and biochemical/molecular techniques for studying eukaryotic cell functions. Mechanisms of intracellular protein trafficking.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	551	Biomembranes	Structure and function of biological membranes, emphasizing synthesis, fluidity, exocytosis, endocytosis, and cell responses to hormones and neurotransmitters.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	552	Developmental Genetics	Genetic approaches to the analysis of development during the life cycle of eukaryotic organisms, and the role of genes in the unfolding of the differentiated phenotype.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	561	Comparative Animal Physiology	A comparative approach to understanding the function of animal physiological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	563	Environmental Physiology	Physiological responses and adaptations of animals to various aspects of the physical environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	564	Cellular Physiology and Signaling	Emphasizes the molecular basis for cell structure, function and intercellular signaling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		

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BIO	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
BIO	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	Pre-requisites: BIO 187 with of C or greater or be currently enrolled
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	201	Human Anatomy and Physiology I	Studies the structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	202	Human Anatomy and Physiology II	Studies the structure and function of the human body. Topics include cardiovascular, respiratory, lymphatic/immune, endocrine, renal, digestive, and reproductive systems. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		
BIO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	301	Foundations of Interdisciplinary Studies	Introduces concepts and methods of interdisciplinary study by critically examining anticipated 21st-century workplace and civic trends.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; Activation of BIS eligibility student group by a BIS advisor
BIS	301	Foundations of Interdisciplinary Studies	Introduces concepts and methods of interdisciplinary study by critically examining anticipated 21st-century workplace and civic trends.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; Activation of BIS eligibility student group by a BIS advisor
BIS	302	Interdisciplinary Inquiry	Explores interdisciplinarity and integration as applied to various approaches of human inquiry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; BIS 301 with a grade of C or better
BIS	302	Interdisciplinary Inquiry	Explores interdisciplinarity and integration as applied to various approaches of human inquiry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; BIS 301 with a grade of C or better
BIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	401	Applied Interdisciplinary Studies	Applies interdisciplinary problem-solving skills in internships, service-learning, or research; may involve individual or group projects combining both concentrations.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	401	Applied Interdisciplinary Studies	Applies interdisciplinary problem-solving skills in internships, service-learning, or research; may involve individual or group projects combining both concentrations.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	402	Senior Seminar	Capstone course helps integrate classroom and experiential learning. Students choose among course topics that address their interests.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	402	Senior Seminar	Capstone course helps integrate classroom and experiential learning. Students choose among course topics that address their interests.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
BIS	493	Honors Thesis		N	THE	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
BIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	514	Bilingual/Multicult-Spec Educ	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	515	Instructional Methods for Bilingual Students	Introduces general dual language teaching approaches. Focuses on the effective teaching of limited English proficient populations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	521	Primary/Elementary Communication Arts in Bilingual Education	Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis)	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	524	Secondary Sheltered ESL Content Teaching	Teaching and assessing ESL adolescents in the content areas with an emphasis on integrating language acquisition principles with content learning.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	526	SEI for Elementary Schools	Prepares elementary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	527	SEI for Middle and Secondary Schools	Prepares middle and secondary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	528	Social Studies for Bilingual/ESL Teachers	Provides language and instructional methodologies and assessment strategies relevant to bilingual/multicultural students in social studies content delivered in Spanish and English.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	529	Language Assessment and Evaluation of ESL/BLE Students	Assessment and evaluation of linguistic minorities; test theory, score interpretation; culturally responsive assessment; assessment of language and school achievement.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	533	Literacy in Secondary BLE/ESL Settings	Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	537	Language Structure Aquisition	Introduces linguistics and language acquisition. Grammatical theory; language use in educational contexts; first, second, and simultaneous language acquisition.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Credit is allowed for only BLE 537 or LIN 510
BLE	541	Nature of Bilingualism/Second-Language Acquisition	Bilingual and second-language acquisition, with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	543	Bilingual Education Models	Bilingual education programs in other countries; analysis of political, social, economic, and educational implications; practice in planning bilingual education curricula. See also offerings under MCE, SED, SPE, and SPF.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	565	Literature for Latina and Latino Children and Adolescents	Selects, analyzes, and utilizes literature for Latino/a and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

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BLE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis)	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

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BLE	522-W	Literacy/Biliteracy Development	Examines approaches to first- and second-language reading and writing for bilingual/second-language learners from a whole language perspective (Spanish-English emphasis).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	527	SEI for Middle and Secondary Schools	Prepares middle and secondary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	541	Nature of Bilingualism/Second-Language Acquisition	Bilingual and second-language acquisition, with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	578	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
BLE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
BLE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
BLE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
BLE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BLE	220	Foundations of Structured English Immersion	Examines current educational practices and historical legal issues. Prepares teacher candidates with a provisional Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	220	Foundations of Structured English Immersion	Examines current educational practices and historical legal issues. Prepares teacher candidates with a provisional Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	312	ESL, Diversity, and Culture in Education	Examines social, historical, philosophical, and legal issues affecting racially, linguistically, culturally, and exceptionally diverse students in U.S. schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
BLE	312	ESL, Diversity, and Culture in Education	Examines social, historical, philosophical, and legal issues affecting racially, linguistically, culturally, and exceptionally diverse students in U.S. schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Co-requisites: Block 1 students, TEL 311, TEL 313, TEL 314, TEL 315 and TEL 396; Block 1B, TEL 315 and TEL 396; Block 2 ECT students, ECT 321, ECT 322, ECT 323, ECT 324 and ECT 397 OR Professional Development School students as appropriate
BLE	321	ESL Methods for Diverse Language Classrooms	Strategies and materials for second-language learning, including research on language acquisition/learning, practical applications of ESL methodologies, phonics.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood, ECT 411, ECT 412, ECT 413, ECT 414, ECT 496 OR Elementary Ed/ESL or Elementary Ed/BLE, BLE 322, BLE 324, EDP 323 and EED 397 OR Elem Ed, RDG 322, EDP 323, EED 324 and EED 397 OR PDS (Professional Development School)

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BLE	322	Second-Language Literacy 1 in Elementary Schools	Instructional/assessment strategies, including systematic, research-based phonics, vocabulary, comprehension, spelling, writing, phonemic writing in Spanish/English.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: BLE 321, BLE 324, EDP 323 and EED 397 or PDS (Professional Development School) student as appropriate
BLE	324	Social Studies for Diverse Language Classrooms	Social studies education standards, curriculum, and instructional strategies for English language learners.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: BLE 321, BLE 322, EDP 323 and EED 397 or PDS (Professional Development School) student as appropriate
BLE	335	Language Diversity in Classrooms	Issues in sociolinguistics and language variation in schools with a focus on classroom interaction, instruction, curriculum, assessment, and language policy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	335	Language Diversity in Classrooms	Issues in sociolinguistics and language variation in schools with a focus on classroom interaction, instruction, curriculum, assessment, and language policy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	396	Field Experience I	Applies course content in a bilingual/ESL school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
BLE	400	Principles of Language Minority Education	Overview of philosophical and theoretical foundations of bilingual education and ESL models of instruction. Other topics include significant legislative and judicial measures.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	407	SEI for Secondary Students	Examines foundations, assessment, English language learner proficiency standards, and strategies (including SEI) for the 7-12 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	408	SEI for Linguistically Diverse Learners	Examines foundations, assessment, English language learner proficiency standards, and strategies (including SEI) for the K-8 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	409	Methods in Language-Sensitive Content Teaching	Methods course for bilingual and ESL preservice students. Examines the rule of language and culture in teaching, program types, and general strategies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	409	Methods in Language-Sensitive Content Teaching	Methods course for bilingual and ESL preservice students. Examines the rule of language and culture in teaching, program types, and general strategies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Early Childhood Education student; GPA >=2.5
BLE	410	Lang Arts/Lit/Lang-Navajo/Eng	Provides foundational concepts for language and literacy development in bilingual (Navajo/English) K-8 settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		
BLE	413	Second-Language Literacy 2 in Elementary Schools	Literacy and language arts instruction; assessment of reading and writing; transition literacy skills, particularly critical reading of content.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 414, EED 411, EED 412, EED 496 OR PDS (Professional Development School) student
BLE	414	Reading Methods, Management, and Assessment in BLE/ESL Settings	Teaching and assessing reading with emphasis on integrated curriculum and literature-based instruction for BLE/ESL learners. Strategies for decoding (phonics), vocabulary, comprehension, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	414-W	Bilingual/ESL Curriculum and Organization	ESL curriculum content and organization, including program model effectiveness, language assessment and language usage, special needs and parent involvement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, EED 411, EED 412, EED 496 OR PDS (Professional Development School) student as appropriate
BLE	420	Science Methods, Management, and Assessment in BLE/ESL Settings	Methods, management strategies, and assessment procedures for teaching science to BLE/ESL students in elementary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	433	Language Arts Methods, Management, and Assessment in Elementary BLE/ESL Settings	Social nature of oral and written, first- and second-language acquisition and congruent teaching, management, assessment practices in BLE/ESL settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student with a GPA of at least 2.50; Must have completed BLE 408 (or BLE 409), BLE 420, MCE 447 and BLE 480 with a grade of C or greater or be currently enrolled; Co-requisites: BLE 414, 481, 496 and SPE 416
BLE	455	Social Studies Methods, Management, and Assessment in Elementary BLE/ESL Settings	Examines methods, classroom management strategies, and assessment techniques for social studies instruction in elementary BLE/ESL classes.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	470	Student Teaching Seminar	Concurrent course with the student teaching experience that provides support, content, and critical evaluation opportunities directly related to teaching practices.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
BLE	478	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
BLE	478-W	Student Teaching in Diverse Language Classrooms	Student teaching in diverse language classrooms. Focuses on use of English language learning and bilingual strategies; integrates all previous course work. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Co-requisites: BLE 479 OR PDS (Professional Development School) student
BLE	479	Capstone Seminar in Bilingual/ESL Education	Reflective, experience-based integration of theory and practice; professional development for bilingual/ESL teachers.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: BLE 478 OR PDS (Professional Development School) student
BLE	480	Mathematics Methods, Management, and Assessment in Elementary BLE/ESL Settings	Teaching, management, and assessment of mathematics in K-8 BLE/ESL settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
BLE	481	Reading Practicum	Applies concepts from BLE 414. Supervised school-based experiences in teaching reading to BLE/ESL students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student with a GPA of at least 2.50, Must have completed BLE 408, BLE409, BLE420, BLE480 and MCE447 with a grade of C or better or be currently enrolled; Co-requisites: BLE414, BLE433, BLE496 and SPE416

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BLE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
BLE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
BLE	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	496	Field Experience	Applies course content in a bilingual/ESL school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Initial Teacher Certification Program Admission
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BLE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BME	100	Introduction to Bioengineering	Introduces profession of bioengineering: bioengineering design process, teaming, computer models in bioengineering, communications skills, career planning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	2.		Pre-requisites: Bioengineering and Pre-Med Engineering student; Pre/Co-requisite: ENG 101, 105, or 107 with C or better
BME	111	Engineering Perspectives on Biological Systems	Biological concepts for the emerging engineer. Introduces biological and earth systems engineering, materials, structures, fluid mechanics, bioelectricity, and the dynamic, nonlinear nature of nature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisite: Engineering student
BME	112	Engineering Perspectives on Biological Systems Laboratory	Introduces biological concepts for the emerging engineer in a lab setting: biological and earth systems engineering, materials, structures, fluid mechanics, bioelectricity, and the dynamic, nonlinear nature of nature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		Pre-requisite: Engineering student
BME	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	200	Conservation Principles in Bioengineering	Applies bioengineering analysis and problem solving of mass, energy, and charge balances to medical and biological systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: CHM 114 or CHM 116 completed with C or better; PHY 131/132 with a C or better; BIO 188(or BME 111/112) with a C or better; Co-requisite:MAT 275
BME	202	Global Awareness within Biomedical Engineering Design	Introduces ethical, legal, social, economic, and technical issues arising from the design and implementation of bioengineering technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.	L or HU	Pre-requisites: Engineering students OR have a minimum cumulative GPA of 2.50; ENG 102, 105 or 108 completed with a grade of C or greater or be currently enrolled; ECN 111 or ECN 112 AND either ECE 100, 106 or 194 completed with a grade of D or greater
BME	235	Physiology for Engineers	Physiology of the nervous, muscular, cardiovascular, endocrine, renal, and respiratory systems. Emphasizes use of quantitative methods in understanding physiological systems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: BIO 188 or BME 111 and BME 112 with C or better, CHM 114 or CHM 116 with C or better. Pre or Co-requisite: PHY 131 and PHY 132.
BME	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6		

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BME	300	Bioengineering Product Design	The fundamentals of financial and organizational structure of business and how it influences bioengineering analysis, design, and decision making; biomedical ethics and device and drug regulation; and fundamentals of business and technical management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE Junior, Senior or Post-Bac; BME 100 with C or better; ENG 102, 105 or 108 with C or better
BME	318	Biomaterials	Material properties of natural and artificial biomaterials. Tissue and blood biocompatibility. Uses of materials to replace body parts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE student; BME 235 with a C or better
BME	331	Bioengineering Transport Phenomena	Transport phenomena with emphasis on momentum, energy, and mass transport in living systems, medical devices, and other therapeutic/diagnostic applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 212 (or ECE 214), MAT 274 (or MAT 275) and CHM 341 with D or better; BME 200 with C or better
BME	350	Signals and Systems for Bioengineers	Applies principles of calculus and ordinary differential equations to analysis and computer processing of biosignals and linear modeling of biosystems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Engineering BSE/BS student; EEE 202 with C or better; MAT 274 or MAT 275 with C or better; Pre/Co-requisite: MAT 343
BME	370	Microcomputer Applications in Bioengineering	Uses microcomputers for real-time data collection, analysis, and control of experiments involving actual and simulated physiological systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: BS/BSE Engineering students only; BME 235, BME 350 with a C or better or currently enrolled
BME	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	411	Biomedical Engineering I	Reviews diagnostic and prosthetic methods using engineering methodology. Introduces transport, metabolic, and autoregulatory processes in the human body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BSE/BS students; Minimum GPA of 2.50; BME 334 with C or better
BME	412	Biomedical Engineering II	Reviews electrophysiology and nerve pacing applications. Introduces biomechanics and joint/limb replacement technology, cardiovascular and pulmonary fluid mechanics, and the application of mathematical modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BSE/BS students; Minimum cumulative GPA of 2.50
BME	413	Biomedical Instrumentation	Principles of medical instrumentation. Studies of medical diagnostic instruments and techniques for the measurement of physiological variables in living systems. Both BME 413 and BME 423 need to be taken together to secure L General Studies credit.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.	L	Pre-requisites: Engineering BS or BSE student; BME 370, BME 235 with C or better
BME	415	Biomedical Transport Processes	Principles of momentum, heat, and mass transport with applications to medical and biological systems and medical device design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.0; MAT 274 with a D or better or currently enrolled; PHY 116 or PHY 131 with a D or better or currently enrolled in PHY 131 OR Graduate Engineering student
BME	416	Biomechanics	Mechanical properties of bone, muscle, and soft tissue. Static and dynamic analysis of human movement tasks such as locomotion.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE student; BME 318 and MAE 212 with C or better
BME	417	Biomedical Engineering Capstone Design I	Technical, regulatory, economic, legal, social, and ethical aspects of medical device systems engineering design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.	L	Pre-requisite: BME 318; BME 331; BME 370; IEE 380; BME 300 with C or better; Pre/Co-requisite: BME 413
BME	419	Biocontrol Systems	Applies linear and nonlinear control systems techniques to analysis of neuromusculoskeletal, cardiovascular, thermal, and mass transfer systems of the body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS or BSE student; BME 350 and BME 370 with C or better
BME	423	Biomedical Instrumentation Laboratory	Lab experience with problems, concepts, and techniques of biomedical instrumentation in static and dynamic environments. Both BME 413 and BME 423 need to be taken together to secure L General Studies credit. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.	L	Pre-requisites: BS/BSE Engineering, pre-requisite or co-requisite: BME 413
BME	434	Applications of Bioengineering Transport Phenomena	Develops mathematical models of transport phenomena in physiological systems, medical devices, and pharmacokinetic analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS or BSE student; BME 331 with C or better
BME	451	Cell Biotechnology Laboratory	Mammalian cell culture techniques, including mouse embryonic stem cells, the use of bioreactors, cell fractionation, and digital video imaging.	N	LEL	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: BIO 353 (or MBB 245) with C or better; Students who have credit for BME 451, may not enroll in BIO 451
BME	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	490	Biomedical Engineering Capstone Design II	Individual projects in medical systems or medical device design and development. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Engineering BS or BSE student; BME 417 with C or better
BME	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6		
BME	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6	L	Pre-requisites: Must be an Honors student
BME	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	496	Professional Seminar	Professional and ethical aspects with a discussion of responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-7		Pre-requisite: Bioengineering or Pre-Med Engineering BS or BSE student

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BME	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	511	Biomedical Engineering I	Diagnostic and prosthetic methods using engineering methodology. Transport, metabolic, and autoregulatory processes in the body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	512	Biomedical Engineering II	Electrophysiology and nerve pacing applications. Introduces biomechanics and joint/limb replacement, technology, cardiovascular and pulmonary fluid mechanics, and mathematical modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	513	Biomedical Instrumentation	Principles of medical instrumentation. Studies of medical diagnostic instruments and techniques for the measurement of physiologic variables in living systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	514	Advanced Biomedical Instrumentation	Principles of applied biophysical measurements using bioelectric and radiological approach.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	515	Biomedical Transport Processes	Principles of momentum, heat, and mass transport with applications to medical and biological systems and medical device design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	516	Topics in Biomechanics	Mechanical properties of bone, muscle, and soft tissue. Static and dynamic analysis of human movement tasks, including in-depth project.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	518	Introduction to Biomaterials	Topics include structure property relationships for synthetic and natural biomaterials, biocompatibility, and uses of materials to replace body parts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	519	Topics in Biocontrol Systems	Linear and nonlinear control systems analysis of neuromusculoskeletal, cardiovascular, thermal, and mass transfer systems of the body, including in-depth project.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	520	Bioelectric Phenomena	Study of the origin, propagation, and interactions of bioelectricity in living things; volume conductor problem, mathematical analysis of bioelectric interactions, and uses in medical diagnostics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	521	Neuromuscular Control Systems	Overview of sensorimotor brain structures. Application of nonlinear, adaptive, optimal, and supervisory control theory to eye-head-hand coordination and locomotion.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	522	Biosensor Design and Application	Theory and principles of biosensor design and application in medicine and biology. Principles of measurements with biosensors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	523	Physiological Instrumentation Lab	Lab experience with problems, concepts, and techniques of biomedical instrumentation in static and dynamic environments.	N	LAB	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		Pre-requisites: Graduate Engineering students only
BME	524	Fundamentals of Applied Neural Control	Fundamental concepts of electrical stimulation and recording in the nervous system with the goal of functional control restoration.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	525	Surgical Techniques	Principles of surgical techniques, standard operative procedures, federal regulations, guidelines, and state-of-the-art methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	2.		Pre-requisites: Graduate Engineering students only
BME	532	Prosthetic and Rehabilitation Engineering	Analysis and critical assessment of design and control strategies for state-of-the-art medical devices used in rehabilitation engineering.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	533	Transport Processes I	Unified treatment of momentum, heat, and mass transfer from molecular theory, and continuum points of view. Continuum equations of microscopic and macroscopic systems and multicomponent and multiphase systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	534	Transport Processes II	Continuation of BME 533 or CHE 533, emphasizing mass transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	543	Thermodynamics of Chemical Systems	Classical and statistical thermodynamics of nonideal physicochemical systems and processes; prediction of optimum operating conditions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	544	Chemical Reactor Engineering	Reaction rates, thermodynamics, and transport principles applied to the design and operation of chemical reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	551	Movement Biomechanics	Mechanics applied to the analysis and modeling of physiological movements. Computational modeling of muscles, tendons, joints, and the skeletal system with application to sports and rehabilitation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	566	Medical Imaging Instrumentation	Design and analysis of imaging systems and nuclear devices for medical diagnosis, therapy, and research. Lab experiments using diagnostic radiology, fluoroscopy, ultrasound, and CAT scanning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	568	Medical Imaging	CT, SPECT, PET, and MRI. 3-D in vivo measurements. Instrument design, physiological modeling, clinical protocols, reconstruction algorithms, and quantitation issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		

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BME	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		Pre-requisites: Graduate Bioengineering students only
BME	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-15		
BME	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-15		
BMI	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		
BMI	501	Introduction to Biomedical Informatics	Overview of the field of biomedical informatics for use of computers and information in healthcare and the biomedical sciences.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	502	Foundations of Biomedical Informatics Methods I	First semester of a two-semester course surveying the methods and theories underlying the field of biomedical informatics.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	505	Foundations of Biomedical Informatics Methods II	Second semester of a two-semester course surveying the methods and theories underlying the field of biomedical informatics.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: BMI 502 with a C or better; admission to a graduate program in the School of Computing and Informatics
BMI	511	Decision Support and Evidence-Based Practice	Biomedical decision making and the tools and techniques for decision support, including artificial intelligence and machine learning techniques.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		
BMI	515	Advanced Biostatistical Methods	Understanding biomedical data; how to use statistical methods and software to correctly analyze biomedical data.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	516	Advanced Biomedical Data Analysis	Acquisition, conversion and organization of biological data into relevant diagnostic, therapeutic, and research information using information extraction and data mining.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: BMI 501 with C or better, and admission to any SCI graduate program

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BMI	520	Modeling Gene Regulatory Networks	Computational and mathematical modeling used to approximate gene regulatory networks as well as signaling pathways and inference of model parameters.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: BMI 505 and BMI 516 with C or better, and admission to any SCI graduate program
BMI	540	Problem Solving in Biomedical Informatics	Theory and practice of software engineering principles as they apply to large- and medium-scale clinical systems from bench to bedside.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisite: BMI 501 with C or better, and admission to any SCI graduate program
BMI	541	Cognition and Decision Making in Healthcare	Conceptual and methodological issues in cognitive science and medical informatics, including design and use of technology in medical settings.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	555	Medical Information Management	Database theory and information management systems with applications to biomedical domain, including use of databases in the Web context.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: CSE 412 with D or better, and admission to any SCI graduate program
BMI	560	Teaching in Biomedical Informatics	Student serves as a teaching assistant with a faculty member who is teaching either a required or elective course in the Biomedical Informatics curriculum. Such courses will generally be BMI courses but with the approval of the student's faculty program advisor may include a course that is an approved elective in the BMI program but is offered in another department within the university. The experience provides a significant teaching role, either lecturing or moderating small group sessions or laboratories. Grading class homework assignments and designing/grading examinations will also typically be part of the experience. Assisting other students outside of class and being available during office hours will also generally be part of the student teacher's role. A student may also receive 1 hour of credit for participating substantively in the design of a new course, working closely with a faculty member. Generally in such circumstances the student should then serve as course teaching assistant when it is offered for the first time (separate enrollment in this course).	N	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1.		Pre-requisite: Biomedical Informatics PhD student
BMI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		Pre-requisite: BMI Graduate student
BMI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Biomedical Informatics Program	1-12		
BMI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	GNA	Graduate College	Biomedical Informatics Program	1-12		Pre-requisite: Biomedical Informatics Masters student
BMI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		Pre-requisites: Admission to any SCI graduate program
BMI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Graduate College	Biomedical Informatics Program	1-12		
BMI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Graduate College	Biomedical Informatics Program	1.		
BMI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1-4		Pre-requisites: Admission to any SCI graduate program
BMI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Biomedical Informatics Program	1-12		Pre-requisite: Biomedical Informatics Masters student
BMI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		
BMI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	OPT	Graduate College	Biomedical Informatics Program	1-15		
BMI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Graduate College	Biomedical Informatics Program	1-15		
BMI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Biomedical Informatics Program	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BMI	101	Introduction to Bioinformatics	Introduces existing and future applications of biomedical informatics. Overview of history and present state of the field. Introduces topics in translational bioinformatics, such as sequence alignment, the Human Genome Project, gene expression analysis, genome-wide association studies, next-generation sequencing.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	102	Introduction to Public Health/Imaging Informatics	Introduces existing and future applications of biomedical informatics. Overview of history and present state of the field. Second course in a three-semester series focusing on biomedical informatics applications in public health, including population studies and outbreak detection, and medical imaging, including telemedicine.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		Pre-requisite: BMI 101 with B or better
BMI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	Biomedical Informatics Program	1-4		
BMI	201	Introduction to Clinical Informatics	Introduces existing and future applications of biomedical informatics. Overview of history and present state of the field. Provides an introduction to biomedical informatics techniques and applications used in clinical environments. Includes searching and organizing free text information, decision analysis techniques and clinical decision support systems, and clinical applications including physician order entry used in electronic medical records. Also covers challenges in clinical informatics, including sociotechnical and cognitive issues in implementation and use.	N	LEC	N	GRD	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	211	Modeling Biomedical Decisions	First semester of a three-semester course sequence surveying the methods and theories underlying the field of biomedical informatics. Explores models of medical decision making, including classical decision theory, Bayesian, and cognitive models. Also includes a component discussing evaluation methods in biomedical informatics.	N	PRA	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	221	Knowledge Representation for Biomedical Informatics	Introduces topics in knowledge representation and modeling, including frame-based systems, logic-based systems, rule-based systems, inference, and reasoning. Overview of history and present state of the field.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	301	Clinical Environments	Designed for medical informatics students who have no significant clinical experience in the U.S. Introduces medical terminology and exposes students to the clinical environments in which health care providers create, manage, and use clinical information. Students attend lectures and spend a significant portion of time examining and reporting on different clinical settings throughout the semester.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	311	Modeling Biomedical Knowledge	Introduces concepts of artificial intelligence and knowledge modeling using medical informatics examples. Historical foundations and motivations of AI in medical applications; problem solving, reasoning, knowledge management, and planning as applied to medical informatics problems.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	312	Modeling Biomedical Data	Third semester of a three-semester course surveying the methods and theories underlying the field of biomedical informatics. Explores methods of use in the design and maintenance of biomedical databases, machine learning techniques, information retrieval in biomedicine and other methods specific to bioinformatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	330	Topics in Translational Bioinformatics	Provides an introduction to bioinformatics methods and applications used in the field of translational medicine research. Topics include bioinformatics data acquisition and management, including microarrays, database modeling and integration; analysis methodologies, including statistics and data mining; and applications.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	332	Team Dynamics for Healthcare IT Projects	Teaches the fundamentals of leadership, management, and team dynamics in a project-focused software engineering environment, and with a focus on informatics and healthcare applications. Teaches students about team and group dynamics, recognizing dysfunctional teams, and helping to fostering productive group and leadership skills.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	461	Advanced Topics in Biomedical Informatics I	Covers current trends and cutting-edge research areas of clinical, public health, and consumer health informatics. Particular emphasis on research that is of relevance to patients, and the healthy public, covering such topics as outbreak detection and the personal health record. Also covers research on the use of technology in medical education, and the ways in which clinical decision support systems are applied in contemporary medical practice.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BMI	462	Advanced Topics In Biomedical Informatics II	Covers current trends and cutting-edge research areas of bioinformatics, imaging informatics, and translational science. Emphasizes informatics approaches to the novel data sources that are supplied by the next generation of methods for affordable gene sequencing, and initiatives underway to accelerate the integration of novel research findings into everyday clinical practice. Includes a series on modeling and simulation, current approaches to computer-aided diagnosis of medical images, ways in which technology can support the discovery of new knowledge, and the application of telemedicine to remotely facilitate clinical care.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	465	Introduction to Comparative Genomics	Explores genomic sequences and hypotheses for their structure, evolutionary history, and underlying mechanisms.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	466	Bioinformatics and Molecular Evolution	Fundamental biological motivation and methods used in bioinformatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		Pre-requisites: BIO 345 and 355 (or MBB 355, or MAT 355) with C or better
BMI	482	Capstone I	First course in capstone sequence for biomedical informatics majors emphasizing the development of technical skills and effective team work within the context of a research project in biomedical informatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	483	Capstone II	Second course in capstone sequence for biomedical informatics majors emphasizing the development of technical skills and effective team work within the context of an applied project in biomedical informatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		Pre-requisite: BMI 482 with C or better
BMI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	Biomedical Informatics Program	1-4		
BUA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	300	Career Management	Provides professional program business administration students with information on ASU business-related courses, business careers, interviewing, job hunting, and résumé skills.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	1.		
BUA	330	Organizational Leadership	Strategies, skills, and techniques that promote successful leadership within organizations. Practice leadership skills and self-discovery in preparation for leadership positions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	380	Small Business Leadership	Develops leadership skills needed to form, lead, and operate a small business. Emphasizes creating a vision, research, and problem solving.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	381	Small Business Accounting and Finance	Accounting and finance skills needed by small business owners to acquire, allocate, and track monetary resources and evaluate performance.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	382	Small Business Sales and Market Development	Building and maintaining customers, developing a market identity and a niche, and the importance of sales.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	383	Small Business Working Relationships	Addresses communication and the people in a business--clients, employees, suppliers, competitors, governments, family, and self development.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	384	Small Business Operations and Planning	Planning and executing plans--the what, when, where, how, and who from product/service/project idea to pay back or completion.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-Requisites: Cannot be Agriculture Business Administration BS student; Must have a minimum of 47 total earned hours; Must have a minimum cumulative GPA of 2.0; Must have completed BUA 380 with a grade of D or better or co-enrolled
BUA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	440	Strategic Management	Strategic formulation and administration of the total organization, including integrative analysis and strategic plan; interrelationship of business functional areas.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	441	Entrepreneurship and Feasibility	Assessment of the opportunities, risks, and challenges associated with business start-up and continued operation.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey Business BS student or West Global Mgt student with Prof status; 75 minimum earned hours
BUA	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-6	L	Pre-requisites: Must be an Honors student
BUA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-7		
BUA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-12		
BUE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
BUE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		

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BUE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	502	Organization and Management of Cooperative Programs	Work-study programs for business occupations in high schools and community colleges.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre Requisites: Must be Post-Bach UG, non-degree Grad or Degree Grad
BUE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BUE	480	Teaching Business Subjects	Organization and presentation of appropriate content for business subjects in the secondary school.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BUE	481	Technology in Business and Vocational Education	Emerging curricula and instructional technology in business and vocational education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BUE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
BUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
BUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
BUS	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
BUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-7		
BUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
BUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	0.5-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		

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BUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	0.5-12		
BUS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
BUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
BUS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
CBS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
CBS	520	Modeling and Computational Biology	Key mathematical and computational techniques for bioinformatics. Numerical and visualization software; scripting, database management.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		
CBS	521	Applications and Complex Problem Solving in Computational Biology	Continuation of CBS 520. Key mathematical concepts. Team solution of bioinformatics applications, project writing, and presentation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		
CBS	530	Introduction to Structural and Molecular Biology	Structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		

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CBS	540	Functional Genomics	Functional relevance of genomic sequences; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
CBS	572	Data Mining	Advanced data mining techniques: classification, clustering, association, preprocessing; performance evaluation; information assurance, Web mining, security and privacy issues, and other applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
CBS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
CBS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
CCS	300	Chicana and Chicano Culture and Society	Intensive analysis of how Mexican American writers, artists, film makers, entertainers, and academicians have interpreted aspects of the Chicana and Chicano experience.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
CCS	446	Teaching Chicana and Chicano Studies in the Schools	Approaches/techniques for infusion of Chicana and Chicano Studies content into elementary and secondary curriculum; designed for teachers who work with Chicana and Chicano students.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
CDE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Freshman Standing; Maximum 25 hours
CDE	232	Human Development	Lifespan development from conception through adulthood, with emphasis on family influences. Recognition of individuality within the universal pattern of development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
CDE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	337	Early Childhood Intervention	Explores how child development theory affects practice with children and families, emphasizing development of young children and early intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	338	Child Development Practicum	Supervised practicum in the Child Development Lab preparing students for work in child care centers and agencies serving young children and families. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	2-4		
CDE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	430	Infant/Toddler Development in the Family	Examines the development of infants/toddlers, the socialization processes of families, and the interactions of these processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
CDE	437	Infant Family Assessment and Observation	Examines strategies for implementing developmental assessments and observations of young children and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
CDE	444	Risk and Variation in Child Development	Impact that constitutional and environmental risk factors have on young children and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
CDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
CDE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CDE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
CDE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	531	Theoretical Issues in Child Development	Major developmental theories, related research, and their application to family interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	533	Research Issues in Child Development	In-depth exploration and critique of research focusing on child development in a family setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	534	Risk and Resilience in Children and Adolescents	Integrates child development, family theory, and research to understand risk and resilience in children and adolescents.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: CDE 531; FAS 500
CDE	570	Child Development for Infant Family Practice	Examines development during infancy and early childhood with an emphasis on social and emotional development, mental health, and early parent-child relationships.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	571	Infant Mental Health for Infant Family Practice	Surveys the biological and environmental risk factors that jeopardize the mental health of infants and young children; overview of prevention and intervention strategies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	572	Assessment of Infants, Toddlers, and Families for Infant Family Practice	Developmentally appropriate assessment of mental disorders and developmental disabilities in infants, toddlers, and preschool children and parent-child relationships.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	573	Cultural Competence for Infant Family Practice	Examines cultural issues impacting parent-child relationships and child rearing and the effectiveness of infant mental health and early intervention services on families of various ethnic and cultural backgrounds.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	574	Observation and Reflection for Infant-Family Practice	Strategies for observing infant behavior and parent-child relationships and skills for reflective, relationship-based intervention.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	575	Advanced Observation and Reflection for Infant-Family Practice	Advanced strategies for observing infant behavior and parent-child relationships and skills for reflective relationship-based intervention.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	576	Applied Research Methods for Infant Family Practice	Survey and critical examination of child development, parent-child relationships, family relationships, and early intervention research and the application to IFP.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
CDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CDE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	634	Prevention and Child Development	Advanced training in research and theory-based approaches to developing and evaluating prevention programs for children at risk.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Prerequisite: CDE 534
CDE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
CDE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	THE	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
CDE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
CDE	232	Human Development	Lifespan development from conception through adulthood, with emphasis on family influences. Recognition of individuality within the universal pattern of development.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
CED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
CED	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	250	Career Development	Covers models of the individual, the world of work, and decision making with emphasis on individual application.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	L	
CED	294	Special Topic	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	L	Pre-requisites: Must be an Honors student
CED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-7		
CED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
CED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	512	Introduction to Helping Relationships	Introduces the skills used in the helping professions and examines the settings in which they occur.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CED	522	Theories of Counseling and Psychotherapy	Presents major theories of psychological intervention as well as underlying personality theory upon which they are based.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	523	Psychological Tests	Standardized tests in the study of the individual, with emphasis on test score interpretation in counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

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CED	525	Introduction to Program Evaluation	Introduces the major approaches and methods of designing and conducting program evaluations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: COE 501
CED	527	Community Counseling	Community focus with emphasis on outreach, prevention, psychoeducation, consulting, and advocacy from a systematic multicultural perspective.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	528	School Counseling	Introduces counseling within multicultural settings. Emphasizes counseling, consultation, and coordination skills needed for schools' comprehensive developmental guidance programs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	529	Lifespan Human Development	Issues and models of human development as it occurs across the lifespan.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CED	534	Occupations and Careers	The world of work, career development, education, and training for occupational entry and mobility.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	545	Analysis of the Individual	Theory and methods commonly used in studying the individual. Observational methods, diagnostic interviews, structured, and semi-structured methods for assessing personality.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	567	Group Dynamics and Counseling	Group process factors, theory, and diversity issues determining effective interaction in small groups. Emphasis placed on lecturettes, self awareness, and experiential components.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	577	Counseling Prepracticum	Focus on racial, social, and cultural factors in the development of helping relationships through integration of cognitive and affective self-awareness with counseling skills.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling Psychology MC or PhD student
CED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	655	Student Development Programs in Higher Education	Emerging conceptual models of student development. Overview of student personnel and student affairs programs in community colleges, four-year colleges, and universities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: must be a graduate student (non-degree or degree seeking)
CED	672	Marriage and Family Counseling	Introduces marriage and family counseling theories. Emphasizes a systems-communication model utilizing cocounseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	111	Exploration of Education	Education as an instrument in the development of the individual and society, and its significance as an American institution.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
CEE	100	Introduction to Civil and Environmental Engineering	Introduces basics of civil and environmental engineering design, team work, ethics, communication and management skills, modeling, problem solving, computer applications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	2.		Pre-requisites: Civil Engineering students only
CEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		
CEE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	210	Engineering Mechanics I: Statics	Force systems, resultants, equilibrium, distributed forces, area moments, fluid statics, internal forces, friction, and stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 100 with C or better; MAT 266 (or MAT 271) with C or better; PHY 121 with C or better; PHY 122 with C or better
CEE	212	Engineering Mechanics II: Dynamics	Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 210 and MAT 275 (or MAT 274) completed with C or better
CEE	213	Introduction to Deformable Solids	Strain-displacement and stress-strain-temperature relations. Stresses and deformations due to axial, shear, torsional and bending moments. Buckling, stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 210 (or CEE 211) with C or better; MAT 274 (or MAT 275) with C or better
CEE	281	Surveying	Theory and fieldwork in construction and land surveys. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	300	Engineering Business Practice	Engineering economic principles, cost/benefit analysis, project financing and delivery, management of engineering design, business practices, ethical and professional responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	L	Pre-requisites: BSE Civil Engineering student; CEE 213 with C or better
CEE	312	Engrg Materials		N	LEC	N	CNV	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	2.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CEE	321	Structural Analysis and Design	Statically determinate and indeterminate structures (trusses, beams, and frames) by classical and matrix methods. Introduces structural design. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 212 (or CEE 211) with C or better; CEE 213 with C or better; Pre- or Co-requisite: CEE 384 or MAE 384 (with C or better if completed)
CEE	341	Fluid Mechanics for Civil Engineers	Fundamental principles and methods of fluid mechanics forming the analytical basis for water resources engineering. Conduit and open channel flow. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 212 (or CEE 211) and CEE 213 with C or better; Pre- or Co-requisite: CEE 384 or MAE 384 (C or better if completed)
CEE	351	Geotechnical Engineering	Index properties and engineering characteristics of soils. Compaction, permeability and seepage, compressibility and settlement, and shear strength. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering student; CEE 213 with C or better
CEE	353	Civil Engineering Materials	Structure and behavior of civil engineering materials, including steel, aggregate, concrete, masonry, asphalt, wood, composites. Atomic structure and engineering applications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: BSE Civil Engineering student; CEE 213 with C or better
CEE	361	Introduction to Environmental Engineering	Concepts of air and water pollution; environmental regulation, risk assessment, chemistry, water quality modeling, water and wastewater treatment systems designs. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 213 with a C or better; CHM 114 or CHM 116 with a D or better; Pre- or Co-requisite: IEE 380 with D or better if completed
CEE	372	Transportation Engineering	Fundamental background of highway and traffic engineering in the areas of planning, design, and operations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: Civil Engineering BSE student; CEE 213 with C or better; Pre/Co-requisite: IEE 380
CEE	384	Numerical Methods for Engineers	Numerical methods and computational tools for selected problems in engineering. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	CS	Pre-requisites: Engineering BSE students; MAT 274 or MAT 275 & MAT 267 or MAT 272 (grade of C or better); MAT 267 or MAT 272 may be taken as a co-requisite. Credit for only CEE 384 or MAE 384
CEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	400	Earth Systems Engineering and Management	Introduces earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	(L or HU) & H	Pre-requisites: Civil and Environmental Engineering BS or BSE student; CEE 300 with C or better OR Non-CEE Juniors or Seniors
CEE	412	Pavement Analysis and Design	Design of flexible and rigid pavements for highways and airports. Surface, base, and subgrade courses. Cost analysis and pavement selection. Credit is allowed for only CEE 412 or 511.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; completed CEE 351 and CEE 353 with a grade of C or greater
CEE	420	Steel Structures	Behavior of structural components and systems. Design of steel members and connections. Load and resistance factor design methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better
CEE	421	Concrete Structures	Behavior of concrete structures and the design of reinforced and prestressed concrete members, including footings. Partial design of concrete building system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better
CEE	423	Structural Design	Analysis and design of reinforced concrete steel, masonry, and timber structures. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 421 with C or better; Pre/Co-requisite: CEE 420 (with C or better if completed)
CEE	432	Developing Software for Engineering Applications	Matrix and computer applications to structural engineering and structural mechanics. Stiffness and flexibility methods, finite elements, and differences.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 with a grade of C or greater
CEE	440	Engineering Hydrology	Descriptive hydrology; hydrologic cycle, models, and systems. Rain-runoff models. Hydrologic design. Concepts, properties, and basic equations of groundwater flow.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 341 with a grade of C or greater
CEE	441	Water Resources Engineering	Applies the principles of hydraulics and hydrology to the engineering of water resources projects; design and operation of water resources systems; water quality.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 341 with C or better
CEE	452	Foundations	Applies soil mechanics to foundation and retaining wall systems, including bearing capacity, settlement, and lateral earth pressure.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 351 with C or better
CEE	462	Unit Operations in Environmental Engineering	Design and operation of unit processes for water and wastewater treatment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 361 with C or better
CEE	466	Urban Water System Design	Capacity; planning and design of water supply; domestic and storm drainage; and solid waste systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 341 and 361 with C or better
CEE	467	Environmental Microbiology	Overview of the microbiology of natural and human-impacted environment, microbial detection methodologies, waterborne disease outbreaks, risk assessment, and regulations. Credit is allowed for only CEE 467 or 567. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 361 or MIC 220 with a grade of C or greater
CEE	469	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 361 or CHE 334 with a C or greater
CEE	474	Transportation Systems Planning	Transportation systems modeling procedures, travel characteristics analysis, traffic predictions, transportation systems management, and transit planning methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 372 and 384 with C or better
CEE	475	Highway Geometric Design	Design of visible elements of roadway, design controls, at-grade intersections, freeways, and interchanges. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 372 with a grade of C or greater
CEE	481	Civil Engineering Project Management	Civil engineering project management and administration, planning and scheduling, cost estimating and bidding strategies, financial management, quality control and safety, and computer applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better; CEE 351 with C or better; CEE 372 with C or better

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CEE	483	Highway Materials, Construction, and Quality	Properties of highway materials, including aggregates, asphalt concrete, and portland cement concrete; construction practice; material delivery, placement, and compaction; quality control. Credit is allowed for only CEE 483 or 583.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 351 and CEE 372 and CEE 353 with a grade of C or greater
CEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	486	Integrated Civil Engineering Design	Requires completion of a civil engineering design in a simulated practicing engineering environment. Limited to undergraduates in their final semester.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	L	Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 and CEE 341 and CEE 351 and CEE 361 and CEE 372 with a grade of D or greater or be currently enrolled
CEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-6		Pre-requisites: Honors students only
CEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-6	L	Pre-requisites: Engineering Honors students only
CEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-7		
CEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		
CEE	511	Pavement Analysis and Design	Design of flexible and rigid pavements for highways and airports. Surface, base, and subgrade courses. Cost analysis and pavement selection. Credit is allowed for only CEE 511 or 412.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Graduate Civil Engineering students only
CEE	512	Pavement Performance and Management	Pavement management systems, including data collection, evaluation, optimization, economic analysis, and computer applications for highway and airport design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Graduate Civil Engineering student
CEE	513	Pavement Evaluation, Maintenance, and Rehabilitation	Provides the necessary information for pavement engineers to evaluate, identify, and select reliable and cost-effective rehabilitation alternatives for existing Hot Mix Asphalt (HMA) and Portland Cement Concrete (PCC) pavements.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Must be a graduate student in Engineering
CEE	514	Bituminous Materials and Mixture	Types of bituminous materials used in pavement mixtures. Chemical composition, physical properties, desirable aggregate characteristics, optimum asphalt contents, superpave asphalt binder, mixture design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Graduate Civil Engineering student
CEE	515	Properties of Concrete	Materials science of concrete. Cement chemistry, mechanisms of hydration, interrelationships among micro- and macro-properties of cement-based materials. Mechanical properties, failure theories, fracture mechanics of concrete materials. Cement-based composite materials and the durability aspects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	516	Sustainable Energy and Material Use	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	521	Stress Analysis	Introduces tensors: kinematics, stress analysis, and constitutive assumptions leading to elastic and plastic behavior. Strain energy and energy methods; applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	522	Experimental Stress Analysis	Specification and analysis of stress and strain at a point, stress-strain relationships. Mechanical, optical, and electrical strain gages and circuits, digital data acquisition and analysis, closed loop mechanical testing, fracture mechanics, optical methods and photoelasticity, and introduction to nondestructive testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	524	Advanced Steel Structures	Strength properties of steel and their effects on structural behavior. Elastic design of steel structures. Plastic analysis and design of beams, frames, and bents. Plastic deflections. Plastic design requirements. Multistory buildings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	526	Finite Elements for Engineers	Direct stiffness, method of weighted residuals, weak formulation, and variational techniques in the solution of engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		Pre-requisite: Engineering CEE Graduate student
CEE	527	Advanced Concrete Structures	Ultimate strength design. Combined shear and torsion. Serviceability. Plastic analysis. Special systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student

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CEE	530	Prestressed Concrete	Materials and methods of prestressing. Analysis and design for flexure, shear, and torsion. Prestress losses due to friction, creep, shrinkage, and anchorage set. Statically indeterminate structures. Design of flat slabs, bridges, and composite beams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	532	Developing Software for Engineering Applications	Fundamentals of engineering software development and object-oriented programming. Programming in C++. Development of matrix toolbox. Introduces finite element method. Computer graphics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Engineering CEE Graduate Students Only
CEE	533	Structural Optimization	Linear and nonlinear programming. Problem formulation. Design sensitivity analysis. FEM-based optimal design of structural and mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	536	Structural Dynamics	Free vibration and forced response of discrete and continuous systems, exact and approximate methods of solution, response spectra, computational techniques, special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	537	Topics in Structural Engineering	Advanced topics, including nonlinear structural analysis, experimental stress analysis, advanced finite elements, plasticity and viscoelasticity, composites, and damage mechanics.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		Pre-requisites: Engineering CEE Graduate Students Only
CEE	540	Groundwater Hydrology	Physical properties of aquifers, well pumping, subsurface flow modeling, unsaturated flow, numerical methods, land subsidence, and groundwater pollution.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	541	Surface Water Hydrology	Hydrologic cycle and mechanisms, including precipitation, evaporation, and transpiration; hydrograph analysis; flood routing; statistical methods in hydrology and hydrologic design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	543	Water Resources Systems	Theory and application of quantitative planning methodologies for the design and operation of water resources systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	544	Water Policy and Management	Covers water policy and management focused on Arizona. Useful to anyone looking for a general background on water issues in Arizona or considering a career in water resources and environmental engineering, planning, or public policy. Divided into three major sections: the history of water resources development and hydrology of Arizona; water management in Arizona; and an examination of current issues and controversies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		You may not enroll in CEE 544 if you have credit in SOS 551
CEE	546	Free Surface Hydraulics	Derivation of 1-D equations used in open channel flow analysis; computations for uniform and nonuniform flows, unsteady flow, and flood routing. Mathematical and physical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	547	Principles of River Engineering	Uses of rivers, study of watershed, and channel processes. Sediment sources, yield, and control; hydrologic analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	548	Sedimentation Engineering	Introduces the transportation of granular sedimentary materials by moving fluids. Degradation, aggregation, and local scour in alluvial channels. Mathematical and physical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	550	Soil Behavior	Physicochemical aspects of soil behavior, stabilization of soils, and engineering properties of soils.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	551	Advanced Geotechnical Testing	Odometer, triaxial (static and cyclic) back pressure saturated and unsaturated samples, pore pressure measurements, closed-loop computer-controlled testing, in-situ testing, and sampling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	553	Advanced Soil Mechanics	Applies theories of elasticity and plasticity to soils, theories of consolidation, failure theories, and response to static and dynamic loading.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	554	Shear Strength and Slope Stability	Shear strength of saturated and unsaturated soils strength-deformation relationships, time-dependent strength parameters, effects of sampling, and advanced slope stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	555	Advanced Foundations	Deep foundations, braced excavations, anchored bulkheads, reinforced earth, and underpinning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	556	Seepage and Earth Dams	Transient and steady-state fluid flow through soil, confined and unconfined flow, pore water pressures, and application to earth dams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	557	Geoenvironmental Engineering	Environmental site assessment, solid waste management, waste containment system design, soil and groundwater remediation, soil erosion control, brownfields development.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	559	Earthquake Engineering	Characteristics of earthquake motions, selection of design earthquakes, site response analyses, seismic slope stability, and liquefaction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	560	Soil and Groundwater Remediation	Presents techniques for remediation of contaminated soils and groundwaters with basic engineering principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	561	Physical-Chemical Treatment of Water and Waste	Theory and design of physical and chemical processes for the treatment of water and wastewaters.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3-4		Pre-requisite: Engineering CEE Graduate student
CEE	562	Environmental Biochemistry and Waste Treatment	Theory and design of biological waste treatment systems. Pollution and environmental assimilation of wastes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3-4		Pre-requisite: Engineering CEE Graduate student

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CEE	563	Environmental Chemistry Laboratory	Analyzes water, domestic and industrial wastes, lab procedures for pollution evaluation, and the control of water and waste treatment processes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	564	Contaminant Fate and Transport	Fate and transport processes with emphasis on governing equations and parameters relevant to the migration of chemicals in the environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	566	Industrial/Hazardous Waste Treatment	Emphasizes treatment of local industrial/hazardous waste problems, including solvent recovery and metals.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	567	Environmental Microbiology	Overview of the microbiology of natural and human-impacted environment, microbial detection methodologies, waterborne disease outbreaks, risk assessment, and regulations. Credit is allowed for only CEE 567 or 467.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	568	Unit Processing in Environmental Engineering	Design and operation of unit processes for water and wastewater treatment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	569	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CEE 569 or 469.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	573	Transportation Operations	Driver, vehicle, and roadway characteristics; traffic control devices; traffic engineering studies; and transportation system management measures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	574	Highway Capacity	Highway capacity for all functional classes of highways. Traffic signalization, including traffic studies, warrants, cycle length, timing, phasing, and coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	576	Highway Geometric Design	Design of visible elements of roadway, design controls, at-grade intersections, freeways, and interchanges.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Engineering CEE Graduate student
CEE	581	Advanced Earth Systems Engineering and Management	Advanced introduction to earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	582	Industrial Ecology and Design for Sustainability	The conceptual, ethical, and practical challenges in the design, manufacture, and life cycle performance of products; environmental evaluation via materials flow analysis and life cycle assessment; global economic, environmental, cultural, and social aspects of competitive and functional product development and manufacture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student
CEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Engineering CEE Graduate student
CEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student
CEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1.		Pre-requisite: Civil Engineering MS or MSE student
CEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		Pre-requisite: Engineering CEE Graduate student
CEE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CEE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering PhD student
CEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-15		Pre-requisite: Civil Engineering PhD student
CEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1.		Pre-requisite: Civil Engineering PhD student
CEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-15		Pre-requisite: Civil Engineering PhD student
CFA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-7		
CFA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-3		
CFA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
CFA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CFA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
CHE	100	Introduction to Chemical Engineering	Introduces design in chemical engineering, teaming, chemical engineering profession, computer models, communication skills, quality and customer satisfaction. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	2.		Pre-requisite: Ira A. Fulton School of Engineering and University College student
CHE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		

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CHE	211	Introduction to Chemical Processing	Applies chemical engineering analysis and problem solving to chemical processes material and energy balance methods and skills.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: CHM 116 with C or better; MAT 266 or MAT 271 with C or better
CHE	231	Introduction to Transport Phenomena I: Fluids	Transport phenomena, with emphasis on fluid systems. Credit is allowed for only CHE 231 or 501.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: CHE 211 with C or better; MAT 266 or MAT 271 with a C or better
CHE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-6		Pre-requisites: Honors students only
CHE	334	Introduction to Transport Phenomena II: Heat and Mass Transfer	Applies heat and mass transport principles. Design of heat exchangers and continuous contactors. Credit is allowed for only CHE 334 or 502.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 231 or 331 with C or better
CHE	342	Introduction to Applied Chemical Thermodynamics	Applies conservation and accounting principles with nonideal property estimation techniques. Credit is allowed for only CHE 342 or 504.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 211 or CHE 311 with C or better; Pre or Co-requisite: MAT 267 or MAT 272 (with C or better if completed)
CHE	352	Transport Laboratories	Introduces engineering lab equipment, data collection, and analysis; strengthens ability to generate written reports and oral presentations; reinforces teamwork skills; strengthens and extends the understanding of earlier technical contents in the curriculum. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	L	Pre-requisites: BS/BSE Engineering students
CHE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	432	Principles of Chemical Engineering Design	Multicomponent distillation, engineering economics, equipment sizing and costs, plant operation economics, and simulation and optimization techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student; CHE 334 and CHE 342 with a C or better OR Graduate Engineering student
CHE	433	Modern Separations	Design of modern separation equipment in chemical engineering other than fractionation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student; CHE 334 and CHE 342 with C or better
CHE	442	Introduction to Chemical Reactor Design	Applies kinetics to chemical reactor design. Credit is allowed for only CHE 442 or 505.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE students; CHE 334 and CHE 342 with a C or better OR Graduate Engineering students
CHE	451	Chemical Engineering Laboratory	Operation, control, and design of experimental and industrial process equipment; independent research projects. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 334 with C or better; CHE 342 with C or better; MAE 384 (or ECE 384) with C or better OR Graduate Engineering students
CHE	458	Semiconductor Material Processing	Introduces the processing and characterization of electronic materials for semiconductor applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE student; CHE 334 and CHE 342 with C or better OR Graduate Engineering student
CHE	461	Process Dynamic Control	Process dynamics, instrumentation, and feedback applied to automatic process control. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	CS	Pre-requisites: Engineering BS or BSE student; MAT 274 or MAT 275 with C or better; MAE 384 or CEE 384 with a C or better OR Graduate Engineering student
CHE	462	Process Design	Applies economic principles to optimize equipment selection and design; development and design of process systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	L	Pre-requisites: Engineering BS or BSE student; CHE 432, CHE 442 and CHE 433 with C or better OR Graduate Engineering student
CHE	469	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CHE 469 or 569.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	474	Chemical Engineering Design for the Environment	Conflict of processing materials and preserving the natural resources. Teaches students to understand and value the environment and attempt to control our impact.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; Must have completed CHE 334 and CHE 342 with a grade of C or better
CHE	475	Biochemical Engineering	Applies chemical engineering methods, mass transfer, thermodynamics, and transport phenomena to industrial biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisite: Engineering BSE student
CHE	476	Bioreaction Engineering	Principles of analysis and design of reactors for processing with cells and other biologically active materials; applies reaction engineering in biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student OR Graduate Engineering student
CHE	477	Bioseparation Processes	Principles of separation of biologically active chemicals; the application, scale-up, and design of separation processes in biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with a minimum GPA of 3.00 OR Graduate Engineering student
CHE	478	Industrial Water Quality Engineering	Chemical treatment processing, quality criteria and control, system design, and water pollutants.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; Must have completed CHE 231 or CHE 331 with a grade of C or greater; Seniors only
CHE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	490	Chemical Engineering Projects	Individual projects in chemical engineering operations and design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-5		Pre-requisite: Engineering BSE student
CHE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-6		Pre-requisites: Honors students only
CHE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-6	L	Pre-requisites: Honors students only
CHE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	496	Professional Seminar	Professional and ethical aspects with a discussion of responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-7		Pre-requisites: Engineering BS or BSE student OR Graduate Engineering student
CHE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	501	Introduction to Transport Phenomena I: Fluids	Transport phenomena, with emphasis on fluid systems. Credit is allowed for only CHE 501 or 231.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	502	Introduction to Transport Phenomena II: Heat and Mass Transfer	Applies heat and mass transport principles. Design of heat exchangers and continuous contactors. Credit is allowed for only CHE 502 or 334.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	504	Introduction to Applied Chemical Thermodynamics	Applies conservation and accounting principles with nonideal property estimation techniques. Credit is allowed for only CHE 504 or 342.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	505	Introduction to Chemical Reactor Design	Applies kinetics to chemical reactor design. Credit is allowed for only CHE 505 or 442.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in MSE 518, EEE 518, or MSE 475 you may not enroll in CHE 518
CHE	527	Advanced Applied Mathematical Analysis in Chemical Engineering	Formulation and solution of complex mathematical relationships resulting from the description of physical problems in mass, energy, and momentum transfer and chemical kinetics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	533	Transport Processes I	Unified treatment of momentum, heat, and mass transfer from molecular theory, and continuum points of view. Continuum equations of microscopic and macroscopic systems and multicomponent and multiphase systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Graduate Engineering student
CHE	534	Transport Processes II	Continuation of BME 533 or CHE 533, emphasizing mass transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	536	Convective Mass Transfer	Turbulent flow for multicomponent systems, including chemical reactions with applications in separations and air pollution.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	543	Thermodynamics of Chemical Systems	Classical and statistical thermodynamics of nonideal physicochemical systems and processes; prediction of optimum operating conditions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Graduate Engineering student
CHE	544	Chemical Reactor Engineering	Reaction rates, thermodynamics, and transport principles applied to the design and operation of chemical reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	552	Industrial Water Quality Engineering	Water pollutants, quality criteria and control, chemical treatment processing, and system design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	553	Air Quality Control	Air pollutant origins, effects, and control. Physical and chemical processes, including dispersion, combustion, sampling, control equipment design, and special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	561	Advanced Process Control	Dynamic process representation, linear optimal control, optimal state reconstruction, and parameter and state estimation techniques for continuous and discrete time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	569	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CHE 569 or 469.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		

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CHE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		Pre-requisite: Graduate Engineering student
CHE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-15		
CHE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Chemical Engineering Program	1-15		
CHI	101	First-Year Chinese I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills. Standard dialect. 5 class hours. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
CHI	102	First-Year Chinese II	See CHI 101. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:Must have completed CHI 101 with a grade of D or better or be currently enrolled
CHI	120	Introduction to Chinese Culture	Introduces geographical, historical, literary, and intellectual premises of Chinese culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
CHI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	201	Second-Year Chinese I	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills. 5 class hours. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:Must have completed CHI 102 with a grade of D or better or currently enrolled
CHI	202	Second-Year Chinese II	See CHI 201. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:Must have completed CHI 201 with a grade of D or better or currently enrolled
CHI	205	Chinese Calligraphy	Introduces styles and techniques of Chinese writing. Requires no knowledge of Chinese or Japanese.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	301	Third-Year Chinese I	Expansion of proficiency in listening comprehension, speaking, reading, and writing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:CHI 202 with a grade of C or better or currently enrolled
CHI	302	Third-Year Chinese II	Continuation of CHI 301.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:CHI 301 with a grade of C or better or currently enrolled
CHI	307	Introduction to Literary Chinese I	Reading in various genres of pre-20th century literature (wen-yen), with analysis of the structure of the classical writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:CHI 302, or JPN 202, or KOR 202 with a grade of C or better or currently enrolled
CHI	308	Introduction to Literary Chinese II	Continuation of CHI 307.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:CHI 307 with a grade of C or better, or currently enrolled
CHI	309	Chinese Conversation	Aural/oral drills using contemporary stories, articles, and essays. For students with lower-level proficiency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites:Must have completed CHI 202 with a grade of D or better or currently enrolled
CHI	310	Chinese Conversation	See CHI 309.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites:CHI 202 with a grade of D or better or currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHI	311	Chinese Conversation	Intensive aural/oral practice in modern Chinese. For students who have lived in China or a Chinese-speaking environment.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		
CHI	312	Chinese Conversation	See CHI 311.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites:CHI 202 with a grade of D or better or currently enrolled
CHI	321	Chinese Literature	Masterworks of the tradition from the 7th century BCE through the 13th century. Readings, lectures, and examinations are in English.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	
CHI	322	Chinese Literature	Masterpieces from the later tradition and its transition to modern times. Readings, lectures, and examinations are in English.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
CHI	345	Chinese Film and Civilization	Screening and discussion of recent films from China, Taiwan, and Hong Kong in the context of modern Chinese civilization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	380	The Chinese Language	Introduces the Chinese languages from linguistic perspectives. Topics include the linguistic structure and characteristics (phonetics, phonology, morphology and syntax) of the Chinese language; linguistic history and dialects of Chinese; and its relationship with culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	401	Fourth-Year Chinese I	Focuses on solidifying and improving students' knowledge of modern Mandarin. Emphasizes learning strategies to increase reading and listening comprehension, as well as further strengthening oral fluency and written skills. Surveys a wide variety of original text and media materials, in both full-form and simplified characters. Conducted in Chinese.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 with C or better
CHI	402	Fourth-Year Chinese II	Continuation of CHI 401.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 401 with C or better
CHI	407	Chinese for Professional Purposes I	Part of the Chinese Flagship program; course has a three-fold objective: (1) to improve language proficiency in all four language skills; (2) to support other Flagship courses by introducing specific vocabulary, literary genres, key reference materials; and (3) to develop the use of explicit language learning strategies that support professional-level literacy.	N	DIS	N	OP4	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 402 with a C or better
CHI	408	Chinese for Professional Purposes II	Part of the Chinese Flagship Program. Improves language proficiency in all four language skills; supports other Flagship courses by introducing specific vocabulary, literary genres, key reference materials; develops the use of explicit language learning strategies that supports professional level literacy. All course work in Mandarin Chinese.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 407 with C or better
CHI	430	Readings in Chinese Religions	Readings in Chinese religious texts, including Buddhism, Daoism, local religious cults, and others. May be repeated once for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 308 (CHI 414) with C or better
CHI	450	Classical Prose	Readings in classical prose forms, including guwen, sanwen, pianwen, fu, and incidental writings. Course content varies with instructor.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 308 with a grade of C or better
CHI	461	Classical Vernacular Performance Literature	Readings in performance literature in colloquial Chinese. Bianwen, zhugongdiao, baojuan, zaju, chuanqi drama.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 and CHI 307 with a grade of C or better
CHI	462	Readings in Traditional Xiaoshuo	Readings in the shorter and longer fiction of the late imperial period written in classical vernacular language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302, and CHI 308
CHI	470	Modern Chinese Literature and Culture	Readings in modern Chinese literary texts, including prose, fiction, and poetry. Course content changes with instructor.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 with a grade of C or better
CHI	482	History of the Chinese Language	Introduces the history of the Chinese language. Graduate/advanced undergraduate-level introductory course on the historical changes of the sounds, writing system, grammar, and other aspects of the Chinese language. Topics include the historical phonology of Chinese, development of graphs (Hanzi), some topics of syntactic changes in texts, morphology, lexicography, cultural implication of language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 and CHI 308
CHI	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
CHI	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
CHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
CHI	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	514	Advanced Classical Chinese	Close readings in selected premodern texts, with focus on special grammatical features, and increased vocabulary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	520	Teaching of Chinese as a Second Language	Theory and practice of teaching Chinese, including presentation, interaction, and evaluation, with consideration given to cultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	535	Advanced Readings	Readings in primary and secondary sources in history, art, religious studies, economics, or other fields.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	543	Chinese Language and Linguistics	Analysis and discussion, within the framework of linguistic theory, of selected problems in Chinese phonetics, morphology, and syntax.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	585	Problems of Translation	Theories and practice of translation: strategies for handling a variety of Chinese texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	684	Internship		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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CHI	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
CHI	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
CHI	101	First-Year Chinese I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills. Standard dialect. 5 class hours. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	5.		
CHI	102	First-Year Chinese II	See CHI 101. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	5.		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre/Co-requisites: CHM 231 with C or better
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-requisites: CHM 237 with D or better; Co-requisites: CHM 234
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	
CHM	107	Chemistry and Society	General chemical principles and concepts presented in context of social and technological issues, e.g., energy, pollution, global warming, and others. This is a lecture course which may be combined with the laboratory CHM 108 for those interested in lab course credit. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Credit earned for CHM 101 and any combination of CHM 107 and 108 cannot be used simultaneously. General Studies: SQ (if taken with CHM 108) & G	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	SQ & G	
CHM	108	Chemistry and Society Laboratory	Experiments in chemical principles presented in chemistry and society lectures (CHM 107). Students must complete both CHM 107 and CHM 108 to receive an SQ (General Studies).	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisite: CHM 101 with C or better or ASU UPT with score of 75 or better or ALEKS with score of 50 or better or Pre or Co-requisite: MAT 170, MAT 210, MAT 251, MAT 265 or MAT 270 (with C or better if completed). Credit for CHM 113 or CHM 117 only
CHM	114	General Chemistry for Engineers	Chemical principles with emphasis toward engineering. Students without high school chemistry or chemical engineering majors must enroll in the CHM 113, 116 sequence instead of CHM 114. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisite: CHM 101 with D or better or ASU UMPT with score of 75 or better or ALEKS with score of 50 or better or Pre or Co-requisite: MAT 170, MAT 210, MAT 251, MAT 265 or MAT 270 (with D or better if completed)
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	
CHM	117	General Chemistry for Majors I	Atomic and molecular structure, properties and physical states of matter, chemical analysis, bonding, stoichiometry. Credit is allowed for only CHM 117 or 113. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisites: CHM 101 with C or better or ASU UMPT with score of 75 or higher or ALEKS with score of 50 or higher or Pre-or Co-requisite of MAT 170 (or MAT 210, 251, 265, 270); Chemistry or Biochemistry majors only. Credit for CHM 113 or CHM 117 only
CHM	118	General Chemistry for Majors II	Atomic and molecular structure, properties and physical states of matter, chemical analysis, bonding, stoichiometry. Credit is allowed for only CHM 118 or 115 or 116. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisites: CHM 117 with C or better; Chemistry and Biochemistry majors only
CHM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
CHM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	SQ	
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 115, CHM 116 or CHM 118 with D or better
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 233 or CHM 333 with a C or better
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	SQ	Pre/Co-requisites: CHM 231 with C or better
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre- or Co-requisites: CHM 233 (C or better if completed)
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: CHM 237 with D or better; Co-requisites: CHM 234
CHM	240	Introduction to Physical Chemistry	Introduces mathematical/computational methods in chemical kinetics, thermodynamics, quantum chemistry. Mathematical-based computer lab. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	CS	Pre-requisites: MAT 272 or MAT 267 with C or better
CHM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		Pre-requisites: Must be an Honors student
CHM	302	Environmental Chemistry	Explores major environmental issues, problems, and solutions from analytical and chemistry perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		

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CHM	303	Environmental Chemistry Laboratory	Lab in environmental chemistry to complement CHM 302. First-hand experience with sampling methods, analytical techniques, and environmental lab methods. Both CHM 303 and CHM 348 must be taken to secure L General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.	L	Pre-requisites: CHM 302 with D or better, or co-enrolled in CHM 302
CHM	325	Analytical Chemistry	Principles and methods of chemical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	326	Analytical Chemistry Laboratory	Experiments in chemical analysis. Fee.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	327	Instrumental Analysis	Principles of instrumental methods in chemical analysis. Electroanalytical and optical techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 325 and CHM 326 with C or better; Pre/Co-requisite: CHM 346 with C or better if completed
CHM	328	Instrumental Analysis Laboratory	Experiments in chemical analysis by electroanalytical and optical techniques. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		Pre-requisites: CHM 327 with a D or better, or be co-enrolled in CHM 327
CHM	332	General Organic Chemistry	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	333	Organic Chemistry for Majors I	Structures, reaction mechanisms and kinetics, and systematic syntheses of organic compounds. Credit is allowed for only CHM 333 or 231 or 233.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: Must be a Biochemistry or Chemistry student
CHM	334	Organic Chemistry for Majors II	Continuation of CHM 333. Credit is allowed for only CHM 334 or 234.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 333 with a C or better; Co-requisites: CHM 338
CHM	336	General Organic Chemistry Laboratory	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	337	Organic Chemistry Laboratory for Majors I	Emphasizes mechanisms, kinetics, and products of organic reactions. Credit is allowed for only CHM 337 or 237. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Biochemistry or Chemistry student; Pre- or Co-requisite: CHM 333 (with C or better if completed)
CHM	338	Organic Chemistry Laboratory for Majors II	Continuation of CHM 337. Credit is allowed for only CHM 338 or 238. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Biochemistry or Chemistry student; CHM 337 with C or better; Pre or Co-requisites: CHM 334
CHM	341	Elementary Physical Chemistry	Thermodynamics, equilibrium, states of matter, solutions, and chemical kinetics. For students in premedical, biological, and educational curricula.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 114, 116 or 118 with C or better; CHM 231, 233 or 333 with C or better; MAT 210, 251, 265 or 270 with C or better; PHY 101, 112 or 131 with C or better.
CHM	343	Physical Chemistry Laboratory	Physical chemistry experiments. Credit is allowed for only CHM 343 or both CHM 348 and 349. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Must be co-enrolled in CHM 341
CHM	345	Physical Chemistry I	Introduces quantum chemistry with application to electronic structure and dynamics of atoms and molecules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Prerequisites: CHM 240 with C or better or both MAT 272 and 274 with C or better
CHM	346	Physical Chemistry II	Introduces equilibrium and statistical thermodynamics. Laws of thermodynamics, equations of state, multicomponent chemical and phase equilibria, and electrochemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 345 with C or better
CHM	348	Physical Chemistry Laboratory I	Lab experiments in spectroscopy and computational chemistry. fee. To secure L General Studies credit the following must be taken: CHM 303 & CHM 348 or CHM 348 & CHM 349 & CHM 452.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	L	Pre/Co-requisite: CHM 345 with a C or better if completed
CHM	349	Physical Chemistry Laboratory II	Lab experiments in thermodynamics, electrochemistry, and computational chemistry. CHM 348, CHM 349 and CHM 452 must be taken to secure L General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	L	Pre/Co-requisites: CHM 346 with C or better if completed
CHM	392	Introduction to Research Techniques	Instrumental methods and philosophy of research by actual participation in chemical research projects. May be repeated for a total of 6 semester hours.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
CHM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	424	Separation Science	Basic theory and practical aspects of gas, liquid, ion-exchange, and gel-permeation chromatographies, and other important industrial and research techniques. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	433	Advanced Organic Chemistry I	Reaction mechanisms, reaction kinetics, linear free energy relationships, transition state theory, and Woodward-Hoffmann rules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	434	Advanced Organic Chemistry II	Continuation of CHM 433.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 433 or CHM 531 with C or better
CHM	435	Medicinal Chemistry	Principles of medicinal and pharmaceutical chemistry. Drug design, synthesis, and mechanism of action.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: BCH 361 (or BCH 461), BIO 353 and CHM 234 (or CHM 334) with a C or better; You may not enroll in CHM 435 if you have credit for CHM 535
CHM	452	Inorganic Chemistry Laboratory	Preparation and characterization of typical inorganic substances, emphasizing methods and techniques. CHM 348, CHM 349 and CHM 452 must be taken to secure L General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-2	L	Pre-requisites: CHM 453 with a D or better, or be co-enrolled in CHM 453
CHM	453	Inorganic Chemistry	Principles and applications of inorganic chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 341 or CHM 346 with C or better
CHM	460	Biological Chemistry	Structure and function of macromolecules and their involvement in the processing of energy and information by living cells.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 234 (or 334) with C or better; CHM 346 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	471	Solid-State Chemistry	Crystal chemistry, thermodynamics and electrochemistry of solids, nonstoichiometric compounds, diffusion and solid-state reactions, crystal growth, and selected topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	480	Methods of Teaching Chemistry	Organization and presentation of appropriate content of chemistry; preparation of reagents, experiments, and demonstrations; organization of stock rooms and laboratories; experience in problem solving. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	481	Geochemistry	Origin and distribution of the chemical elements. Geochemical cycles operating in the Earth's atmosphere, hydrosphere, and lithosphere.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 341(or 346) or GLG 321 with C or better
CHM	483	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	485	Meteorites and Cosmochemistry	Chemistry of meteorites and their relationship to the origin of the Earth, solar system, and universe.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		Pre-requisites: Must be an Honors student
CHM	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6	L	Pre-requisites: Must be an Honors student
CHM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		
CHM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-7		
CHM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
CHM	501	Current Topics in Chemistry	May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	521	Chemometrics	Overview of chemometric tools in analytical chemistry, including multivariate calibration, spectral deconvolution, and experimental design.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	523	Advanced Analytical Chemistry	Theoretical principles of analytical instrumentation and measurements.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	524	Separation Science	Addresses principles and applications for all areas of chemical separations. Emphasizes separations principles in microfluidics and its interface with nanotechnology and traditional electronic materials.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	525	Analytical Spectroscopy	Theoretical and practical considerations involving the use of optical instruments for chemical analyses.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.		
CHM	527	Electroanalytical Chemistry	Theoretical and practical considerations for modern electroanalytical chemistry, including voltammetry, potentiometry, and microelectrode analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.		Pre-requisites: CHM 346 with C or better. Credit is allowed for only CHM 527 or NAN 527
CHM	531	Advanced Organic Chemistry I	Reaction mechanisms, reaction kinetics, linear free energy relationships, transition state theory, molecular orbital theory, and Woodward-Hoffmann rules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	532	Advanced Organic Chemistry II	Organic mechanisms, thermodynamic and kinetic control, structure/activity relationships, isotope effects, multistep reactions, reactive intermediates, radical reactions, electron transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	535	Medicinal Chemistry	Principles of medicinal and pharmaceutical chemistry. Drug design, synthesis, and mechanism of action.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Students may not enroll in CHM 535 who have credit in CHM 435
CHM	537	Organic Reactions	Organic synthetic methodologies and important synthetic reactions emphasizing recently discovered reactions of preparative value. Protection/deprotection synthetic strategies; peptide synthesis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	541	Advanced Thermodynamics	Equilibrium thermodynamics. Chemical reactions, phase equilibria, and stability in multicomponent systems. Aqueous solutions and electrochemistry. Introduces statistical thermodynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Credit is allowed for only CHM 541 or MSE 524
CHM	543	Computational Chemistry	Provides basic concepts and practical experience in computational chemistry. Covers electronic structure methods and computer simulation techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	545	Quantum Chemistry	Wave and matrix formulation of quantum mechanics applied to the vibrational, rotational, and electronic states of polyatomic molecules. Hartree-Fock, electron correlation, and molecular orbital theory. Selection rules and introduction to group theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	546	Molecular Spectroscopy and Group Theory	Applies quantum mechanics to the general problem of the interaction of light with molecular systems. Angular momentum and group theory. Symmetry classifications. Overview of the formalism and experimental techniques in different resonant-based spectroscopies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	548	Chemical Kinetics and Dynamics	Experimental and theoretical aspects of time-dependent processes in chemistry. Topics include kinetics of chemical reactions, diffusion, and relaxation phenomena in ordered and disordered materials.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	549	Advanced Topics in Physical Chemistry	Various advanced and special topics in physical chemistry. Previous topics included: supercooled liquids and the glass transition, vibrational spectroscopy of solids, phase transitions and critical phenomena. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	552	Advanced Inorganic and Materials Synthesis Laboratory	Preparation and characterization of inorganic compounds and materials, emphasizing advanced methods and techniques of importance in inorganic and materials chemistry. Schlenk-line and glovebox manipulations, solvothermal syntheses, and gas-phase reactions.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		
CHM	553	Advanced Inorganic Chemistry	Principles of modern inorganic chemistry applied over the entire periodic system. Bonding theory, chemical reactivity, spectroscopic and magnetic properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	571	Structure, Bonding, and Symmetry in Materials	Principles of structural and materials chemistry, emphasizing crystal chemistry. Symmetry of periodic structures (space groups), factors determining bond lengths and coordination geometries, and the role of structure in determining physical properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	579	Topics in Inorganic and Materials Chemistry	May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	582	Topics in Geochemistry and Cosmochemistry	Topics of current interest for students in chemistry and other fields. Sampling of data and thought concerning phase equilibria, element distribution, meteorites, the Earth, and other planets. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-15		
CHM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-15		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	Pre-requisites: CHM 113 or CHM 117 with C or better
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	325	Analytical Chemistry	Principles and methods of chemical analysis.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	326	Analytical Chemistry Laboratory	Experiments in chemical analysis. Fee.	N	REC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	327	Instrumental Analysis	Principles of instrumental methods in chemical analysis. Electroanalytical and optical techniques.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	328	Instrumental Analysis Laboratory	Experiments in chemical analysis by electroanalytical and optical techniques. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	2.		
CHM	332	General Organic Chemistry	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	336	General Organic Chemistry Laboratory	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
CHM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		

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CHM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Normally followed by CHM 231. Cannot be used for major credit in chemical or biochemical sciences. Credit is allowed for only CHM 101 or 107. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	107	Chemistry and Society	General chemical principles and concepts presented in context of social and technological issues, e.g., energy, pollution, global warming, and others. This is a lecture course which may be combined with the laboratory CHM 108 for those interested in lab course credit. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Credit earned for CHM 101 and any combination of CHM 107 and 108 cannot be used simultaneously. General Studies: SQ (if taken with CHM 108) & G	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SQ & G	
CHM	108	Chemistry and Society Laboratory	Experiments in chemical principles presented in chemistry and society lectures (CHM 107). Students must complete both CHM 107 and CHM 108 to receive an SQ (General Studies).	N	LAB	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SQ	
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SQ	
CHM	480	Methods of Teaching Chemistry	Organization and presentation of appropriate content of chemistry; preparation of reagents, experiments, and demonstrations; organization of stock rooms and laboratories; experience in problem solving. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
CHP	500	Research Methods	Course on research methods in a specific discipline.	Y	DIS	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
CHP	501	Community Health Assessment and Analysis	Provides theory and practice in community assessment and analysis applicable to community health practice.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing (Comm Health Nursing) or Nursing (Comm Health Adv Prac) student; CHP 500 with B or better; Co-requisite: NUR 581
CHP	502	Community Health Program Planning and Evaluation	Utilizes planning and evaluation theory in planning programs to meet identified health needs of communities.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing (Comm Health Adv Prac) student; CHP 501 with B or better
CHP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
CIM	105	Introduction to the Concrete Industry	Overview of the history, career opportunities, job functions, and professional organizations in the concrete industry.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	2.		
CIM	106	Fundamentals of Concrete: Properties and Testing	Examines effects of concrete-making materials on the properties of fresh and hardened concrete. Concrete mixture proportioning calculations and analysis.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: CIM 105 with C or better; Co-requisite: STP 226
CIM	205	Concrete Construction Methods	Forming, shoring, placing and reinforcing operations. Transporting, placing, consolidating, finishing, jointing, and curing concrete for foundations and other structural members.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CIM 106 with C or better; CON 252
CIM	206	Application of Concrete in Construction	Detailed study of the many uses of concrete in the construction of buildings, pavements, and other facilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CIM 205 with C or better; CON 243 with C or better
CIM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CIM	305	Management of Concrete Products: Ordering and Delivering	Basic understanding of managing the order and delivery process common to all concrete products.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 206 with C or better; CON 221 with C or better
CIM	306	Management of Concrete Products: Production Facilities	Detailed study of the many uses of concrete in the construction of buildings, pavements, and other facilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 305 and CON 251 with C or better; CON 271
CIM	405	Concrete Problems: Diagnosis, Prevention, and Dispute	Diagnose and prevent problems related to concrete production, testing, construction, and performance.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 206 with C or better

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CIM	406	Concrete Industry Management Capstone	Intensive study of a problem appropriate to the major and the student's career interests. Lecture, student presentations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisites: Construction BS student; CIM 405 with C or better; COM 225
CIM	420	Senior Concrete Lab	Reintroduces fundamental lab procedures as well as advanced testing methods. Collect data, search for literature, analyze and report on conclusions.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 405 with C or better
CIM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CIS	105	Computer Applications and Information Technology	Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.	CS	
CIS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-3		
CIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		
CIS	220	Programming Concepts for Accountancy Majors	Introduces business computer programming. Uses programming languages such as Visual BASIC to teach proper programming style and practice. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		
CIS	235	Introduction to Information Systems	Survey course introducing the competitive and strategic uses of information systems, how information systems are transforming organizations and their management, and the issues, difficulties, and opportunities facing the technology professional and business manager today. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: CIS 105, 200 or 220 with C or better; MAT 210, 270, 211 or 271 with C or better; Credit allowed for only CIS 235 or CIS 236
CIS	236	Honors Introduction to Information Systems	Introduces strategic leveraging of IS solutions and surveys different facets of IS in order to gain an understanding of how business problems are addressed and opportunities realized.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.	CS	Pre-requisites: Must be an Honors student
CIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Accountancy or Computer Information Systems BS or PRE student
CIS	300	Web Design and Development	Focuses on Web site development, including target audience, image presentation, page/content topic organization, site navigational functionality, implementation needs, and future needs. Web site design and development practice using business software products.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: Minimum 2.0 ASU cumulative GPA AND minimum 56 earned hours, OR be post-bacc undergraduate, or be non-degree seeking student or be graduate student.
CIS	335	Visual Paradigms for Information Systems Development	Uses visual programming languages such as Visual BASIC to implement data structures, file structures, and interfaces in business information systems. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: W. P. Carey ACC BS student having completed CIS 220 OR CIS BS student having completed CSE 100, AND ACC 241 AND ECN 221 with a grade of C or greater
CIS	340	Object-Oriented Modeling and Programming	Object-oriented modeling of business information systems. Abstract data types and object-oriented programming using a language such as C#. Fee.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: Must be W. P. Carey CIS BS student; AND must have completed ACC 241, CIS 235 or CIS 236, CSE 181 or 182, ECN 221 with a C or greater
CIS	360	Business Database Concepts	Database theory, design, and application, including the entity-relationship model; the relational, hierarchical, and network database models; and query languages. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: W. P. Carey Accountancy BS student, and CIS 105 or CIS 220, ACC 231 and ACC 241 with a grade of C or better; OR W. P. Carey Computer Information Systems BS student, and CIS 235 with a grade of C or better.
CIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Min 2.0 ASU cum GPA and min 56 earned hours, OR be post-bacc undergraduate, or be non-degree seeking student or be graduate student.
CIS	425	Electronic Commerce Strategy	Key business strategies and technology elements of contemporary electronic commerce. Covers Web design and interactions between Web pages and databases. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: W. P. Carey Accountancy BS or Computer Information Systems BS student; CIS 360 with C or better
CIS	430	Networks and Distributed Systems	Advanced topics such as communications protocols, distributed systems, network security and client-server systems; applications based on platforms such as .NET and networked UNIX. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: W. P. Carey Computer Information Systems student; ACC 330 or 444; CIS 340 or 410 with C or better; Pre/Co-requisite: CIS 360
CIS	440	Systems Design and Electronic Commerce	Systems design for organizational and electronic commerce systems; use of project management and systems analysis and design tools.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.	L	Pre-requisites: W.P. Carey Computer Information Systems BS student; CIS 360 and CIS 430 with C or better
CIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: W.P. Carey CIS BS student
CIS	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Information Systems	1-6		
CIS	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Information Systems	1-6	L	Pre-requisites: Must be an Honors student
CIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: W.P. Carey ACC BS or CIS BS student
CIS	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-6		
CIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-7		Pre-requisites: W.P. Carey CIS BS student

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CIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-3		Pre-requisites: W.P. Carey CIS BS student
CIS	502	Information Systems	Organizational, strategic, and technical issues of the management of information. Evaluation, design, and use information systems as competitive advantage.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: W.P.Carey MBA student
CIS	505	Object-Oriented Modeling and Programming	Object-oriented modeling of business information systems, abstract data types and object-oriented programming using a visual language.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey graduate students only
CIS	506	Business Database Systems	Hierarchical, network, relational, and other recent data models for database systems. Processing issues such as concurrency control, query optimization, and distributed processing.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	512	Intelligent Decision Systems and Knowledge Management	Definition, description, construction, and evaluation of computer-based decision systems.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	515	Management Information Systems	Systems theory concepts applied to the collection, retention, and dissemination of information for management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	520	Systems Design and Evaluation	Methodologies of systems analysis and design. Issues include project management, interface, organizational requirements, constraints, documentation, implementation, control, and performance evaluation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	530	Information Systems Development	Object-oriented and interprocess communication and control concepts for information systems; applications based on languages such as C++ and platforms such as networked UNIX.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	535	Distributed and Mixed-Media Information Systems	Modern communications protocols for wireless and mobile computing, overview of network and distributed database management systems, overview of storage and multimedia delivery issues, and shared virtual reality technologies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: Specific W.P. Carey Graduate student
CIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: Specific W.P. Carey Graduate student
CIS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		

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CIS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: W.P. Carey Info Systems PhD student
CIS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-15		
CIS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Information Systems	1-15		
CIS	105	Computer Applications and Information Technology	Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	CS	
CLS	100	Introduction to Clinical Laboratory Sciences	Introduces the field of clinical laboratory sciences. Required for Clinical Laboratory Sciences majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
CLS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
CLS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
CLS	310	Principles of Clinical Chemistry I	Theory and application of principles of clinical chemistry, with emphasis on lab techniques, pathophysiology, methods of analysis, and assessment of procedure. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
CLS	320	Principles of Clinical Microbiology I	Theory and application of principles of clinical microbiology with emphasis on isolation and identification of medically significant fungi and bacteria. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
CLS	330	Principles of Clinical Hematology I/Body Fluids	Theory and application of principles in hematology, with emphasis on techniques to evaluate blood dyscrasias and analyze body fluids.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
CLS	410	Principles of Clinical Chemistry II	Continuation of CLS 310 with emphasis on principles of advanced clinical chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
CLS	411	Advanced Applications of Clinical Chemistry	Clinical application of theory/techniques from CLS 310 and 410. Emphasizes operation of common lab instrumentation and clinical correlation. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	420	Principles of Clinical Microbiology II	Disease mechanisms and identification of medically significant parasites, Mycobacteria, Actinomycetes, Chlamydia, Rickettsia, Mycoplasma, and viruses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
CLS	421	Advanced Applications of Clinical Microbiology	Practical lab application of the principles of specimen collection, processing, detection, identification, and antimicrobial testing of medically significant bacteria, fungi, and parasites. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	430	Principles of Clinical Hematology II/Hemostasis	Theory and applications of principles in hematology with emphasis on etiology, pathophysiology, clinical manifestations, and treatment of blood dyscrasias/hemostatic defects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		

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CLS	431	Advanced Applications of Clinical Hematology	Practical lab application of methods/techniques used to evaluate and diagnose blood dyscrasias/hemostatic defects. Applied techniques in body fluid analysis. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	440	Principles of Clinical Immunology/Immunohematology	Theoretical and practical application of clinical immunology and immunohematology. Emphasizes serological techniques that aid disease diagnosis and blood donor selection.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	441	Advanced Applications of Clinical Immunology/Immunohematology	Practical lab application of the principles of serological methods used in diagnosing disease and selecting blood components for transfusion therapy. Minimum 135 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
CLS	450	Principles of Clinical Laboratory Administration	Principles of management, emphasizing the clinical lab. Basic management process, personnel supervision, identification, and allocation of resources. Both CLS 450 and 460 must be taken to secure L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	
CLS	460	Principles of Clinical Laboratory Education	Principles of learning, with application to the development of instructional objectives, strategies, and evaluation for teaching-learning situations in the lab. Both CLS 450 and 460 must be taken to secure L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	
CLS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
CMN	551	Democracy and Power in Organizations	Examines structural, historical, relational, and symbolic dimensions of organizational communication and discourses that foster or impede communication advocacy.	N	LEC	N	OPT	INACTIVECollege Human Services	INACTIVE Department of Communication Studies	3.		Pre-requisites: Communication Studies Master of Arts student; CMN 502 or COM 502 with C or better
CMN	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	124	Media and Culture	Introduces contemporary intercultural issues as expressed through various media in American society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	C	
CMN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
CMN	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites:Must have completed ENG 101, or ENG 105 with a grade of C or greater
CMN	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and purposeful organization of public communication. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Prerequisites:Must have completed ENG 101 or 105 with a grade of C or greater
CMN	230	Small Group Communication	Principles and processes of small group communication, attitudes and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
CMN	308	Empirical Research Methods in Communication	Examines social science approaches to the study of communication, including experimental, survey, descriptive, and other quantitative approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: ENG 101 or 105 completed with C or better; Cumulative GPA of 2.0 or greater; Students majoring in Communication on the Tempe campus should take COM 308
CMN	309	Rhetorical, Interpretive, and Critical Methods in Communication	Examines humanistic and qualitative approaches to communication. Introduces textual, interactional and ethnographic methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have GPA of 2.0 or greater
CMN	310	Relational Communication	Examines communication processes as they relate to relationship development, maintenance, and termination.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Must have a GPA of 2.0 or greater
CMN	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: must have a GPA of 2.0 or greater
CMN	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	C	Pre-requisites: Must have a GPA of 2.0 or greater
CMN	320	Communication and Consumerism	Critical evaluation of messages designed for public consumption. Perceiving, evaluating, and responding to political, social, and commercial communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: must have a GPA of 2.0 or greater
CMN	321	Rhetorical Theory and Research	Historical development of rhetorical theory and research in communication, from classical antiquity to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or HU	Pre-requisites: must have a GPA of 2.0 or greater;and completed ENG 101 or 105 with a C or greater
CMN	324	Rhetoric and Media Criticism	Critical examination of media arts, including cinema, television, and video. Applies rhetorical, textual, and interpretive methods of criticism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	325	Advanced Public Speaking	Social and pragmatic aspects of public speaking as a communicative system; strategies of rhetorical theory and the presentation of forms of public communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater
CMN	329	Persuasion	Variables that influence and modify attitudes and behaviors of message receivers, including analysis of theories, research, and current problems.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater

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CMN	353	Professional Communication	Introduces both verbal and written professional communication styles and technologies in preparation for communication-related internships and careers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	371	Cross-Cultural Communication Perspectives	Explores different cultures' approaches to theories of and practices in social interaction and public discourse.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater
CMN	382	Classroom Apprenticeship	Nongraded credit for students extending their experience with a content area by assisting with classroom supervision in other CMN courses. Maximum 3 semester hours each semester.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
CMN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisites: must have a GPA of 2.0 or greater
CMN	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: must have GPA of 2.0 or greater.
CMN	414	Crisis Communication	Role of communication in crisis development and intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater
CMN	416	Gender, Race, Colonialism, and Media	Explores how the mass media constructs gender and race and perpetuates colonial views of minorities and varied nationalities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	417	Communication and Aging	Critical study of changes in human communicative patterns through the later adult years, with attention on intergenerational relationships and self-concept functions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
CMN	421	Rhetoric of Social Issues	Critical rhetorical study of significant speakers and speeches on social issues of the past and present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU	Pre-requisites: must have a GPA of 2.0 AND have completed CMN 321 with a C or greater, or be currently enrolled in CMN 321
CMN	422	Advanced Argumentation	Advanced study of argumentation theories and research as applied to public forums including: political, business, and legal contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: Must be a Junior and have a GPA of 2.0 or greater, AND completed ENG 101 or 105 with a grade of C or greater
CMN	424	Television Studies and Criticism	Surveys critical and historical approaches to television as a medium; to television research; and to television's effects.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater or be currently enrolled.
CMN	429	Semiotics and Visual Communication	Semiotic analysis of mediated forms of communication, including film, television, and photography. Includes the political and aesthetic dimensions of images.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater or be currently enrolled.
CMN	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater
CMN	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
CMN	451	Employee Participation Processes in Organizations	Communication principles and practices associated with employee empowerment, team-based organizing, and similar employee involvement processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater AND be enrolled in CMN 308 OR 309 or completed CMN 308 or 309 with a grade of C or greater.
CMN	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	454	Rhetorical and Critical Approaches to Public Relations	An historical and contemporary account of how public relations messages build corporate identities and persuade audiences by shaping public values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater or be currently enrolled in CMN 309.
CMN	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate and image creation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	457	New Media	Explores how new communication and information technologies affect communication and culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.0 or greater AND completed CMN 309 with a grade of C or greater.
CMN	463	Cultural and Intercultural Communication Theory and Research	Survey and analysis of major theories and research dealing with communication within cultures and between people of different cultural backgrounds.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: CMN 308 or 309 (or COM 308 or COM 309) with C or better or currently enrolled
CMN	465	Intercultural Communication Workshop	Experientially based study of communication among members of different cultures designed to help students improve their intercultural communication skills.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
CMN	471	International Communication	Explores the political, economic, sociocultural, and communicative dimensions of mediated communication across borders and the processes of globalization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	Pre-requisites: Minimum 2.0 GPA; CMN 463 or COM 463 with C or better
CMN	475	Nonverbal Communication Theory and Research	Critical study of theories and research concerning nonlinguistic aspects of communication. Examines functions of nonverbal behaviors in various communication contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
CMN	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
CMN	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CMN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
CMN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
CMN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
CMN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
CMN	502	Theory and Practice in Communication and Persuasion	Theoretical exploration of communicative and persuasive practices as applied in various contexts. Surveys classical, modern, and contemporary theories of persuasion.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	505	Methods in Applied Communication Research	Examines the intellectual, practical, and ethical dimensions of engaging in applied research. Emphasizes empirical and quantitative methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	506	Humanistic Inquiry and Field Research in Communication	Examines interpretive, critical, and rhetorical approaches to communication and advocacy, including hermeneutics, ethnography, and cultural studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	515	Ethical Issues in Communication Advocacy	Examines the ethical issues or concerns related to communication advocacy. Variable topics; examines research, theory, and/or practice.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	516	Mediation and Dispute Resolution	Examines advocacy's role in fair negotiation and effective and successful dispute resolution. Examines research, theory, and/or practice.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	520	Communication Campaigns	Explores public communication strategies aimed at advocating for general or specific audiences and/or for particular issues and causes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Communication Studies Master of Arts student; CMN 502 or COM 502 with C or better
CMN	522	Argumentation and Advocacy	Introduces various models of argumentation and their applications to various spheres of advocacy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	531	Communication and Social Change	Examines human communication and technologies of communication as agents of social change within groups, communities, organizations, and/or cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	532	Advocacy in Interpersonal Settings	Examines particular relational contexts in which advocacy plays a pronounced role (e.g., personal, family, and service provider relationships).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	550	Advocacy in Organizational Settings	Examines issues of upward influence, the expression of dissent, and grievance systems within organizational contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	557	Communication and Technology	Assesses technology's role in the social dynamics of human interaction. Emphasizes the impact of technology with regard to communication advocacy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	565	Globalization and Advocacy	Explores the forces leading to increased intergroup contact and their impact on social, economic, and political dynamics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	570	Communication and Advocacy in Social Context	Variable topics course exploring the intersection of communication and advocacy in specific contexts not addressed in other elective courses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
CMN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
CMN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		Pre-requisite: Communication Studies Master of Arts student
CMN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	RSC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisite: Communication Studies Master of Arts student

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CMN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1.		Pre-requisite: Communication Studies Master of Arts student
CMN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisite: Communication Studies Master of Arts student
CMN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		Pre-requisite: Communication Studies Master of Arts student
COE	501	Introduction to Research and Evaluaton in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	502	Introduction to Data Analysis	Descriptive statistics, visual approaches, estimation, and inferential methods for univariate and bivariate educational research problems. Experience using statistical software.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	503	Introduction to Qualitative Research	Terminology, historical development, approaches (including ethnography, ethnomethodology, critical theory, grounded theory, and hermeneutics), and qualitative versus quantitative social sciences; methods of inquiry.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
COE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		
COE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		
COE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
COE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
COE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
COE	501	Introduction to Research and Evaluaton in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
COE	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	
COM	110	Elements of Interpersonal Communication	Demonstration and practice of communicative techniques in establishing and maintaining interpersonal relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a GPA of greater than or equal to 2.25
COM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisite: Maximum 24 earned hours
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a GPA of greater than or equal to 2.50
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: must have completed ENG101, ENG105, or ENG107 with a grade of C or greater
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	263	Elements of Intercultural Communication	Basic concepts, principles, and skills for improving communication among persons from different minority, racial, ethnic, and cultural backgrounds.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C & G	Pre-requisite: Minimum 2.25 GPA
COM	271	Voice Improvement	Intensive personal and group experience to improve normal vocal usage, including articulation and pronunciation.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	281	Communication Activities	Nongraded participation in forensics or interpretation cocurricular activities. Maximum 3 semester hours each semester.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		
COM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	298	Honors Directed Study		N	PRA	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		Pre-requisites: Must be an Honor student
COM	300	Communication in Interdisciplinary Studies	Examines and analyzes communication in the context of other academic disciplines. Open to BIS majors only.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: BIS student; Minimum Sophomore standing; Minimum 2.00 GPA; COM 100 and COM 225 with C or better or COM 259 with C or better
COM	301	Introductory Theories and Principles of Communication: Communication in Relationships, Organizations	Integrated introduction to the theories and principles of communication in public, interpersonal, and organizational contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3-9		
COM	308	Advanced Research Methods in Communication	Advanced communication research methods, including quantitative, qualitative, and critical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: Must have a GPA of 2.5 or greater; Must have completed COM 207 with a grade of C or greater; Must have completed a Math pre-requisite
COM	310	Relational Communication	Explores communication issues in the development of personal relationships. Current topics concerning communication in friendship, romantic, and work relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 with C or better
COM	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a GPA of 2.50 or greater; Must have completed COM 100 with a grade of C or greater
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	317	Nonverbal Communication	Study of communication using space, time, movement, facial expression, touch, appearance, smell, environment, objects, voice, and gender/cultural variables. Not open to students with credit in COM 294 ST: Beyond Words.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA of 2.50 or greater
COM	319	Persuasion and Social Influence	Variables that influence and modify attitudes and behaviors of message senders and receivers, including analysis of theories, research, and current problems.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a Cumulative GPA of 2.50 or greater; Communication students must have completed COM 207 with a grade of C or greater; Non-Communications students must have completed a specified statistics course with a grade of C or greater
COM	320	Communication and Consumerism	Critical evaluation of messages designed for public consumption. Perceiving, evaluating, and responding to political, social, and commercial communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.50 GPA

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COM	321	Rhetorical Theory and Research	Historical development of rhetorical theory and research in communication, from classical antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	(L or HU) & H	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 100 with a grade of C or greater
COM	323	Communication Approaches to Popular Culture	Critical analysis of popular culture within social and political contexts; emphasizes multicultural influences and representations in everyday life.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	C	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 100 with a grade of C or greater
COM	325	Advanced Public Speaking	Social and pragmatic aspects of public speaking as a communicative system; strategies of rhetorical theory and the presentation of forms of public communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 225 with a grade of C or greater
COM	326	Court Room Oratory	Increases knowledge and appreciation of the role of communication in the development of legal and public policies.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	341	Social Contexts for Performance	Adaptation and performance of literature for the community outside the university. Research into the practical uses of performed literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	344	Performance of Oral Traditions	Cultural beliefs and values studied through ethnographic research and performance of personal narratives, folklore, myths, legends, and other oral traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU & C	Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C & G	Pre-requisites: Minimum 2.50 GPA; COM 263 with C or better
COM	382	Classroom Apprenticeship	Nongraded credit for students extending their experience with a content area by assisting with classroom supervision in other COM courses (maximum 3 semester hours each semester).	N	PRA	N	YGB	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings. Open to BIS majors only.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU & C	Prerequisites : Interdisciplinary Studies or Business Communication student; Sophomore or higher; Minimum GPA of 2.00; COM 100 and COM 225 OR only COM 259 with a C or better
COM	404	Research Apprenticeship	Direct research experience on faculty projects. Student/faculty match based on interests.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	407	Advanced Critical Methods in Communication	Examines critical approaches relevant to communication, including textuality, social theory, cultural studies, and ethnography.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 308 with a grade of C or greater
COM	408	Quantitative Research Methods in Communication	Advanced designs, measurement techniques, and methods of data analysis of communication research.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA greater than or equal to 2.50; Must have completed COM 308 with a C or better
COM	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 207 with C or better
COM	414	Crisis Communication	Role of communication in crisis development and intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	421	Rhetoric of Social Issues	Critical rhetorical study of significant speakers and speeches on social issues of the past and present.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 308 with a grade of C or greater; Must have completed either COM 321 or 323 with a grade of C or greater
COM	426	Political Communication	Theories and criticism of political communication; including campaigns, mass persuasion, propaganda, and speeches. Emphasis on rhetorical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.50 GPA
COM	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	441	Performance Studies	Theory, practice, and criticism of texts in performance. Emphasizes the interaction among performer, text, audience, and context.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Minimum 2.50 GPA; COM 241 and COM 308 with C or better
COM	442	Identity, Performance, and Human Communication	Explores communication dimensions of self and others as performance. Examines topics that include gender, race, sexuality, age, and ethnicity through performance.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: COM 225 (or COM 241); Minimum 2.50 GPA
COM	445	Narrative Performance	Theory and practice of performing narrative texts (e.g., prose fiction, oral histories, diaries, essays, letters). Includes scripting, directing, and the rhetorical analysis of storytelling.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Minimum 2.50 GPA; COM 241 with C or better
COM	446	Performance of Literature Written by Women	Explores, through performance and critical writing, literature written by women.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	(L or HU) & C	Pre-requisite: Minimum 2.50 GPA
COM	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 308 with a grade of C or greater
COM	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 250 with a grade of C or greater
COM	463	Intercultural Communication Theory and Research	Survey and analysis of major theories and research dealing with communication between people of different cultural backgrounds, primarily in international settings.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & G	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	465	Intercultural Communication Workshop	Experientially based study of communication between members of different cultures designed to help students improve their intercultural communication skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	GNA	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisites: Communications students only and have completed 56 or more hours; Minimum cumulative GPA of 2.50; COM 225 and COM 308 with a C or better
COM	492	Honors Directed Study		Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		Pre-requisites: Must be an Honors student
COM	493	Honors Thesis		N	PRA	N	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6	L	Pre-requisites: Must be an Honors student
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		Pre-requisite: Minimum 2.50 GPA
COM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		
COM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-7		
COM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisites: Must have a minimum cumulative GPA of 2.50
COM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	501	Research Methods in Communication	Critical analysis of systems of inquiry in communication, focusing on the identification of variables and approaches to conducting research in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	504	Theories and Models in Communication	Theory construction, metatheoretical concerns, models, construct definition, and comparative analysis of current theories in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	508	Quantitative Research Methods in Communication	Empirical research designs, measurements, and statistical strategies and techniques in analyzing and evaluating experimental and descriptive research in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must be a Graduate Communications student
COM	509	Qualitative Research Methods in Communication	Qualitative research methods, including interviewing, field methods, and other nonquantitative techniques for analyzing communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must be a Graduate Communications student
COM	521	Rhetorical Criticism of Public Discourse	History and significance of rhetorical theory and criticism in the analysis of public discourse.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications Graduate student
COM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	PRA	Y	Z2	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	604	Theory Construction in Communication	Review and analysis of philosophical problems inherent in communicative research and of metatheories designed to deal with these problems.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	607	Contemporary Rhetorical Methods	Analysis of issues in the practice of rhetorical communication research, including criticism and scholarship.	N	SEM	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	608	Multivariate Statistical Analysis of Data in Communication	Statistical analysis of communication research data. Multivariate procedures used in communication research and methods of causal analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	609	Advanced Qualitative Research Methods in Communication	Analysis of issues in the practice of qualitative communication research, including data gathering, fieldwork issues, analysis strategies, and reporting results.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications PhD student
COM	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications Graduate student
COM	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisites: Communications PhD student; COM 600 or COM 608 with B or better; COM 601 or COM 700 with B or better
COM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-15		
COM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1.		
COM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	PRA	Y	Z2	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-15		
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	110	Elements of Interpersonal Communication	Demonstration and practice of communicative techniques in establishing and maintaining interpersonal relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a GPA of greater than or equal to 2.25
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of greater than or equal to 2.50
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of greater than or equal to 2.50
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: must have completed ENG101, ENG105, or ENG107 with a grade of C or greater
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: must have completed ENG101, ENG105, or ENG107 with a grade of C or greater
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	263	Elements of Intercultural Communication	Basic concepts, principles, and skills for improving communication among persons from different minority, racial, ethnic, and cultural backgrounds.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisite: Minimum 2.25 GPA
COM	300	Communication in Interdisciplinary Studies	Examines and analyzes communication in the context of other academic disciplines. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: BIS student; Minimum Sophomore standing; Minimum 2.00 GPA; COM 100 and COM 225 with C or better or COM 259 with C or better
COM	301	Introductory Theories and Principles of Communication: Communication in Relationships, Organizations	Integrated introduction to the theories and principles of communication in public, interpersonal, and organizational contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3-9		
COM	308	Advanced Research Methods in Communication	Advanced communication research methods, including quantitative, qualitative, and critical approaches.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have a GPA of 2.5 or greater; Must have completed COM 207 with a grade of C or greater; Must have completed a Math pre-requisite
COM	310	Relational Communication	Explores communication issues in the development of personal relationships. Current topics concerning communication in friendship, romantic, and work relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 with C or better
COM	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of 2.50 or greater; Must have completed COM 100 with a grade of C or greater
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	317	Nonverbal Communication	Study of communication using space, time, movement, facial expression, touch, appearance, smell, environment, objects, voice, and gender/cultural variables. Not open to students with credit in COM 294 ST: Beyond Words.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a cumulative GPA of 2.50 or greater
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisites: Minimum 2.50 GPA; COM 263 with C or better
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisites: Minimum 2.50 GPA; COM 263 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	Prerequisites : Interdisciplinary Studies or Business Communication student; Sophomore or higher; Minimum GPA of 2.00; COM 100 and COM 225 OR only COM 259 with a C or better
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	Prerequisites : Interdisciplinary Studies or Business Communication student; Sophomore or higher; Minimum GPA of 2.00; COM 100 and COM 225 OR only COM 259 with a C or better
COM	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 207 with C or better
COM	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisite: Minimum 2.50 GPA
COM	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 308 with a grade of C or greater
COM	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 250 with a grade of C or greater
COM	492	Honors Directed Study		Y	PRA	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6		Pre-requisites: Must be an Honors student
COM	493	Honors Thesis		N	PRA	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		Pre-requisite: Minimum 2.50 GPA
CON	100	Introduction to Construction	Introduces construction industry sectors and professionals. Additional content includes developing personal competencies required of construction professionals.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	2.		
CON	101	Construction and Culture: a Built Environment	Analyzes the cultural context of construction, emphasizing its centrality in the evolution and expansion of built environments as expressions of ethical and historical value systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	HU & H & G	
CON	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-3		
CON	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	221	Applied Statics	Vectors, forces and moments, force systems, equilibrium, analysis of basic structures and structural components, friction, centroids, and moments of inertia.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: PHY 111 and PHY 113 and MAT 265 (or MAT 270) with C or better
CON	223	Strength of Materials	Analyzes strength and rigidity of structural members in resisting applied forces. Stress, strain, shear, moment, deflections, combined stresses, and connections.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: CON 221 with C or better
CON	241	Surveying	Theory and fieldwork in construction and land surveys.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: MAT 265 or MAT 270 with C or better
CON	243	Heavy Construction Equipment, Methods, and Materials	Emphasizes Horizontal construction. Fleet operations, maintenance programs, methods, and procedures to construct tunnels, roads, dams, and the excavation of buildings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	251	Microcomputer Applications for Construction	Applies the microcomputer as a problem-solving tool for the constructor. Uses spreadsheets, information management, and multimedia software. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: MAT 265 or MAT 270 with C or better
CON	252	Building Construction Methods, Materials, and Equipment	Emphasizes Vertical construction. Methods, materials, codes, and equipment used in building construction corresponding to the division of the CSI Master Format.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	271	Construction Safety	Safety procedures and equipment. OSHA requirements for construction. Biological aspects of construction safety.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CON 252 with D or better; CON 243 with C or better
CON	273	Electrical Construction Fundamentals and Project Management	Electrical construction, design, estimating, scheduling and project management. Electrical safety, blueprints and symbols, theory, sequence of installation. National Electrical Code (NEC).	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	296	Field Internship	Participation as interns on construction projects to observe and experience the daily activities. fee	N	PRA	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1.		Pre-requisites: Construction students only
CON	301	Megaprojects and Their Impacts on Society	World survey of construction megaprojects and their impacts on the environment, technology, local and global economies, and local culture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering BS/BSE students and must have completed COM 225 with a grade of D or better or be currently enrolled
CON	302	Construction Workforce Issues	Examines issues and forces that have shaped today's construction workforce, including relations among gender, racial, ethnic, and class groups.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering BS/BSE students and must have completed COM 225 with a grade of D or better or be currently enrolled
CON	310	Testing of Materials for Construction	Structural and behavioral characteristics, engineering properties, measurements, and application of construction materials. Not open to engineering students.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: Construction BS student; CON 221 with C or better; CON 223 with C or better
CON	341	Surveying	Theory and fieldwork in construction and land surveys. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		

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CON	345	Mechanical Systems	Design parameters and equipment related to heating and cooling systems for mechanical construction. Biorelated aspects of mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: Construction BS student; PHY 111 (or PHY 121) with C or better; PHY 113 (or PHY 122) with C or better; CON 221 with C or better; CON 252
CON	377	Residential Construction Production Procedures	Process used in residential construction. How a house is built: design, permits, scheduling, codes, contracting, site management, mechanical/electrical.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS or Design BSD student; CON 221 with C or better; CON 252
CON	383	Construction Estimating	Analyzes construction drawings and specifications. Methods used in estimating process. Quantity surveying techniques for CSI divisions. Discusses ethical practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisites: Construction BS or Housing & Urban Development BSD students; CON 243 and CON 221 with a C or better; CON 252 with a D or better
CON	389	Construction Cost Accounting and Control	Nature of construction cost. Depreciation and tax theory and variable equipment costs. Cash flow theory, investment models, profitability, and analysis. Computer applications. Funding sources and arrangements. Builder's insurance.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	CS	Pre-requisites: Engineering and Design BS and BSD students; CON 221 with C or better; CON 251 with D or better
CON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		Pre-requisite: Engineering BS or BSE student
CON	424	Structural Design	Economic use of concrete, steel, and wood in building and engineered structures. Design of beams, columns, concrete formwork, and connections.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering Construction BS students; CON 223 with C or better; Pre or Co-requisites: CON 310 (with C or better if completed)
CON	446	Marketing for Construction	Provides key marketing practices to include strategic planning, marketing collateral, networking, business development, and interview preparation for project pursuits. Covers all aspects of service-based marketing topics and practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: COM 225; CON 221 with C or better
CON	450	Geotechnical Applications for Construction	Soil formation, engineering properties and use as building materials. Soil's influence on construction of built environment, including specifications and biological aspects. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS students only; Must have completed CON 310 with a grade of D or greater or be currently enrolled
CON	453	Construction Project Management I	Introduces building information modeling, including current computer programs and methodologies for advanced project deliveries.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 271, or CON 371; CON 383 with C or better; Co-requisite: CON 495
CON	455	Construction Project Management II	Advanced topics in administrative procedures, planning processes, and coordination required to successfully complete construction projects on time and budget.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 495 and CON 453 with C or better
CON	468	Mechanical and Electrical Estimating	Analysis and organization of performing a cost estimate for both mechanical and electrical construction projects. Computer usage.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 273; CON 345 and CON 383 with C or better
CON	471	Mechanical and Electrical Project Management	Specialty contracts and agreements, scheduling, material handling, labor unit analysis, and job costing for mechanical and electrical construction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Prerequisite: Construction BS student; CON 453 with C or better
CON	472	Development Feasibility Reports	Integrates economic location theory, development cost data, market research data, and financial analysis into a feasibility report.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	L	Pre-requisite: Construction BS or Design BSD student; REA 380
CON	477	Residential Construction Business Practices	Topics addressed include development, marketing, financing, legal issues, and sales.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering BS or Design BSD student; MKT 382 or MKT 395 with D or better OR CON 446 with C or better; CON 377 with C or better; CON 389 with C or better
CON	483	Advanced Building Estimating	Concepts of pricing and markup, development of historic costs, life cycle costing, change order and conceptual estimating.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 383 with C or better
CON	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		Pre-requisites: Construction BS students; Must have completed CON296 with D or better or currently enrolled
CON	486	Heavy Construction Estimating	Methods analysis and cost estimation for construction of highways, bridges, tunnels, dams, and other engineering works.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS Student; Must have a C or better in CON 383
CON	492	Honors Directed Study		N	RSC	N	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-6		
CON	493	Honors Thesis		N	RSC	N	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-6	L	Pre-requisites: Must be an Honors student
CON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	495	Construction Planning and Scheduling	Various network methods of project scheduling, such as AOA, AON Pert, bar-charting, line-of-balance, and VPM techniques. Microcomputers used for scheduling, resource allocation, and time/cost analysis. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	CS	Pre-requisites: Engineering and Design BS and BSD students only; Must have completed CON 383 and CON 389 with a grade of C or better
CON	496	Construction Contract Administration	Surveys administrative procedures of general and subcontractors. Studies documentation, claims, arbitration, litigation, bonding, insurance, and indemnification. Discusses ethical practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	L	Pre-requisites Engineering CON BS students; Must have completed COM 225 with a D or better, and CON 453 with a C or better
CON	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-7		
CON	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-3		

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CON	501	Construction Research Methods	Data collection methodologies, applied parametric and nonparametric statistics, data analysis techniques, technical writing, and data presentation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	533	Strategies of Estimating and Bidding	Explores advanced concepts of the estimating process, such as modeling and statistical analysis, to improve bid accuracies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering MS/MSE/PHD graduate students
CON	540	Construction Productivity	Productivity concepts. Data collection. Analysis of productivity data and factors affecting productivity. Means for improving production and study of productivity improvement programs.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction MS student; CON 495 with B or better
CON	543	Construction Equipment Engineering	Analyzes heavy construction equipment productivity using case studies. Applies engineering fundamentals to the planning, selection, and utilization of equipment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction MS students
CON	545	Construction Project Management	Theory and practice of construction project management. Roles of designer, owner, general contractor, and construction manager.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction MS student; CON 495 with B or better
CON	547	Strategic Planning	Business planning process of the construction enterprise. Differences between publicly held and closely held businesses and their exposure.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	551	Alternative Project Delivery Methods	Design/construction interaction; conceptual estimation and scheduling; the RFQ/RFP process; legal, insurance, risk allocation issues; procurement and selection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	554	Trenchless Construction Methods	Theory and practice of trenchless construction methods. Types of equipment, roles of site personnel, engineering design, contractual issues, and safety. Lecture, class projects, and site visits. Knowledge of heavy construction equipment, methods, and materials required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	561	International Construction	Investigation of the cultural, social, economic, political, and management issues related to construction in foreign countries and remote regions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering Graduate student
CON	563	Facility Management Fundamentals	Operations and maintenance, environmental issues, computerized management and maintenance systems, strategic planning, asset management, construction and design, and LEED/LEED-EB.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	565	Information Measurement Theory I	Simplistic, logical explanations of construction and other industries. State-of-the-art supply chain, profit maximizing, and efficient practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	567	Advanced Procurement Systems	Development of multicriteria decision procurement model for selecting the performing contractor.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	570	Cleanroom Construction I	Design issues for cleanroom facilities; the construction's viewpoint including planning, structures, mechanical, and tool installation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	571	Cleanroom Construction II	Construction issues for cleanroom facilities, including scheduling, cost estimating, project management, mechanical, safety certification, and tool hook-up.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: CON 570 with C or better
CON	575	Information Technology in Construction	Use of information technology in the construction enterprise for improved communications, process modeling, and decision making.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	589	Construction Company Financial Control	Financial accounting and cost control at the company level in construction companies. Accounting systems. Construction project profit calculations. Financial analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering MS, MSE or PHD student
CON	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		

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CON	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Del E. Webb Construction	1.		
CON	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		Pre-requisite: Engineering MS/MSE/PHD Students
CON	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	700	Research Methods	Course on research methods in a specific discipline.	N	RSC	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	SEM	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-15		
CON	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-15		
CPI	430	Social Simulation	Introduces computer simulation and agent-based modeling to study social systems. Credit is allowed for only CPI 430 or ASB 430.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	Pre-requisites: CPI 200 with C or better or currently enrolled
CPI	101	Introduction to Informatics	Concepts, tools, techniques, and applications of informatics. Includes overview of programming, data management, visualization, modeling, and social implications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	111	Game Development I	Introduces video game design, art theory, and concepts as they apply to video game development. Basic art principles used in game development. Covers the fundamental video game art principles of 2-D and 3-D composition, color theory, modeling, and lighting techniques. Demonstrates practical application of these art fundamentals in establishing style guides, concept art, storyboards, and in-game assets. Also includes game design, game production, asset production, and game programming. Hands-on experience by creating 2-D game prototypes belonging to different video game genres and evaluating the techniques.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	200	Mathematical Foundations of Informatics	Practical introduction to the mathematics necessary for studies in informatics. Topics include discrete math, analytic geometry, calculus, and linear algebra.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	MA	Pre-requisites: MAT 117, 170, 210, 260, 265 or 270 with a C or better OR the Unified Placement Test with a score of 75 or higher
CPI	211	Game Development II	Introduces multiplayer games, artificial intelligence, and tile-based worlds using Macromedia Flash. Uses ActionScript tool to automate, repeat, change, anticipate, and govern the action of games from a simple word game to a complicated multiplayer game like pool. Introduces gaming terminology and basic genres, enhancements such as fine-tuning graphics, creating optimal soundtracks, and using high score lists, as well as creating and modifying online chat files.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: Computer Gaming Certificate student or BIS student with Computer Gaming emphasis; CPI 111 with C or better
CPI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	310	Information and Data Management.	Entity-relationship modeling, relational database design, relational algebra, SQL, XML, object-oriented modeling, and data management	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites:CPI 200 with a grade of C or better or currently enrolled
CPI	311	Game Engine Development	State-of-the-art techniques for computer game design and programming with an emphasis on 3-D graphics and interaction. Focuses on a practical, example-driven approach to learning the unique art of 3-D game development. Topics include graphics game engines, textures, shader programming, artificial intelligence, physics, modeling, sound effects, and techniques for user interfaces.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 211 with a C or better

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CPI	321	Fundamentals of Game Art	Introduces art theory and concepts as they apply to video game development. Covers 2-D and 3-D composition, color theory, modeling, and lighting techniques. Demonstrates practical application of these art fundamentals in establishing style guides, concept art, storyboards, and in-game assets.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 211 with C or better
CPI	360	Decision Making and Problem Solving	Practical use of database systems, computer graphics, and modeling to inform decision making.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: CPI 200 with C or better
CPI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	400	Scientific Computing and Visualization	Introduces scientific computing and visualization, supported by data acquisition, geometric modeling, and computer graphics. Covers the necessary mathematical foundations, data structures, and algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Completed CPI 101, CPI 200, & CSE 110 with a grade of D or better
CPI	411	Graphics for Games	Examines real-time rendering of high-quality interactive graphics. Studies advances in graphics hardware and algorithms that make this possible. Examples of techniques and topics include nonphotorealistic rendering, occlusion culling, level of detail, terrain rendering, shadow generation, image-based rendering, and physical simulation. Helps students add graphics-related features to the game architecture developed in CPI 311.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 311 with a C or better
CPI	412	Cognitive Systems and Intelligent Agents	Advanced concepts and techniques of rule-based programming and agent architectures, incorporating ideas from artificial intelligence, cognitive psychology, and linguistics, along with their use in creating intelligent synthetic characters for interactive games and other virtual environments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 311 with a C or better
CPI	420	Technology and Society	Introduces cultural, ethical, and policy issues raised by the penetration of electronic information and communications systems into all aspects of contemporary society.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: CPI 101 with D or better or currently enrolled
CPI	421	3-D Modeling and Texturing	Provides working knowledge of 3-D modeling, texture mapping, and paint concepts for the creation of 3-D video games art assets. Students work on concepts such as 3-D lighting, high polygon mesh rendering, and various third-party software and how to integrate them into the asset production pipeline.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 321 with C or better
CPI	422	3-D Animation and Rigging for Video Games	3-D rigging, skinning, and 3-D animation techniques for video game development. Includes rotoscoping for character animation, animation loops, and integration of motion capture data, as well as prop animation. Covers operation of 3-D cameras and 3-D rendering.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 321 with C or better
CPI	441	Gaming Capstone	Industry-oriented course emphasizing the video game development process, technical skills, teamwork and communication among the students enrolled in the gaming certificate. Students partner with local industry involved in game development, visual art, and educational gaming and solve real-world problems by working in a team comprised of students from the three tracks available within the certificate.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 412, CPI 422 or DCI 451 with C or better
CPI	470	Application of Modeling and Visualization	Applies modeling, computing, and visualization techniques to real data; presents results in a meaningful visual environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1.		Pre-requisite: CPI 400
CPI	480	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-12		
CPI	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1.		
CPI	493	Honors Thesis		N	THE	N	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-6	L	Pre-requisites: Must be an Honors student
CPI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-3		
CPI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	101	Introduction to Informatics	Concepts, tools, techniques, and applications of informatics. Includes overview of programming, data management, visualization, modeling, and social implications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
CPI	200	Mathematical Foundations of Informatics	Practical introduction to the mathematics necessary for studies in informatics. Topics include discrete math, analytic geometry, calculus, and linear algebra.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 117, 170, 210, 260, 265 or 270 with a C or better OR the Unified Placement Test with a score of 75 or higher

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CPI	420	Technology and Society	Introduces cultural, ethical, and policy issues raised by the penetration of electronic information and communications systems into all aspects of contemporary society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: CPI 101 with D or better or currently enrolled
CPP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-12		
CPP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-12		
CPY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	613	Child Counseling	Applies counseling theory in working with children in clinics and elementary schools. Integrated practicum available with instructor approval.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	622	Group Counseling	Theories and methodologies used in group counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY622
CPY	623	Counseling At-Risk Youth	Examines the behaviors that place adolescents at risk for not achieving career goals and interventions to address these behaviors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CPY	634	Organizational Development and Planned Change	Organizational/individual dynamics, including theory, analysis, techniques, and consultation/intervention strategies used in organizational development.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Technology and Innovation or Fulton Engineering Graduate student
CPY	644	Psychology of Careers	Advanced career counseling, including theory, research, and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate; CED 577
CPY	645	Professional Issues and Ethics	Ethical, legal, and professional issues of concern to practitioners and researchers functioning in a variety of settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	650	Counseling Latinos	Survey course addressing mental health concerns and perspectives for individuals and families of Latino, Spanish-speaking origin.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: CED 522
CPY	651	Personality Assessment	Training in the use of major objective personality instruments to assess psychological symptoms; emphasizes MMPI-2 and MCMI-III.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: CED 523
CPY	667	Patterns of Behavior Disorders	Etiology and treatment of a variety of psychological problems, particularly those represented in DSM III-R.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY667
CPY	668	Grant Writing and Grant Makers: The Washington Context	Develops successful proposals for educational research projects. Students gain experience writing for federal agencies, reviewing, and being evaluated on grant proposals.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Credit is allowed for only CPY or HED 668
CPY	670	Individual Differences	Focuses on definitions and assessment of ways humans vary on psychological constructs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	671	Multicultural Counseling	Provides awareness of the influence of sociocultural variables on human development and explores implications for counseling minority populations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	672	Human Diversity: Social Psychological Perspectives	Implications for psychological practice of social, psychological, and biological factors in the development of behavioral differences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	674	Counseling Women	Explores women's development and its implications for counseling. Sexism in mental health, sex differences in diagnosis and psychopathology, and women's particular treatment needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	675	Health and Wellness Counseling	Theory, research, and practice in health and wellness counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY675
CPY	676	Social Bases of Behavior	In-depth examination of contemporary research and theory in selected areas of social psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	677	Advanced Counseling	Advanced topics in counseling theory, research, and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate; CED 577 with C or better
CPY	678	Supervision Theory	Models of therapist development and clinical supervision.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CPY	679	History and Systems of Psychology	Examines the development and differentiation of the discipline of psychology from its origins in philosophy to the present.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate

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CPY	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	694	Substance Abuse: Therapy and Psychoeducation	Develops knowledge and skills for conducting psychotherapeutic and educational interventions to address substance use disorders and associated concerns.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	701	Science and Practice of Counseling Psychology	Directed experiences involving the integration of theory, research, and practice in counseling psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	702	Research Methods in Counseling Psychology	Applies experimental and/or quasi-experimental methods to theory construction and treatment evaluation in counseling psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: COE 502
CPY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CRD	610	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability. Considers issues at different scales, ranging from urban to rural, local to global, historical to contemporary. Critically examines the role of public, private, and nonprofit institutions in promoting quality of life.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
CRD	620	Community Research Methods	Introduces community research methods, with emphasis on methodological questions and techniques relevant to contemporary community-based research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
CRD	620	Community Research Methods	Introduces community research methods, with emphasis on methodological questions and techniques relevant to contemporary community-based research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
CRD	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
CRD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-15		

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CRD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-15		
CRJ	100	The Justice System	Overview of the justice system. Roles of law enforcement personnel, the courts, and correctional agencies. Philosophical and theoretical views in historical perspective.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	SB	
CRJ	230	The Police Function	Introduces policing in the United States covering the history of police, contemporary police work, and problems in policing.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	240	The Correctional Function	Introduces the structure and function of the corrections system from historical and contemporary perspectives.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	302	Research Methods	Focuses on developing and evaluating research designs, data collection, and the relationship between validity and reliability. Also stresses methods for conducting research.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Must have completed CRJ 100, or 301, JUS 100, or 105, or 305 with a grade of C or greater; or be currently enrolled in any one of these
CRJ	303	Statistical Analysis	Introduces the fundamentals and application of descriptive and inferential statistics, with emphasis in the administration of justice area.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	CS	Pre-requisites: MAT 114, 117, 119, 142, 170 or 210 with C or better; CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	304	Criminology	Provides a basic overview of the nature, the causes and consequences, and the theories of criminal behavior.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	305	Women, Crime, and Justice	Studies women as offenders, victims, and professionals in the criminal justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	C	Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	306	Race, Ethnicity, and Justice	Studies minority issues in the criminal justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	C	Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	312	Police and Culture	Covers broad concept of culture, theoretical approaches to police subculture, and major themes that characterize police culture (suspicion, danger, solidarity, and isolationism).	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better or currently enrolled; CRJ 230 (AJS 230) with C or better or currently enrolled
CRJ	314	Innovations in Policing	Examines current theories and research findings that guide police work, and the practical implications of evaluation within police departments.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better or currently enrolled; CRJ 230 (AJS 230) with C or better or currently enrolled
CRJ	315	Police Organization and Management	Provides a thorough understanding of the structure, processes, and behavior of police organizations.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better; CRJ 230 (AJS 230) with C or better
CRJ	320	The Adjudication Function	History and development of courts, trial by jury, and other dispute resolution mechanisms; selection and removal of judges and juries; organization, structure, and jurisdiction of courts; trial and nontrial processes of the judiciary.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: Must have completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or be currently enrolled, or co-enrolled in either of these courses
CRJ	340	Juvenile Justice	Critical examination of the history and development of the juvenile court and the juvenile justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre- or Co-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better if completed
CRJ	350	Law and Social Control	Resolution of social issues through the application of law as an agent of social control. Nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	SB	Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled, or co-enrolled in either of these courses
CRJ	360	Substantive Criminal Law	Criminal liability. Crimes against persons, property, and society. Governmental sanctions of individual conduct as formulated by legislatures and the courts.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre- or Co-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better if completed
CRJ	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	410	Procedural Criminal Law	The criminal process. Constitutional and legal problems associated with arrest, search and seizure, and due process of law.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled
CRJ	420	Imperatives of Proof	Problems and means of establishing identity and fact in relation to arrest, detention, adjudication, sentencing, and correctional case management.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater,
CRJ	441	Prevention of Crime and Delinquent Behavior	Theories of prevention, individual, group, and community approaches: intervention at appropriate stages; contemporary law enforcement, and corrections practices.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled.
CRJ	442	Community Relations in the Justice System	Focuses on developing an informed plan and policy for incorporating research findings about the surrounding community within various justice services and agencies. Topics include social stratification, minority groups, and victimology.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled
CRJ	443	Probation and Community Corrections	Examines the probation and parole functions as well as the numerous and diverse types of community corrections programs.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100, or 301, or CRJ 100, or 301, or JUS 100, or 105, or 305 with a C or greater or be currently enrolled in one; and completed AJS 240, or CRJ 240 with a C or greater or be currently enrolled in CRJ 240.
CRJ	461	Domestic Violence	Legal, historical, theoretical, and treatment aspects of domestic violence, including child abuse, woman battering, incest, and marital rape.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100, OR 301, or CRJ 100, OR 301, or JUS 100, or 105, or 305 with a C or greater, or be currently enrolled in one of these.
CRJ	463	Occupational Crime	Overview of major issues in business, professional, and official rule violations. Includes consumer fraud, securities violations, unethical professionalism, and political corruption.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better

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CRJ	464	Organized Crime	The nature of organized crime and its illegal activities, theories of containment, and efforts by justice agencies to counter its dominance in society.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled.
CRJ	470	Discretionary Justice	Use/abuse, key issues/manifestations of discretion in legal system and other societal institutions. Theoretical/empirical linkages between discretion and discrimination, based on race, ethnicity, and gender.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	L or SB	Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or enrolled in; and completed ENG 101or 105 with a C or greater
CRJ	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	485	Student Assessment	Students may attend a mid-semester information session on the assessment process. At the end of the semester, students take part in a standardized examination and self-administered survey. Y/E grade only. Students must register for this class their final semester.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	0.		
CRJ	492	Honors Directed Study		N	LEC	N	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-6		
CRJ	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-6	L	Pre-requisites: Must be an Honors student
CRJ	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-3		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled in one of these
CRJ	501	Seminar in Criminal Justice	Overview of the American criminal justice system, with emphasis on policy issues in police, courts, sentencing, corrections.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	502	Seminar in Criminology	Theory and research on the nature, causes, and prediction of criminal careers and events.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	503	Research Methods	Introduces data analysis; overview of research methods used in social science research, including experimental design, survey research, field research, and evaluation research.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	504	Statistical Tools for Criminology and Criminal Justice	Focuses on essential statistical analysis that can be used in criminal justice and related agencies.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	505	Theory and Practice in Criminal Justice	Capstone course for the MA in Criminal Justice; provides a synthesis of the criminal justice system.	N	RSC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	510	Criminal Justice Planning and Program Evaluation	Examines the application of alternative models of strategic planning to the criminal justice system. Covers methods of evaluating criminal justice policies and practices.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	511	Applied Data Analysis in Criminal Justice	Examines a variety of tools used in the analysis of criminal justice data, including GIS mapping.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	512	Seminar in Policing	Graduate-level review of policing and police organizations. Seminar examines research on police strategies and practices designed to address crime.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	513	Seminar in Courts and Sentencing	Overview of the nature, proposed principles, and theoretical doctrine of the courts and sentencing policies in criminal justice.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	514	Seminar in Corrections	Theory, research, and policy issues regarding community-based and institutional correction programs.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	515	Seminar in Women and Crime	Introduces students to issues regarding women and the criminal justice system, focusing on their roles as offenders, victims and professionals.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	516	Seminar in Criminal Justice Organization and Management	Graduate-level review of policing and police organizations. Seminar examines research on police strategies and practices designed to address crime.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	517	Seminar on Juvenile Delinquency and Juvenile Justice	Examines patterns and correlates of delinquency within the context of theories of delinquency. Reviews the response of the juvenile justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	518	Seminar on Race/Ethnicity, Crime, and Justice	Theoretical perspectives and research on the overrepresentation of racial minorities as victims, offenders, and defendants in the criminal justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	519	Seminar on Victimization	Examines theory and research concerning victimization and consequences for victims, society, and the justice system. Also examines effective responses to victims' post-crime needs.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	520	Seminar on Violent Crime	Examines patterns and correlates of violent crime, as well as prevention strategies and policy implications.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students

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CRJ	521	Seminar on the Nature of Crime	Examines patterns and correlates of crime at individual, situational, and aggregate levels. Topics include defining crime, offender typographies, and criminal careers.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	522	Seminar on Gangs and Crime	Theoretical perspectives and research on gangs and crime, and on the role of the community and the criminal justice system in causes and control.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	524	Seminar on Punishment and Society	Examines the fundamental philosophical principles of justice and punishment. Includes a comparative and historical perspective.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	525	Seminar on Life-Course Criminology	Provides an intensive examination of life-course explanations of crime, the life-course perspective and a theoretical orientation, and research methods used in life-course research.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	534	Program Evaluation in Criminal Justice	Covers methods of program evaluation, principles of research design, and evaluation tools and resources.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Criminology and Criminal Justice	1.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	601	Seminar on Criminological Theory	Examines historical and contemporary criminological theories.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	602	Seminar on Criminal Justice Policies and Practices	Analyzes responses to crime and the operation of criminal justice system, with emphasis on theory and research on effectiveness of policies and practices of the system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	603	Advanced Research Design	Exposes students to advanced topics in research design and methodology in preparation for writing the doctoral dissertation.	N	RSC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	604	Advanced Statistical Analysis	Use and application of advanced statistical techniques and multivariate analysis of data.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	605	Topics in Quantitative Methods	Explores advanced techniques of statistical analysis within the field of criminal justice.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	606	Advanced Topics in Theoretical Criminology	Focuses on criminological theory construction, historical and contemporary theoretical debates within criminology, theory testing, empirical support for theories, and theoretical integration.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		

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CRJ	607	Advanced Topics in Policing	Covers the major issues related to policing and police organizations in the United States. Principal focus on policing and police organizations in large cities, with a focus on police organizational structure, police culture, police organizational environment, police decision making and change in the police organization.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	608	Advanced Topics in Courts and Sentencing	Focuses on recent research on charging, plea bargaining, bail decision making, jury decision making and sentencing, as well as the impact of recent reforms directed at the criminal court system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	609	Advanced Topics in Corrections	Provides a critical examination of the theoretical framework underpinning current correctional policy (institutional and community based), as well as advanced, in-depth analyses of contemporary issues surrounding corrections.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	610	Advanced Topics in Juvenile Justice	Examines the meaning of the concept of juvenile delinquency as a separate entity in the criminal justice system. Considers the relationship between social attitudes and definitions of youthful law violation, and reviews studies on various forms of delinquency, such as drug offenses, sex delinquency, and status offenders. Also focuses on the internal workings of the juvenile justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	611	Advanced Topics in Crime and Victimization	Examines research on criminal offending and victimization, focusing on the correlates of offending and victimization, risk and protective factors, and policies designed to reduce the impact of crime on victims.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	612	Advanced Topics in Race, Gender, and the Criminal Justice System	Examines the interrelationships among race and ethnicity, gender, crime and the criminal justice system. Focuses on theoretical perspectives and empirical research on racial minorities and women as victims, offenders, and criminal justice professionals.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	613	Qualitative Methods	Provides students with an examination of the design, execution, and write-up of qualitative research. Discusses methods of data collection, including participant-observation, ethnography, and interviewing.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-15		
CRJ	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	College of Public Programs	School of Criminology and Criminal Justice	1-15		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	462	Gangs	Critical examination of the history and development of gangs, including criminal justice system responses to gangs and gang-related behaviors.	N	LEC	N	OPT	INACTIVE College Human Services	INACTIVE School of Criminology & Criminal Justice	3.		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled in one of these.
CSE	100	Principles of Programming with C++	Principles of problem solving using C++, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	101	Introduction to Computer Science and Engineering	Introduces topics in computer science and computer engineering; familiarization with CSE curriculum subdisciplines and topics. Design of computer software and systems, exploring and experimenting with systems, teamwork, professional opportunities, computer models and programming, communication. Fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	2.		
CSE	110	Principles of Programming with Java	Concepts of problem solving using Java, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	120	Digital Design Fundamentals	Number systems, conversion methods, binary and complement arithmetic, Boolean algebra, circuit minimization, ROMs, PLAs, flipflops, synchronous sequential circuits. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	180	Computer Literacy	Students gain fluency in integrating technology to efficiently and effectively solve problems using computational thinking.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	182	Applied Problem Solving with C#.Net	Introduces object oriented programming, problem solving, fundamental algorithms and techniques, computer systems concepts, and implementation of programs using Visual C#.Net platform.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	183	Success in Computer Science and Engineering Programs	Overview of the computer science and computer systems engineering fields as well as academic success tips for students.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	205	Object-Oriented Programming and Data Structures	Problem solving by programming with an object-oriented programming language. Introduces data structures. Overview of computer science topics. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	Pre-requisites: CSE 100 or 110 with C or better or currently enrolled
CSE	220	Programming for Computer Engineering	Introduces procedure programming languages (C/C++) and hardware descriptive language (VHDL). fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science & Engineer PRE or BSE; Must have received a C or greater in CSE 120 or EEE 120 AND CSE 205 or CSE 210

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CSE	230	Computer Organization and Assembly Language Programming	Register-level computer organization. Instruction set architecture. Assembly language. Processor organization and design. Memory organization. IO programming, Exception/interrupt handling. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: CSE 120 or EEE 120 with C or better; CSE 100, CSE 110 or CSE 200 with C or better OR Computer Science & Engr Graduate student; Credit for CSE 230 or CSE 330 only
CSE	240	Introduction to Programming Languages	Introduces the procedural (C/C++), applicative (LISP/Scheme), and declarative (Prolog) languages.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: CSE 205 with C or better
CSE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6		
CSE	301	Computing Ethics	Ethics for computing majors: history of computing, intellectual property, privacy, ethical frameworks, professional ethical responsibilities, and risks of computer-based systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		Pre-requisites: Computer Science & Engineering BS/BSE student; CSE 205 with C or better
CSE	310	Data Structures and Algorithms	Advanced data structures and algorithms, including stacks, queues, trees (B, B+, AVL), and graphs. Searching for graphs, hashing, external sorting.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engineering BSE, Computer Science BS, Computational Math Sciences BS or Biomedical Informatics BS student; CSE 205 with C or better; MAT 243 with C or better (CMS students may substitute MAT 300) or CSE Graduate students
CSE	320	Design and Synthesis of Digital Hardware	Design and synthesis of digital hardware with hardware description language, computer-aided design tools, and programmable devices. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 220 with C or better; CSE 230 or EEE 230 with C or better; Credit for CSE 320 or CSE 422 only
CSE	325	Embedded Microprocessor Systems	System-level programming and analysis of embedded microprocessors systems. Fundamental concepts of digital system design for embedded system applications. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 220 with C or better or currently enrolled; CSE 230 or EEE 230 with C or better or currently enrolled; Credit for CSE 325 or CSE 421 only
CSE	340	Principles of Programming Languages	Formal syntactic and semantic descriptions, compilation and implementation issues, and theoretical foundations for several programming paradigms. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 310 with C or better; CSE 230 or EEE 230 with C or better OR CSE Graduate students
CSE	355	Introduction to Theoretical Computer Science	Introduces formal language theory and automata, Turing machines, decidability/undecidability, recursive function theory, and complexity theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Syst Engr BSE or Computer Science BS student and have received a C or greater in CSE 310 OR CSE Graduate students
CSE	360	Introduction to Software Engineering	Software life cycle models; project management, team development environments and methodologies; software architectures; quality assurance and standards; legal, ethical issues. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student and have received a C or greater in CSE 220 or CSE 240 or currently enrolled OR CSE Graduate students
CSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	408	Multimedia Information Systems	Design, use, and applications of multimedia systems. Introduces acquisition, compression, storage, retrieval, and presentation of data from different media such as images, text, voice, and alphanumeric.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Systems Engineering BSE or Computer Science BS students CSE 310 with C or better
CSE	412	Database Management	Introduces DBMS concepts. Data models and languages. Relational database theory. Database security/integrity and concurrency. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: - Computer Systems Engr BSE or Computer Science BS student; CSE 310 with a C or better or currently enrolled
CSE	414	Advanced Database Concepts	Object-oriented data modeling, advanced relational features, JDBC and Web access to databases, XML and databases, object-oriented databases, and object-relational databases.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 412 with a C or better or currently enrolled
CSE	420	Computer Architecture I	Computer architecture. Performance versus cost tradeoffs. Instruction set design. Basic processor implementation and pipelining.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better or currently enrolled
CSE	423	Systems Capstone Project I	Development process: specification, design, implementation, evaluation, and testing with economic, social, and safety considerations. Technical communication and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3-4	L	Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 320, 325, 360 with a C or better; May not enroll if received a C or better in CSE 461 or 485
CSE	424	Systems Capstone Project II	Continuation of capstone project started in CSE 423. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science or Computer Systems Engr BS or BSE students; Must have received a C or greater or be currently enrolled in CSE 423
CSE	430	Operating Systems	Operating system structure and services, processor scheduling, concurrent processes, synchronization techniques, memory management, virtual memory, input/output, storage management, and file systems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better; CSE 310 with a C or better OR Graduate CSE student
CSE	432	Operating System Internals	IPC, exception and interrupt processing, memory and thread management, user-level device drivers, and OS servers in a modern microkernel-based OS. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Systems Engineering or Computer Science BS/BSE student; CSE 430 with C or better
CSE	434	Computer Networks	Distributed computing paradigms and technologies, distributed system architectures and design patterns, frameworks for development of distributed software components.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better or currently enrolled.
CSE	438	Embedded Systems Programming	Development of embedded system software, I/O handlers, and multiple threaded programs. Scheduling algorithms. Embedded software structures. Real-time operating system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 325 with C or better

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CSE	440	Compiler Construction I	Introduces programming language implementation. Implementation strategies such as compilation, interpretation, and translation. Major compilation phases such as lexical analysis, semantic analysis, optimization, and code generation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 340 with a C or better or currently enrolled; CSE 355 with a C or better or currently enrolled.
CSE	445	Distributed Software Development	Distributed system architectures and design, service-oriented computing, and frameworks for development of distributed applications and software components. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better in CSE 360 or be currently enrolled.
CSE	450	Design and Analysis of Algorithms	Design and analysis of computer algorithms using analytical and empirical methods; complexity measures, design methodologies, and survey of important algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better in CSE 310 or be currently enrolled.
CSE	457	Theory of Formal Languages	Theory of grammar, methods of syntactic analysis and specification, types of artificial languages, relationship between formal languages, and automata.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering or Computer Science - BS students and a grade of C or better in CSE 355 or be currently enrolled.
CSE	459	Logic for Computing Scientists	Propositional logic, syntax and semantics, proof theory versus model theory, soundness, consistency and completeness, first order logic, logical theories, automated theorem proving, ground resolution, pattern matching unification and resolution, Dijkstras logic, proof obligations, and program proving.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 355 with a C or better or currently enrolled.
CSE	460	Software Analysis and Design	Object-oriented and structured analysis and design; software architecture and design patterns; component-based development; software safety and reliability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS student; CSE 360 with a C or better or currently enrolled.
CSE	461	Software Engineering Project I	First of two-course software team-development sequence. Planning, management, design, and implementation using object-oriented technology, CASE tools, CMM-level-5 guidelines. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Systems Engineering or Computer Science - BS students and a grade of C or better in CSE 460 or be currently enrolled. May not enroll if received C or better in CSE 423, or 485
CSE	462	Software Engineering Project II	Second of two-course software team-development sequence. Software evolution, maintenance, reengineering, reverse engineering, component-based development, and outsourcing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Systems Engineering BSE or Computer Science BS students; CSE 461 with a C or better or be currently enrolled; Pre- or Co-requisite: CSE 445 (with a C or better if completed)
CSE	463	Introduction to Human Computer Interaction	Design, evaluate, and implement interactive software intended for human use.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS student; CSE 310 with a C or better or currently enrolled.
CSE	465	Information Assurance	Concepts of information assurance (IA); basic IA techniques, policies, risk management, administration, legal and ethics issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Information Systems, Computer Systems Engineering BSE, Computer Science BS or Industrial Engineering BSE students and a grade of C or better in CIS 300 or CSE 360 or IEE 305 or currently enrolled
CSE	466	Computer Systems Security	Countermeasures to attacks to computer systems from miscreants (or hackers) and basic topics of cryptography and network security.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Science BS or Computer Systems Engineering BSE student; CSE 310 with C or better
CSE	467	Data and Information Security	Basic concepts of security and privacy, data and database security, access controls, trust models, watermarking, and private information retrieval.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science or Computer Systems Engineering students; CSE 310 completed with a C or better
CSE	468	Computer Network Security	Practical network security exposure and hands-on experience about basic concepts, case studies, and useful tools.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 310 with C or better
CSE	470	Computer Graphics	Introduces basic concepts of interactive computer graphics, realistic rendering, and 3-D viewing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better or currently enrolled in CSE 310 AND a grade of D or better in MAT 342 or 343 or currently enrolled.
CSE	471	Introduction to Artificial Intelligence	State space search, heuristic search, games, knowledge representation techniques, expert systems, and automated reasoning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 310 AND CSE 240 or be currently enrolled.
CSE	476	Introduction to Natural Language Processing	Principles of computational linguistics, formal syntax, and semantics, as applied to the design of software with natural (human) language I/O.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 310 or be currently enrolled.
CSE	477	Introduction to Computer-Aided Geometric Design	Introduces basic concepts of 3-D computer geometry, including curves, surfaces, meshes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems & Engineering BSE or Computer Science BS students; MAT 343 (or MAT 342) with D or better
CSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	485	Computer Science Capstone Project I	First course in capstone sequence for computer science majors emphasizing development process, technical skills, teamwork, and communication. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 310 and CSE 360 with C or better; may not enroll if received a C or better in CSE 423 or CSE 461
CSE	486	Computer Science Capstone Project II	Second course in capstone sequence for computer science majors continuing the development process, technical skills, teamwork, and communication. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 485 or currently enrolled.
CSE	492	Honors Directed Study		Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6		Pre-Requisites: Must be an honors student.
CSE	493	Honors Thesis		Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6	L	Pre-requisites: Must be an honor student.
CSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		Pre-requisite: CSE 310 with C or better

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CSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-7		Pre-requisite: Computer Systems Engineering or Computer Science - BS student and cumulative GPA must be greater than or equal to 2.50 OR Graduate Engineering students.
CSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-3		
CSE	507	Virtual Reality Systems	Computer-generated 3-D environments, simulation of reality, spatial presence of virtual objects, technologies of immersion, tracking systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science PHD, Computer Science MCS, Comp Sci/Engr (Info Assurance) PHD or Comp Sci (Art/Media/Engr) PHD students AND C or better in CSE 408 or CSE 470 or CSE 508
CSE	509	Digital Video Processing	Concepts of digital video compression, video analysis, video indexing, browsing and retrieval, video transmission over networks, video processors, MPEG 1, 2, 4, and 7 standards.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Science Engineering graduate student
CSE	510	Database Management System Implementation	Implementation of database systems. Data storage, indexing, querying, and retrieval. Query optimization and execution, concurrency control, and transaction management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	511	Semi-Structured Data Management	Addresses the data management issues for semi-structured data, which are commonly found in Web applications. Covers techniques on modeling, storing, querying and searching data without schemas, with optional confidence, and/or provenance information. Requires knowledge on relational databases and programming skills.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	512	Distributed Database Systems	Distributed database design, query processing, and transaction processing. Distributed database architectures and interoperability. Emerging technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	515	Multimedia and Web Databases	Data models for multimedia and Web data; query processing and optimization for inexact retrieval; advanced indexing, clustering, and search techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	520	Computer Architecture II	Computer architecture description languages, computer arithmetic, memory-hierarchy design, parallel, vector, multiprocessors, and input/output.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	522	Real-Time Embedded Systems	Development of real-time embedded systems, scheduling algorithms, embedded software structures, real-time operating system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	530	Embedded Operating System Internals	Investigating Linux source including: memory management, kernel synchronization and driver design topics. Designing, coding, testing, and evaluating embedded operating system software in a Linux environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	531	Distributed and Multiprocessor Operating Systems	Distributed systems architecture, remote file access, message-based systems, object-based systems, client/server paradigms, distributed algorithms, replication and consistency, and multiprocessor operating systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	532	Advanced Operating System Internals	Memory, processor, process and communication management, and concurrency control in the Windows NT multiprocessor and distributed operating system kernels and servers. Ability to understand advanced concepts in operating systems is required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	534	Advanced Computer Networks	Advanced network protocols and infrastructure, applications of high-performance networks to distributed systems, high-performance computing and multimedia domains, special features of networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	535	Mobile Computing	Mobile networking, mobile information access, adaptive applications, energy-aware systems, location-aware computing, mobile security and privacy.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	536	Advanced Operating Systems	Protection and file systems. Communication, processes, synchronization, naming, fault tolerance, security, data replication, and coherence in distributed systems. Real-time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	539	Applied Cryptography	Uses cryptography for secure protocols over networked systems, including signatures, certificates, timestamps, electrons, digital cash, and other multiparty coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	543	Information Assurance and Security	Comprehensive understanding of information assurance and security problems with the solutions as well as hands-on experiences about applying these solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	545	Software Security	Theories and tools for software security, including secure design, threat analysis and modeling, security testing and coding.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	548	Advanced Computer Network Security	Comprehensive understanding of network security and corresponding solutions, including cryptography, access control, secure Web transactions, e-mail security, and viruses.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		

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CSE	550	Combinatorial Algorithms and Intractability	Combinatorial algorithms, nondeterministic algorithms, classes P and NP, NP-hard and NP-complete problems, and intractability. Design techniques for fast combinatorial algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	552	Randomized and Approximation Algorithms	Introduces two important areas of algorithm design for graduate students. A randomized algorithm is allowed to rely on the outcome of a random experiment in deciding on its next step. In many applications, randomized algorithms are simpler than any deterministic algorithms known, but in several cases, they are in fact more powerful or more efficient than any deterministic algorithms. Covers basic paradigms for randomized algorithm design and analysis, as well as for derandomization.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	555	Theory of Computation	Rigorous treatment of regular languages, context-free languages, Turing machines and decidability, reducibility, and other advanced topics in computability theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	561	Modeling and Simulation Theory and Application	Modeling theories, simulation protocols, object-oriented modeling, model design, simulation analysis, network-based systems, discrete-event modeling, continuous modeling, hybrid modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	563	Software Requirements and Specification	Examines the definitional stage of software development; analysis of specification representations, formal methods, and techniques emphasizing important application issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	564	Software Design	Examines software design issues and techniques. Includes a survey of design representations and a comparison of design methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	565	Software Verification, Validation, and Testing	Test planning, requirements-based and code-based testing techniques, tools, reliability models, and statistical testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	566	Software Project, Process, and Quality Management	Project management, risk management, configuration management, quality management, and simulated project management experiences.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	570	Advanced Computer Graphics I	Hidden surface algorithms, lighting models, and shading techniques. User interface design. Animation techniques. Fractals and stochastic models. Raster algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	571	Artificial Intelligence	Definitions of intelligence, computer problem solving, game playing, pattern recognition, theorem proving, and semantic information processing; evolutionary systems; heuristic programming.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	572	Data Mining	Advanced data mining techniques: classification, clustering, association, preprocessing; performance evaluation; information assurance, Web mining, security and privacy issues, and other applications. Students must have a solid background in database management systems, search, learning, and statistics to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	573	Advanced Computer Graphics II	Modeling of natural phenomena: terrain, clouds, fire, water, and trees. Particle systems, deformation of solids, antialiasing, and volume visualization.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	574	Planning and Learning Methods in AI	Reasoning about time and action, plan synthesis and execution, improving planning performance, applications to manufacturing intelligent agents.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	576	Topics in Natural Language Processing	Comparative parsing strategies, scoping and reference problems, nonfirst-order logical semantic representations, and discourse structure.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	577	Advanced Geometric Modeling I	Advanced concepts of geometric modeling: rectangular and triangular surfaces, triangle meshes, Voronoi diagrams, discrete and continuous shape measures, volumes and volume visualization. Students must have a solid background in linear algebra, calculus, and basic 3D graphics to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	578	Advanced Geometric Modeling II	Advanced concepts of geometric modeling: Bezier curves, B-spline curves, blossoming, polygons, geometric algorithms, shape analysis. May be repeated for credit.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	579	NURBS: Nonuniform Rational B-Splines	Projective geometry, NURBS-based modeling, basic theory of conics and rational Bezier curves, rational B-splines, surfaces, rational surfaces, stereographic maps, quadrics, IGES data specification.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student or a Mathematics PHD student
CSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	GNA	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		

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CSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		Pre-requisites: Must be a Computer Science or Computer Science Engineering graduate student
CSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-15		
CSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-15		
CSE	100	Principles of Programming with C++	Principles of problem solving using C++, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	CS	
CSE	180	Computer Literacy	Students gain fluency in integrating technology to efficiently and effectively solve problems using computational thinking.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
CSS	432	Issues in Chicana and Chicano Gender	Analyzes social construction of gender identities; emphasis on impact of American and Mexican cultural values on normative gender relations.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
CSS	490	Field Studies in the Chicana and Chicano Community	Introduces principles and methods of qualitative research applied to the Chicana and Chicano community.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
CST	100	Object-Oriented Software Development I	Basic concepts of object-oriented analysis, design, and programming using Java. Basic Java variables, expressions, arrays, statements, methods, and classes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	150	Digital Systems	Number systems and arithmetic, Boolean algebra, combinational logic, K-maps, ROMs, PLAs, flip-flops, synchronous sequential circuits, introduction to HDL.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	CS	Pre-requisites:CST 100, or be co-enrolled in CST 100; MAT 117 or higher
CST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-3		
CST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	200	Object-Oriented Software Development II	Object-oriented programming and design; information hiding; inheritance and run-time binding; polymorphism; recursion; GUI programming. Introduces software engineering concepts, including software development life cycles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:CST 100 with a D or better
CST	201	Object-Oriented Software Development II Lab	Hands-on development and programming using objects, inheritance, and polymorphism; GUI programming; introduction to software engineering concepts, UML tools.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites:Completed CST 201 with a grade of D or better, or be co-enrolled in CST 201

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CST	220	Programming Languages for Technology with C/C++ and Scripting	Programming language design and implementation concepts through programming C/C++ and scripting; language paradigms, compilation and interpretation, types, run-time management, data control, pointers, inheritance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:CST 150, and CST 200 with a D grade or better
CST	230	Applied Data Structures	Applications of data structures: strings, stacks, queues, trees, hash tables. Time/space complexity, recursion, searching, and sorting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: CST 200 and MAT 243 with D or better
CST	250	Microcomputer Architecture and Programming	Microcomputer architecture, instruction set, assembly language programming and debugging, I/O considerations, memory interface, peripherals and busses, exception/interrupt handling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:Must have taken CST 100, & 150 with a D or better. Must be co-enrolled in CST 251
CST	251	Microcomputer Architecture and Programming Laboratory	Hands-on experience in assembly language programming and debugging. May be taken concurrently with, or subsequent to, CST 250.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering	1.		
CST	256	C Programming for Engineering Technology	Applied and practical problem solving using the C programming language.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	298	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	315	Software Enterprise I: Tools and Process	Introduces tools and techniques used in software enterprise/development, including coding, design, testing, configuration management, and personal process management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:Completed CST 200 and CST 230 with a D or better
CST	316	Software Enterprise II: Construction and Transition	Best practices in software construction in the context of a team project, including refactoring, defensive programming, unit testing, and configuration and release management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	335	Applications of Computer Theory	Introduces and applies formal language theory and automata, Turing machines, decidability, undecidability, recursive function theory, and complexity theory.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 230; MAT 243
CST	350	Digital Systems Design with Verilog	Digital system design using Verilog. Structural and behavioral modeling. Design examples include finite-state machines, RISC CPUs, and UARTs. Requires design projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET150 or CST150 with D or better OR Technology and Innovation or Fulton Engineering graduate student
CST	359	Internet Networking Protocol	Computer networking for application, transmission control and network layers using the Internet protocols as a model; reliability and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	364	Computer Architecture	Price/performance analysis, instruction set design, RISC/CISC, processor design and implementation, pipelining, instruction-level parallelism, memory hierarchy, storage and I/O systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must have earned D or greater in CET 200 or CST 200 or be currently enrolled AND earned D or greater in CET 354 or CST 354 or be currently enrolled OR must be Technology Science BAS, MS, MSTECH, or Master Computing Studies student
CST	383	Shell and Script Programming with UNIX	UNIX operating system programming of shells, environment and 4th-generation languages and tools, such as sed, awk, perl, grep, make.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites:Must be Technology Science non-degree or BS student AND earned C or greater in CET 100, CET256, CST100, or CST256 or currently enrolled OR must be Technology Science BAS, MS, MSTECH, Master Computing Studies, or Engineering PHD student
CST	386	Operating Systems Principles	Fundamentals of operating systems, process management, scheduling and synchronization techniques, memory and file management, protection and security issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites:Tech Science or Eng BS/BSE/BAS/NonDegree AND C or greater in CST100 or CST256 AND C or greater in CST 250/251 OR Tech Sci BAS/MS/MSTECH, Master Comp Studies or Eng PHD student
CST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	401	Digital Signal Processing for Multimedia	Applies DSP techniques to multimedia. Digital filter analysis and design. Time and frequency techniques. Computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	415	Software Enterprise III: Inception and Elaboration	Third course in the four-course enterprise sequence. Students perform inception (project launch) and elaboration (requirements analysis) activities in project teams.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	L	
CST	416	Software Enterprise IV: Project and Process Management	Project-centric course focusing on applying software process, project management, and technical leadership. Final course in the software enterprise sequence.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 415; ENG 102, 105, 108 or 112
CST	420	Foundations of Distributed Web-Based Applications in Java	Principles underlying design and implementation of distributed software components; sockets, protocols, threads, XML, serialization, reflection, security, and events.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be Technology Science BAS/BS/MS/MSTECH student AND earned a C or greater in CET 230 or CST 230 or be currently enrolled AND earned a D or greater in CET 386 OR CST 386 or be currently enrolled
CST	425	Server Software Programming	Design and implementation of software servers, threaded socket servers, servers for distributed Web-based applications; security for the Web.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better
CST	427	Distributed Object Systems	Distributed applications with Web services, NET, RMI, CORBA; concepts and frameworks for managing, registering, locating, and securing distributed object applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better
CST	428	Web-Client User Interface Programming	Client-server model for window interfaces. Java Swing, Applets, mark-up and scripting languages; Web tools and related technologies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better
CST	433	Database Technology	Introduces database technologies and DBMS, data models, and languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: CST 230 and MAT 243 completed with a C or better or currently enrolled
CST	441	Software for Personal Digital Assistants	Mobile computing using Java's K, Virtual Machine, MIDP for wireless applications; user interfaces, persistent data storage, and networking.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CST	452	Advanced Digital Systems Design with VHDL	Uses VHDL to design components of computers and digital systems. Design examples include RISC processor and ALU, memory controller, I/O controller. Requires design projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET 350 or CST 350 with C or better OR Technology and Innovation or Fulton Engineering graduate student
CST	456	Microcomputer Systems Interfacing	Programming using BIOS and DOS routines. Disk operations, TSR routines, and device drivers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET 354 or CST 354 with C or better or enrolled; CET 420 or CST 420 with D or better or enrolled OR Techn and Innovation or Fulton Engr graduate student
CST	457	Advanced Assembly Language Applications	Applies 32-bit assembly language programming using advanced assembler techniques and interfacing to high-level languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CST 354 with D or better; CET 354 with D or better OR Technology and Innovation or Fulton Engineering graduate student
CST	458	Digital Computer Networks	Network hardware and software, topologies, protocols, OSI model, LANs, WANs, Internet; basic concepts of packet switching, routing, error controlling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	473	Digital/Data Communications	Signals, distortion, noise, and error detection/correction. Transmission and systems design. Interface techniques and standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		
CST	481	Information System Security	Implementation, development, and analysis of computer and network security policies, legal ramifications and development and analysis of risk management measures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	482	Network Forensics	Use and creation of advanced network forensics tools: intrusion detection and prevention, honeynets, traffic routing and management, and data reduction and graphing tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	483	Cyber Security Capstone Project	Applies security techniques to a real-world situation. Development of security policy, risk solutions, and incident response facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	2.		
CST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	486	Embedded C Programming	Programming concepts for embedded systems. Interfacing and controlling LED, LCD, keypads, buttons. Embedded OS concepts. Timers and interrupts. Serial communication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET383 or CST 383 with C or better; CET 350 or CST 350 with C or better OR Technology and Innovation or Fulton Engineering Graduate student
CST	488	Systems Administration of UNIX	UNIX administration of system and user services using command line and GUI tools. System security and forensics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Technology Science or Engineering BS/BSE/BAS/Graduate NonDegree/MS/MSTECH AND earned C or greater in CET383 or CST383 AND CET386 or CST386 or be currently enrolled OR must be Tech Sci MS/ MSTECH or Eng PHD student
CST	489	Network Administration with TCP/IP	Configuration and installation of networks: addressing, routing, naming, and LAN and MAN services. Network security checking, monitoring, and basic forensics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Technology Science or Engineering BS/BSE/BAS/Graduate NonDegree/MS/ or MSTECH AND earned D or greater in CET383 or CST383 or be currently enrolled AND earned D or greater in CET459 or CST459 or be currently enrolled
CST	490	Reading and Conference		N	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering	1-6	L	Pre-requisites: Must be an Honors student
CST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		Pre-requisite: Undergraduate Technology and Innovation or Fulton Engineering student; Min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
CST	496	Ethics and Professionalism in Computing	Studies major social and ethical issues in computing, including impact of computing on society, ethical behavior, and social responsibility.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		
CST	497	Honors Colloquium		Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-7		Pre-requisite: Undergraduate Technology and Innovation or Fulton Engineering student; Min GPA 2.25; OR Technology and Innovation or Fulton Engineering Graduate student
CST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-3		
CST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	520	Computer Architecture	Basics of computer architecture. RTN, RISC, CISC concepts; computer arithmetic; ALUs; memory systems; I/O.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: CET364 or CST364 OR Graduate, Non-Degree, or Post Bacc student AND College of Engineering & Applied Sciences or School of Technology

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CST	533	Database-Centric Enterprise Applications Development	Solutions for enterprise software systems based on relational database technology. Persistence solutions in middleware frameworks. O/R, XML, and scalability issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Minimum University Cum GPA 3.0; CST 433
CST	540	Internet-Enabled Embedded Devices	Accessing hardware devices through Internet, including Applets, HTTP, custom byte streams, XML-RPC, SOAP. Building network-based applications that interface hardware.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420
CST	552	Digital Systems Design	Digital system design techniques and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); CST 452
CST	554	Distributed Computing	Topics in distributed systems, including communications, distributed operating systems, fault-tolerance, and performance issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	556	Distributed Applications for Windows Platforms	Distributed Web-based applications using Windows frameworks such as .NET. Essential components, XML, remoting, Web services, windows services, user interfaces.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); CST 420
CST	557	Embedded Applications Development	Current trends in embedded system development using C, assembly, and special purpose hardware. Development versus target environment issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	566	Principles and Practices of Operating Systems	Principles and practices of operating systems: virtual memory systems, I/O devices and systems, file systems and organization, and other topics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	576	Embedded Real-Time Programming	Topics in real-time embedded operating systems such as synchronization, communications, file systems, and memory sharing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Minimum University Cum GPA 3.0
CST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	586	Digital Modeling Techniques	Digital system modeling and simulation using hardware description languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering	1-12		
CST	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		
CST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-15		
CST	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		
CST	501	Digital Signal Processing Applications	Applies DSP techniques to the design and analysis of digital filters. Solution of filtering problems using computer techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
DAH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	301	Philosophy and Criticism of Dance	Philosophical issues in dance and dance criticism, with emphasis on written analysis and interpretation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better
DAH	302	Cross-Cultural Dance Studies	Examines the field of ethnochoreology, ethnographic methods, and interpretive research practices. Develops critical writing, thinking, and viewing skills for comparative dance study.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	(L or HU) & G	Pre-reqs: Must have completed DAH 201 with a C or greater or be currently enrolled; Must have completed both ENG 101 and ENG 102 OR ENG 105 with a C or greater or be currently enrolled
DAH	401	Dance History	History of dance with a focus on Western forms from the Renaissance to contemporary times. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU	
DAH	492	Honors Directed Study	Consult with an honors advisor before enrolling. May be repeated for credit.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-6		
DAH	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Dance T	1-6	L	Pre-requisites: Must be an Honors student
DAH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	495	Theory and Methods of Dance Research	Examines modes of inquiry, data gathering techniques, data analysis and representation, prospectus design, and presentation style for dance research studies. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAH	496	Senior Dance Studies Capstone	Original research that integrates dance and a related field of interest. Includes production of written document and public presentation. Fall semester must be completed before spring registration. May be repeated for a total of 4 semester hours.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		

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DAH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-3		
DAH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	502	Cultural Concepts of Dance	Examines the close connections among culture, dance, and movement through writings in cultural theory, dance ethnology, and philosophy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		
DAH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		Pre-requisites:Must be a Graduate Student
DAN	122	Rythmic Theory for Dance II		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	130	Dance	Introduces styles and forms of dance; ballet, modern, jazz, tap, ballroom, ethnic. Fee.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	130	Dance	Introduces styles and forms of dance; ballet, modern, jazz, tap, ballroom, ethnic. Fee.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	264	Improvisational Structures	Introduces basic improvisational and choreographic principles with emphasis on current media and technology, group structures, and movement invention.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	321	Music Literature for Dance	Historical survey of music and compositional elements relative to dance. Emphasis on analysis of choreography from a musical standpoint. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must have completed DAN222 and MUS340 with a grade of C or greater or be currently enrolled
DAN	330	Dance	Advanced levels. Continuation of DAN 230. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	351	Methods of Teaching Ballet	Analysis and acquisition of teaching techniques and materials for ballet.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	352	Dance Education Theory	Motivation; learning; assessment; historical, cultural, and social constructs; outreach; service; advocacy; curriculum development in dance education. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance major
DAN	354	Integrated Approaches to Dance Education	New methods of dance education pedagogy. Essential skills to employ and integrate instructional technology within dance curricula. Activities promote experiential and layered instruction in integrated approaches to multicultural pedagogy that include interdisciplinary, integrated, and immersion strategies of education. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	356	Teaching Contemporary Dance	Frameworks, skills, and strategies for teaching contemporary dance practice in multiple settings. Fee.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance Education student
DAN	364	Choreography and Accompaniment	Experience in the use of traditional and nontraditional musical structures as a basis for choreographic projects.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-Requisites: Must have completed DAN265 with a grade of C or greater or be currently enrolled
DAN	365	Advanced Choreography	Investigation and practice of contemporary styles of choreography.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must have completed DAN364 with a C or greater; must have completed DAN265 with a C or greater or be currently enrolled
DAN	371	Dance Theatre Performance/Production	Performance or technical theatre work in designated dance productions. 3 hours a week per semester hour.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	380	Performance Studies Practicum	Focus on developing rehearsal skills and achieving performance excellence through the preparation of three completed works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		

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DAN	435	Technique and Theory of Ballet	Study of professional advanced ballet technique with emphasis on preparation for performance. 4 hours weekly. May be repeated for credit.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisites:Must be a Dance Major
DAN	445	Laban Movement Analysis	Theory and practice of Laban movement analysis and Bartenieff fundamentals through movement investigation, observation, notation, and analysis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance major
DAN	471	Dance Arizona Repertory Theatre	Preprofessional modern dance company, emphasizing outreach and performance. Opportunity to work with guest artists and community schools and organizations. May be repeated for credit. fee	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAN	472	Concert Dance	Extensive preparation of repertory or new works created by experienced choreographers. Simulates dance company experience, culminating in performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	496	Senior Dance Education Capstone	Original research that integrates dance and education. Includes production of written document and public presentation. Fall semester must be completed before spring registration. Must be repeated for a total of 4 semester hours.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DAN 350 with C or better; DAN 352 with C or better; DAN 354 with C or better; DAN 356 with C or better
DAN	510	Dance Production	Theory of costuming, lighting, makeup, scenery, and sound as related to dance performance. May be repeated once for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	522	Sound Design for Dance	Focus on digital recording/editing of audio compositions for choreographic and video projects. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	1-2		Pre-requisite: Must have completed DAN 521 or be co-enrolled in DAN 521
DAN	545	Laban Movement Analysis	Theory and practice of Laban movement analysis and Bartenieff fundamentals through movement integration, observation, critical research, notation, and analysis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	551	Graduate Dance Pedagogy: Ballet	Advanced analysis of teaching techniques for ballet.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	564	Solo and Group Choreography I	Original choreography created for solo and group performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Graduate Student
DAN	565	Solo and Group Choreography II	Continuation of DAN 564.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must have completed DAN 564
DAN	571	Dance Theatre	Performance in specially choreographed dance productions.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		Pre-requisites:Must be a Graduate Student
DAN	671	Dance Arizona Repertory Theatre	Preprofessional modern dance company, emphasizing outreach and performance. Opportunity to work with guest artists and community schools and organizations. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3-4		Pre-requisites:Must be a Graduate Student
DCE	100	Introduction to Dance	Overview of dance as a cultural and performative practice, exploring history and theory, philosophy, and movement practices, with reference to key pioneers in the field from around the world.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DCE	100	Introduction to Dance	Overview of dance as a cultural and performative practice, exploring history and theory, philosophy, and movement practices, with reference to key pioneers in the field from around the world.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DCE	113	Dances of Africa I	Introduction to basic elements of West and Central African dance styles including the traditional rhythms and cultural context.	N	STO	Y	GNA	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	120	Modern Dance I	Introduces modern dance and its basic principles, including alignment, core muscular strength, and spatial exploration.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	121	Ballet I	Introduces principles of ballet and development of basic technical skills, including dynamic alignment, functional rotation, and musicality.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	130	First-Year Movement Practices I	Introduces diverse somatic movement principles and practices through exploration of movement, context, theory, and personal reflection.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance major
DCE	134	Technique and Theory of Modern Dance	Elementary concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	135	Technique and Theory of Ballet	Elementary ballet technique with emphasis on alignment, control, and development of the feet with proper awareness of style and phrasing. 4 hours weekly. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	160	First-Year Creative Practices I	Explores creativity and creative processes with reference to some key historical practices and influential artists. Seeks to encourage and develop students' awareness of their own imagination and creative process through individual and group projects involving problem solving, creative tasks, and reflection.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	170	First-Year Seminar I	Orientation to the university learning environment and profession of dance with emphasis on developing tools and processes for reflection and critical thinking.	N	LEC	N	YGB	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisite: Dance major
DCE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DCE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DCE	201	Dance, Culture, and Global Contexts	Introduces the study of dance as culture in diverse global contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DCE	220	Modern Dance II	Explores modern dance practices, including somatic techniques, stylistic versatility, and performance skills.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		

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DCE	221	Ballet II	Explores contemporary and classical ballet practices, focusing on whole body integration and performance strategies.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	234	Technique and Theory of Modern Dance	Intermediate concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	235	Technique and Theory of Ballet	Advanced study of elementary ballet technique through the traditional exercises, with proper awareness of style and phrasing. 4 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	262	Rhythmic Theory for Dance I	Elements of music, music structures, and their relationship to dance. Emphasis on rhythmic analysis and dance accompaniment. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	263	Rhythmic Theory for Dance II	Continuation of DAN 221 with an emphasis on small group/movement projects in relation to musical time and structure. CD-ROM work included. Students with rhythmic theory transfer credit may meet the enrollment requirements by passing a proficiency exam. Please contact the instructor of the course for more information.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	265	Approaches to Choreography	Intermediate application of basic choreographic principles with emphasis on improvisation, form, content, and evaluative skills.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance majors only
DCE	270	Second-Year Seminar 1	Theory and practice of lighting, scenery, sound, and stage management for dance production. Labs cover all areas of production.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2-3		Pre-requisites: Dance student
DCE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DCE	334	Technique and Theory of Modern Dance	Advanced concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Placement audition required.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	335	Technique and Theory of Ballet	Intermediate ballet technique with emphasis on strength, dynamics, rhythmical impulses, and transitions with awareness of proper style and phrasing. 4 hours weekly.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	340	Dance, Computers, and Multimedia	Introduces desktop multimedia as it relates to dance creation, education, production, and research. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	CS	Pre-requisites: ART 112 with D or better or Dance BFA student
DCE	350	Dance for the Classroom Teacher	Develops teaching methodology for implementation of dance curriculum in K-12 classrooms.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DCE	354	Creative Approaches to Teaching Dance I	Explores creative strategies and methodologies for teaching dance to a variety of populations in diverse settings. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DCE	434	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance technique. 6 hours weekly.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	437	Dance Kinesiology	Principles of kinesiology applied to dance movement, including identification of muscular imbalances, inherited anatomical differences, and pathomechanics in dance technique.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance BFA student; BIO 201 with a D or better
DCE	460	Transition Project I	Original choreography for group performance with analysis and critique of problems encountered in production.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	492	Honors Directed Study		N	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-6		
DCE	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Dance T	1-6	L	Pre-requisites: Must be an Honors student
DCE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DCE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-7		
DCE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-3		
DCE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	501	Philosophy of Dance	Analyzes traditional and contemporary theories of dance with regard to issues of expression, form, and meaning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must be a Graduate Student
DCE	534	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance for first-year graduate students. 6 hours weekly. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		Pre-requisite: Dance Graduate student
DCE	535	Technique and Theory of Ballet	Graduate study of ballet technique.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-2		Pre-requisite: Dance Graduate student
DCE	540	Multimedia Applications for Dance	Introduces desktop multimedia as it relates to dance creation, production, education, and research. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must be a Graduate Student
DCE	543	Sound Design for Dance	Audio mixing for analog/digital recording and editing. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance majors

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DCE	554	Graduate Dance Pedagogy	Overview of the role of modern dance technique and theory in the university curriculum including current pedagogical theory, diversity, gender. May follow or precede internship in practical teaching.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance majors only
DCE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LAB	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		
DCE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		Pre-requisites:Must be a Graduate Student
DCE	634	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance for second-year graduate students. 6 hours weekly. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance Graduate student
DCE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisites:Must be a Graduate Student
DCI	510	Teacher as Researcher	Introduces teacher research as a new research genre; offers teachers guidance on planning and conducting research on their practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	511	Establishing Effective Teaching Practice	Helps beginning teachers establish and strengthen best practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	512	Developing Strategies for Teaching Practice	Helps beginning teachers refine management strategies and instructional methods.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	520	Teaching Standards Applied to Professional Practice	Develops teacher skills and self-reflective practices to assess instruction and document and achieve professional growth in teaching standards.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-3		
DCI	521	Reflective Practice in Teaching Standards	Teachers apply reflective practices to develop professional presentation portfolios.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-3		
DCI	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	530	Establish a Mentoring Partnership	Prepares veteran educators for mentoring. Mentors collaborate, reflect on their practice, and become teacher leaders through professional development.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	531	Analyzing and Planning for Professional Growth through Mentoring	Refines strategies for assessing instruction and provides collegial feedback.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student

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DCI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		
DCI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
DCI	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	701	Curriculum Theory and Practice	Curriculum theory and practice as a field of study. Its current orientations and applications, modes of inquiry, and community of scholars and practitioners.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	702	Interdisciplinary Research Seminar	Core research course for students in the interdisciplinary PhD in Curriculum and Instruction program.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		
DCI	703	Research in Teacher Development and Leadership	Examines research in teacher education and development from preservice through in-service. Students participate in the review of research related to broad themes within the recent literature. Strands/themes of investigation include a brief review of the history of teacher education, teacher development, professional development and teacher leadership, teacher evaluation, qualitative and quantitative research in teacher education, reform in teacher education, including recent policies and politics and other issues.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		
DCI	704	Adult Learning Theory and Practice	Explores the multiple dimensions of learning in adulthood, including the social contexts of learning, and cognitive and developmental aspects of learning. Focuses on the experience and practice of adult learning, and examines the various theories attempting to explain how adults learn.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3		

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DCI	705	Teacher Leadership Theory and Professional Practice	Teacher leaders analyze leadership skills as they reflect on their own practice and professional development experience. They process knowledge of how to effectively promote positive practices among teachers at varied stages in their careers. Teacher leaders are involved in scholarly inquiry and discourse by means of leadership institutes, peer collaboration, reflective questioning and individual research. Teacher leaders also develop the perspective of the teacher as researcher as they read and critically evaluate published research related to teacher leadership in professional and academic literature.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
DCI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	511	Establishing Effective Teaching Practice	Helps beginning teachers establish and strengthen best practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		
DCI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
DCI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
DCI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	451	Design Research and Educational Gaming Practicum	Principles of design research as applied to educational games. Includes implementation of a design research project.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: RDG 440 with C or better; EDT 329 with C or better
DCI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
DCI	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DCI	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
DCI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
DNC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
DNP	600	Research Methods	Course on research methods in a specific discipline.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	601	Theoretical Foundations for Advance Practice Nursing	Examines philosophical foundations of advanced nursing practice by analyzing interrelationships among theory, philosophy, practice, and research.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	602	Principles of Research Methods and Evidence-based Practice	Examines processes of scientific inquiry and their application to generating knowledge for and refining nursing practice.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	603	Evaluating and Applying Evidence in Healthcare Outcomes	Examines the role of inquiry and innovation in scientific, theoretical, and practical underpinnings of healthcare improvement.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Graduate Nursing Program student
DNP	604	Advanced Human Pathophysiology Core	Core course focuses on human pathophysiology and concepts of genetics for advance practice nursing.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	605	Advanced Health Assessment Core	Advanced health assessment skills, including history-taking strategies and physical, functional, developmental, and psychosocial assessment.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	607	Advanced Human Pathophysiology Women's Health	Didactic course for women's health nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	609	Advanced Practice Nursing Role I	First of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: Nursing Graduate Program
DNP	610	Advanced Practice Nursing Role II	Second of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP 609 with B or better
DNP	611	Advanced Health Assessment of Women Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment of women across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	613	Women's Health Promotion I	Didactic course focuses on theories of health behavior, health promotion, disease prevention and patient education.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the DNP Women's Health specialty; DNP 601, 602, 604, 605, 607 and 611 with D or better; Co-requisite: DNP 614
DNP	614	Women's Health Practicum I	Clinical assessment and education of women across the lifespan for the purposes of health promotion and disease prevention.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: admission to the DNP Women's Health specialty; DNP 601, 602, 604, 605, 607 and 611 with D or better; Co-requisite: DNP 613
DNP	615	Management of Common Problems in Women's Health	Focuses on management of nursing care for high-risk perinatal women and women with common health problems.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Graduate Nursing Program: Women's Health Specialty Track; DNP 611, 612, 613 and 614 with D or better; Co-requisite: DNP 616
DNP	616	Advanced Women's Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to Graduate Nursing Program: Women's Health Specialty Track; DNP 611, 612, 613 and 614 with D or better; Co-requisite: DNP 615
DNP	617	Management of Complex and Chronic Disease in Women	Didactic course focused on using current evidence-based research as the context for the assessment and management of complex and chronic reproductive and gynecologic health status across the lifespan and patient education.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Graduate Nursing Women's Health specialty track (NUANPWHNDNP); Must have DNP 611,612,613,614,615, and 616 with a D or better; Co-requisite: DNP 618
DNP	618	Advanced Women's Health Practicum III	Clinical course focused on using current evidence-based research as the context for the assessment and management of complex and chronic reproductive and gynecologic health states across the lifespan and patient education.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Graduate Nursing Women's Health specialty track (NUANPWHNDNP); Must have DNP 611,612,613,614,615, and 616 with a D or better; Co-requisite: DNP 617
DNP	620	Advanced Human Pathophysiology Adult	Didactic course for adult nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	621	Advanced Health Assessment of Adults Lab/Practicum	Skill-based course focuses on advanced health assessment skills, including history-taking strategies and the physical, functional, genetic, developmental, and psychosocial/cultural health assessment of adults and adolescents.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	623	Adult Health Promotion	Introduces adult health promotion and disease prevention, emphasizing principles of evidence-based practice in clinical and community settings.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Enrolled in NUANPADDNP. Corequisite: DNP 624
DNP	624	Adult Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to the DNP Adult Health specialty; DNP 601, 602, 604, 605, 611, 621 and 622 with D or better; Co-requisites: DNP 623
DNP	625	Management of Common Problems in Adults	Includes theory/research that guides the management/maintenance of adults with chronic health alterations. Emphasizes psychophysiological interrelationships of illnesses.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; and must have completed DNP 623(or NUR 501) with a grade of B or better; Co-requisite:DNP 626

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DNP	626	Adult Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Plans NUNURMS, NUAHNMS, NUNURDTMS or NUAHNDTMS, or NUGRNONDGR; and completed NUR 506(or enrolled) with a B or greater; and completed NUR 513(or enrolled) with Y credit
DNP	627	Management of Complex Health Problems in Adults	Didactic course designed to complement DNP 628. Focus on application of EBP in care of adults with complex health alterations.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Advanced Nursing Practice (Adult Nurse Practitioner) Graduate Nursing Program; DNP 623, 624, 625 and 626 with D or better; Co requisite: DNP 628
DNP	628	Adult Health Practicum III	Clinical practicum designed to complement DNP 627. Focuses on application of EBP in care of adults with complex health alterations.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to the Advanced Nursing Practice (Adult Nurse Practitioner) Graduate Nursing Program; DNP 623, 624, 625 and 626 with D or better; Co requisite: DNP 627
DNP	630	Advanced Human Pathophysiology Family	Didactic course for family nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	631	Advanced Health Assessment for Family Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	632	Applied Pharmacotherapeutics for the Family	Applies evidence-based pharmacotherapeutic principles to disease treatment and health promotion and maintenance for family nurse practitioners.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	633	Family Health Promotion in Primary Care I	First didactic role specialty course. Focuses on concepts and strategies to promote, manage, and maintain health of child, adult, and family.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:NUNURDTMS,or NUFHNDTMS,or NUGRNONDGR, & completed NUR 500,551,552,553,554,559,564,565, with a B or greater, or be currently enrolled, & be co-enrolled in NUR 513 & 568.
DNP	634	Family Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Be in Nursing MS,or Nursing (Family Nurs Pract) or GRNU Non-Deg; & completed 500,551,552,553,554,559, ,564,565 with a grade of B or greater, or be currently enrolled.
DNP	635	Management of Common Family Problems in Primary Care II	Second didactic role specialty course utilizing knowledge from previous courses to formulate therapeutic promotion, management, and maintenance for individuals across the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:nunurdtms, or NUFHNDTMS,or NUGRNONDGR; & co-enrolled in NUR 569,& completed NUR 562 with a B or greater, or be currently enrolled, & recieved credit in NUR 513 or be currently enrolled.
DNP	636	Family Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be in NURSING MS or NUFHNDTMS; & co-enrolled in NUR 563; & completed NUR 562,568 with a grade of B or greater, & completed NUR 513 with a Y grade; or currently enrolled in these classes.
DNP	640	Advanced Human Pathophysiology Pediatrics	Didactic course for pediatric nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	641	Advanced Health Assessment for Children Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment of children from birth to age 21 years.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	643	Developmentally Based Care of the Well Child	Focuses on current practices, research, and issues related to health promotion and disease prevention for children and adolescents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be a Nur grad student, or a grad non degree student; AND completed NUR 500, 551,552,554,558, 564,566, or be currently enrolled; & be co-enrolled in NUR 513.& 529.
DNP	644	Well Child Advanced Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be a Nur grad student, or a grad non degree student; AND completed NUR 500, 551,552,554,558, 564, 566 or be currently enrolled; & be co-enrolled in NUR 513.& 531.
DNP	645	Management of Common Problems in Pediatric Primary Care	Focuses on concepts, theories, and research as a basis for strategies related to management of illness and health maintenance for children.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS, or NUPCNDTMS, or NUGRNONDGR; & co-enrolled in NUR 530, and completed NUR 531 with a grade of B or better, or be currntly enrolled, or received credit for NUR 531 or currently enrolled.
DNP	646	Advanced Practicum II in Pediatric Primary Care	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be NUNURDTMS or NUPCNDTMS or non-deg grad; AND co-enrolled in NUR 532, & completed NUR 531,529,513 with a grade of B or greater, or be currently enrolled
DNP	650	Advanced Human Pathophysiology Neonates	Didactic course for neonatal nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	651	Advanced Health Assessment of Neonates Lab/Practicum	Skill-based course focuses on advanced health assessment skills, including history-taking strategies and the physical, functional, genetic, developmental, and psychosocial/cultural health assessment of neonates.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	653	Advanced Development and Family Health Promotion: Neonatal Theory I	Concepts, theories, interventions, and research related to the promotion, management, and maintenance of physical, behavioral, and developmental needs of at-risk newborns and infants and their families.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be MS Nursing and AHN, or GRNU Non-Degree, and co-enrolled in NUR 513 & 515; & completed NUR 525,526,527,528, with a grade of B or greater, or be currently enrolled in NUR 525,526,527,528.
DNP	654	Neonatal Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites:Must be MS Nursing and AHN, or GRNU Non-Degree, and co-enrolled in NUR 513 & 515; & completed NUR 525,526,527,528, with a grade of B or greater, or be currently enrolled in NUR 525,526,527,528.

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DNP	655	Management of Common Neonatal Problems	Proactive neonatal theory course focusing on the concepts, theories, and research related to acute and chronic health deviations of neonates and infants.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a graduate nursing student, and must have completed NUR 515 and 516 with a grade of B or better or be currently enrolled, & completed NUR 513 with a Y grade, or be currently enrolled, AND be co-enrolled in NUR 517.
DNP	656	Neonatal Practicum II	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must be a graduate nursing student, and must have completed NUR 515 and 516 with a grade of B or better or be currently enrolled, & completed NUR 513 with a Y grade, or be currently enrolled, AND be co-enrolled in NUR 518
DNP	659	Embryology and Genetics	Prepares advanced practice nurses to use embryology, genetics, and physiology concepts within the nursing process in the care of pediatric and neonatal patients.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Neonatal, Pediatric or Family Nurse Practitioner)
DNP	660	Advanced Neuropsychopathology Lifespan	Manifestations of altered neurophysiology and psychopathology over the lifespan. Uses evidence-based support for theoretical views of psychiatric disorders to analyze the relationships of neuropsychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	662	Advanced Mental Health Assessment Across the Lifespan Lab/Practicum	Focuses on integration of knowledge and development of skills in assessment of psychiatric disorders occurring in children, adolescents, and adults.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-2		
DNP	663	Mental Health Promotion in Adults	Analyzes issues, theories, and research in restoration and promotion of mental health. Emphasizes developing conceptual framework for psychiatric nursing.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 500, 521,551,554 559, 564, & 565 with a grade of B or greater or be currently enrolled,AND be co-enrolled in NUR 522 & NUR 512
DNP	664	Adult Psychiatric Mental Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 500, 521,551,554 559, 564, & 565 with a grade of B or greater or be currently enrolled,AND be co-enrolled in NUR 522 & NUR 512
DNP	665	Management of Common Mental Health Problems in Adults	Focuses on development of theoretical basis for intervention and a knowledge base for collaboration and consultation in the mental health area.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND completed NUR 522 with a B or better or currently enrolled; AND NUR 513 with Y or currently enrolled.
DNP	666	Adult Psychiatric Mental Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		
DNP	667	Management of Complex and Chronic Mental Health Problems in Adults	Focuses on modalities of evidence-based treatment with adolescents and adults with complex and/or chronic psychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Graduate Nursing Program: Adult Psychiatric Mental Health specialty; DNP 663, 664, 665, 666 with D or better; Co requisite: DNP 668
DNP	668	Psychiatric Mental Health Practicum III	Clinical experiences in the assessment and evidence-based management of the most complex and chronic adolescent and adult mental health disorders.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Admission to the Graduate Nursing Program: Adult Psychiatric Mental Health specialty; DNP 663, 664, 665, 666 with D or better; Co requisite: DNP 667
DNP	671	Advanced Mental Health Assessment Across the Lifespan	Focuses on comprehensive mental health assessment of psychiatric disorders occurring in children, adolescents, and families.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	672	Psychopharmacology Across the Lifespan	Focuses on evidence-based use of medications as a treatment for children and adolescents with mental health disorders.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	673	Mental Health Promotion in Children, Adolescents and Families	Focuses on evidence-based interventions to promote the mental health of children, adolescents, and families.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	674	Child and Family Mental Health Practicum II	Clinical experiences to become skilled in assessment and evidence-based 1:1 psychotherapy, group, and family management of common mental health disorders in children, adolescents, and families.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
DNP	675	Management of Common Mental Health Disorders in Children, Adolescents, and Families	Emphasizes the assessment and evidence-based management of common mental health disorders in children, adolescents, and adult family members.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3-4		
DNP	676	Child and Family Mental Health Practicum I	Clinical experiences to become skilled in assessment and evidence-based management of common mental health disorders in children, adolescents, and families.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Prerequisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner; Co requisite: DNP 675
DNP	677	Management of Complex and Chronic Mental Health Disorders in Children, Adolescents, and Families	Focuses on modalities of evidence-based treatment with children, adolescents, and families with complex and/or chronic psychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	678	Child and Family Mental Health Practicum III	Clinical experiences in the assessment and evidence-based management of the most complex and chronic mental health disorders across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner; DNP 674; DNP 676;Co-requisite: DNP 677
DNP	679	Biostatistics: Principles of Statistical Inference	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
DNP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	681	Advanced Health Assessment of Older Adults Lab/Practicum	Skill-based course focused on advanced health assessment skills specific to older adults, including history-taking strategies, physical, functional, developmental, and psychosocial health assessment.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		

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DNP	686	Management of Common Health Problems in Geriatrics	Provides theoretical foundation for advanced geriatric healthcare focusing on the epidemiology of aging and the effects of senescence on cognition and organ systems. Emphasizes the core concepts of aging, including health management and end of life care. Uses theory building approaches for applying health management process and outcomes to clinical practice and policy.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Nursing and Healthcare Innovation PhD or DNP student. Pre/Co-requisite: DNP 682 or NUR 682. credit is allowed for only DNP or NUR 686
DNP	688	Management of Complex Diseases and Syndromes in Geriatric Population	Focuses on diagnosis and management of complex diseases and syndromes in the geriatric population.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	696	Advanced Human Pathophysiology Older Adults	Didactic course for gerontological/geriatric nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	712	Clinical Residency and Management	Demonstrates DNP competencies through portfolio documentation of clinical learning experiences and implementation of the DNP Evidence-Based Clinical Applied Project. Doctoral students submit the DNP Portfolio in partial fulfillment of the degree.	N	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Doctor of Nursing Practice student
DSC	100	Introduction to Environmental Design	Surveys environmental design; includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H & G	
DSC	101	Design Awareness	Surveys cultural, global, and historical context for the design professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & G	
DSC	180	Athena Design Success	Facilitates academic success for first-year College of Design students in the Athena program through developmental, educational, and professional experiences.	N	DIS	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		
DSC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
DSC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	236	Introduction to Computer Modeling	Computers in design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	CS	Pre-requisite: Industrial Design student; Passed Milestone
DSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
DSC	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
DSC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-7		
DSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
DSC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Master of Science in Design or PhD in Environmental Design & Planning student
DSC	501	Qualitative Research in Design	Theory and application of qualitative research. Emphasizes using ethnography to identify and specify innovative concepts and strategies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	520	Contemporary Design Issues	Projected applications in design production, planning, and decision-making processes.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	525	Design Methodologies	Practical exercises and studies in problem-solving strategies; problem definition and supporting theory for the designer. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	558	Daylighting	Daylighting as a design determinant; concepts, techniques, methodology, experiments, and case studies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Herberger Institute of Design and the Arts graduate student
DSC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Master of Science in Design student
DSC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD or Design (Inter Design) MSD student
DSC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student

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DSC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
EA	555	Sch-Plant-Plan-Main		Y	LEC	Y	CNV	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		
EAC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EAC	320	Child Guidance and Classroom Management	Understanding of the factors and elements necessary to create a positive and productive learning environment for the pre-K-3 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
EAC	330	Emerging Language and Literacy	Understanding the development of language from birth to age 8, and appropriate strategies for promoting growth in speaking, listening, reading, and writing in the pre-K-3 learning environment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	335	Assessment Birth to Age 8	Examines assessments appropriate to pre-K-3 grade instruction to align curriculum with learner needs. Focuses on test design, interpretation, lesson design, and aspects related to multiple classroom and formal assessments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
EAC	340	Literacy Interventions in K-3 Classrooms	Explores the evaluation of children's literacy development. Includes linking individual needs with literacy instruction, diagnosing reading difficulties, and tutoring a K-3 child to plan appropriate instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	345	Math Methods for Early Childhood Classrooms	Research-based and developmentally appropriate practices and methodologies for teaching and assessing mathematics to young children in a grade pre-K-3 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	355	Accommodating Instruction in Early Childhood Education	Identifying and accommodating learners with special needs, including classroom adaptations in instruction and assessment, for pre-K-3 classroom environments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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EAC	426	Professional Knowledge in Early Childhood Education	Explores issues related to professional knowledge, including disciplinary instruction and the impact of the community on students' learning.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EAC	440	Integrated Curriculum and Assessment: Science for Early Childhood Educators	Developmentally appropriate practices and methodologies for teaching and assessing science education with young children in a pre-K to third grade classroom. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	450	Integrated Curriculum and Assessment: Social Studies and Creative Arts	Techniques and resources for a balanced and integrated social studies and creative expression curriculum for pre-K to third grade classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	460	Child, Family, Community, Culture of the Early Childhood Classroom	Examines theoretical approaches to teaching young children. Includes survey of social, historical, political, community, and educational issues.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	472	Field Experience K-3	Field practicum for early childhood education. Requires a supervised placement in a K-3 classroom. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
EAC	480	Student Teaching Pre-K	Supervised student teaching experience in early childhood. Requires an assigned teaching placement in a preschool classroom setting. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	6.		
EAC	482	Student Teaching K-3	Supervised student teaching experience in early childhood. Requires an assigned teaching placement in a kindergarten to third grade classroom. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	6.		
EAC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	501	Interprofessional and Family Collaboration	Explores trends and practices, educationally appropriate instruction and resource materials, methods and strategies in early childhood education. Discusses history of the field, theory, contemporary issues and controversies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	521	Primary/Elementary Communication Arts in Bilingual Education	Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	522	Developmental Social Experiences in Early Childhood Education	Materials, techniques, aesthetic expression, creative activities, and values in the integrated curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
ECD	544	Play-Based Education in Inclusive Settings	Theories of play and the educational implications of each in an early childhood/elementary inclusive curriculum for best teaching practices. Practical applications for the primary grades of the elementary and preschool setting in inclusive settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	548	Childhood Studies and Social and Political Environments	Examines the emergence of interdisciplinary/transdisciplinary childhood studies from historical, social, and political contexts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	555	Contemporary Practices in Early Childhood	Trends and practices, instructional and resource materials, and methods and techniques in early childhood education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	570	Pre-K Internship/Student Teaching	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2.		Pre-requisites: Graduate students only
ECD	571	Pre-K Internship/Student Teaching	Field experience consisting of 60 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	4.		Pre-requisites: Graduate students only
ECD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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ECD	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	601	Theories and Issues in Early Childhood Education	Current theories and issues in early childhood education. Presents issues of early childhood best practices, policy, theory, research, and evaluation that are of significance to the early childhood professional. Highlights building on the child development conceptual framework as related to theory and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
ECD	733	Social and Emotional Development	Inquiry into the social and emotional development dynamics in children, such as peer relationships, self-concept, and parenting processes, with implications for teachers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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ECD	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	503	Introduction to Research and Evaluation in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
ECD	541	Assessment of Young Children	Developmental assessment and related program planning for infants and young children. Emphasizes authentic, individualized, family-centered and culturally competent approaches.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECD	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	543	Issues in the Development of Infants and Young Children	Factors and conditions that affect early development. Strategies for promoting attachment, self-regulation, resilience, adaptation, and coping.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	545	Curricula, Methods, Technology, and Adaptations for Infants and Young Children	Developmentally appropriate practices. Serving young children with diverse abilities in natural, inclusive settings. Emphasizes cognitive development, social competence.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	546	Communication, Language, and Early Literacy	Early communication development and language acquisition. Facilitating communicative competence and early literacy for infants and young children's diverse abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	547	Supporting Motor Development	Early sensorimotor development. Strategies to facilitate the acquisition of motor skills and address the needs of children with motor disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	555-W	Modern Practices in Early Childhood Education	Trends and practices, instructional and resource materials, and methods and techniques in early childhood education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ECD	570	Pre-K Internship/Student Teaching	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2.		
ECD	570	Pre-K Internship/Student Teaching	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2.		
ECD	571	Pre-K Internship/Student Teaching	Field experience consisting of 60 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	4.		
ECD	571	Pre-K Internship/Student Teaching	Field experience consisting of 60 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	4.		
ECD	578	Student Teaching in Early Childhood (K-3)	Supervised teaching in the K-3 classroom setting. Synthesized experience in curriculum, instruction, classroom organization, and guidance of young children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate students only
ECD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
ECD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		

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ECD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	211	The Developing Child: Theory into Practice, Prenatal-Grade 3	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	211	The Developing Child: Theory into Practice, Prenatal-Grade 3	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	211	The Developing Child: Theory into Practice, Prenatal-Grade 3	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	300	Principles of Interprofessional Collaboration	Focuses on the dispositions, experiences, knowledge, and skills necessary for interprofessional collaboration designed for young children and their families.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	301	Technology, Media, and Community-Based Education for Young Children	Examines technology, media, toys, and community-based educational opportunities to support the education of three- to eight-year-old children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	302	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	302	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	313	Technology in Early Childhood Education	Evaluates technology and technological learning tools for early childhood classrooms; integrates technology and its tools into students' learning. Lecture, discussion, active participation. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	315	Classroom Organization and Guidance of Young Children	Theories and strategies to guide children's development toward becoming self governing; typical and atypical behaviors; implementing age-appropriate classroom management techniques that foster individual, social, and academic competence.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	316	Teacher Research: Studying Children in Context	Introduces designing, conducting, interpreting, and reporting teacher research; methods of research and fieldwork with children to improve teaching practices and child outcomes.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	323	Building Home, School, and Community Partnerships	Knowledge and skills to facilitate positive and continuous family-school partnerships; family background, social context, family involvement, and current research on family-school interaction and academic success.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	323	Building Home, School, and Community Partnerships	Knowledge and skills to facilitate positive and continuous family-school partnerships; family background, social context, family involvement, and current research on family-school interaction and academic success.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	324	Social Studies and Creative Arts for Primary Level Children	Social studies and creative arts standards, curriculum, and instructional and assessment strategies for all primary-level children; developmentally appropriate methods and strategies for effective instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be co-enrolled in BLE 321, EDP 323, EED 397 and RDG 322 AND have completed the following with a C or better: TEL311, 313, 314, 315 and BLE312 and TEL396 completed with a Y AND be a Prof/Early Child Blk 1 student
ECD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	396	Field Experience: Community-Based Early Childhood Education Setting	Observation in classrooms and individual and small group instruction. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
ECD	396	Field Experience: Community-Based Early Childhood Education Setting	Observation in classrooms and individual and small group instruction. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
ECD	400	Foundations of Early Child Education: Birth-Age 8	Foundational basis of the early childhood field, including historical roots, current practices, professional behavior and ethical conduct, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
ECD	401	Integrated Curriculum and Assessment: Social Studies and Creative Arts	Presents materials, techniques, and resources for a balanced program of social studies and aesthetic expression appropriate for children in preschool through 3rd grade, with emphasis on the integrated curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Fulton Education students and a Cumulative GPA must be greater than or equal to 2.50 AND a grade of C or better in BLE 408 AND co-enrolled in ECD404, 420, 480 and 496.
ECD	402	Integrated Curriculum and Assessment: Math and Science	Emphasizes developmentally appropriate educational strategies and instructional techniques in teaching mathematics and science to children in preschool through 3rd grade, within an integrated curriculum approach.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of at least 2.5 AND co-enrolled in ECD300, ECD496 and SPE416 AND a grade of C or better in ECD400, 401, 403 and complete at least 1 unit of ECD496.
ECD	403	Educational Environments: Preschool/Kindergarten/Primary Grades	Focuses on interactions between young learners and the physical and social environments encountered in preschool, kindergarten, and primary settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of at least 2.5 AND be co-enrolled in ECD 400, ECD 401 and ECD 496
ECD	404	Teaching Reading and Language Arts in Early Childhood	Development of oral and written language from birth to age 8. Describes developmentally appropriate educational strategies for promoting growth in speaking, listening, reading, and writing.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of at least 2.5 AND completed with a C or better in BLE 408, ECD 406, ECD 476 and ECD 477 AND co-enrolled in BLE 408, ECD 315, ECD 405 and ECD 496
ECD	405	Practicum in Teaching Reading and Language Arts in Early Childhood	Supervised experience teaching reading and language arts at the preschool, kindergarten, and primary-grade (1-3) levels. Developmentally appropriate strategies to promote young children's speaking, listening, reading, and writing abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisites: Must be a Fulton Education student and have a cumulative GPA of 2.5 or greater AND a grade of C or better in ECD 300 or be co-enrolled.
ECD	406	Assessment: Birth-Age 8	Assessment and evaluation principles, techniques, and issues related to children birth through eight years. Test construction and interpretation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Undergraduate Fulton Education student ; ECD 300, 301, 315, 400 and 496 with a C or better or be currently enrolled; Co-requisites: BLE 408, ECD 476 and ECD 477
ECD	414	Interprofessional Practicum	Investigates services and agencies available in the local community to parents of children with special needs. Practical experiences with an intermittent seminar format. Dispositions, knowledge, experiences, and skills necessary for interprofessional collaboration across multiple agencies and programs.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	414-W	Early Childhood Curriculum and Organization	Historical and legal influences on early childhood education; advanced preparation for curriculum designs and developmentally appropriate practices; school organization topics.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be co-enrolled in EED 411, EED 412, EED 496 and RDG 413 AND a grade of C or better in the following: BLE321, RDG322, EDP323 and 324 and completion of EED397 with a grade of Y AND must be a student in Early Childhood Blocks 2 and 3

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECD	415	Practicum - Literacy Curriculum, Instruction, and Assessment, K-3	Supervised experience teaching reading and language arts in the primary grades.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Co-requisites: ECD 404 or ECD 413
ECD	420	Integrated Curriculum and Assessment: Science	Developmentally appropriate educational strategies and instructional techniques in teaching science to children birth-3rd grade.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student AND have completed with a C or better BLE408, ECD406, 476 & 477 AND be co-enrolled in ECD401, 404, 480 & 496
ECD	470	Early Childhood Education Student Teaching Seminar	Reflective, experienced-based integration of theory and practice; professional development for early childhood teachers.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	476	Integrated Curriculum: Birth-Pre K	Introduction to teaching children birth through pre-K, including classroom organization, curriculum, and professional relationships.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student AND have completed with a C or better ECD300, 301, 315, 400 & 496 AND be co-enrolled in BLE408, ECD406 and ECD477
ECD	477	Student Teaching: Pre-K or Infant/Toddler	Supervised practicum in a pre-K or infant/toddler, school-or center-based program. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		Pre-requisites: Must be a Fulton Education student and have completed with a C or better: ECD300, 301, 315, 400 & 496 AND be co-enrolled in BLE408, ECD406 & ECD476
ECD	478	Student Teaching in Early Childhood (K-3)	Supervised teaching in the K-3 classroom setting. Synthesized experience in curriculum, instruction, classroom organization, and guidance of young children. May be repeated for credit. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Pre-requisites: Must be co-enrolled in ECD 470, and ECD 481
ECD	479	Capstone Seminar in Early Childhood Education	Reflective, experienced-based integration of theory and practice; professional development for early childhood teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Early Childhd Block 3; Must have completed EED 411, EED 412, ECD 414 and RDG 413 with a C or better or be currently enrolled; Must have completed EED 496 with a Y grade or be currently enrolled; ; Must be co-enrolled in ECT 477 & ECT 478
ECD	480	Integrated Curriculum and Assessment: Mathematics	Developmentally appropriate educational strategies and instructional techniques in teaching mathematics to children birth-3rd grade.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education student and have completed with a C or better: BLE408, ECD406, 476 & 477 AND be co-enrolled in ECD401, 404, 420, 496
ECD	481	Issues and Practices in Early Childhood Education	Stakeholder analysis of teacher education experiences applicable to preparation that leads to increased educational opportunity and success for diverse children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
ECD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	493	Honors Thesis	Honors Thesis	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
ECD	493	Honors Thesis	Honors Thesis	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
ECD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	496	Field Experience	Applies course content in diverse birth?3rd grade settings through observation, planning child-sensitive curriculum, implementing learning strategies, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisites: Initial Teacher Certification Program Admission
ECD	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
ECD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
ECD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECE	330	electrical Networks		N	LEC	N	CNV	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	4.		
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
ECN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-3		
ECN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
ECN	201	Economic Issues and Analysis	Introduces tools used in basic economic analyses, emphasizing application to contemporary national and international issues. Not open to students with credit in ECN 211 or 212	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisite: Not open to students with credit in ECN 211, ECN 212, 213, or ECN 214
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	
ECN	213	Honors Macroeconomics	Introduces modern macroeconomic analysis. Theory of national income, unemployment, inflation, and economic growth and its application to economic policy. Not open to students with credit in ECN 313.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must be an Honors student; Co- or Pre-requisite: One of the following courses: MAT 210, MAT 211, MAT 270 or MAT 271.
ECN	214	Honors Microeconomics	Introduces modern microeconomic analysis. Theories of consumer behavior, production, and cost. Output and price determination in a variety of market settings. Not open to students with credit in ECN 314.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must be an Honors student; Must have completed one of the following courses with a grade of C or greater or be currently enrolled: MAT 210, MAT 211, MAT 270 or MAT 271
ECN	221	Business Statistics	Methods of statistical description. Applies probability theory and statistical inference in business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: MAT 211 or MAT 271 with a C or better or currently enrolled
ECN	231	Honors Business Statistics	Applies statistical methods used in business and economic modeling and research. Emphasizes regression analysis and modeling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: Must be an Honors student; Must have completed MAT 211 or MAT 271 with a grade of C or greater or be currently enrolled.
ECN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: Must be an Honors Student; Must have completed one of the following courses with a grade of C or greater or co-enrolling: MAT 210, MAT 211, MAT 270, MAT 271 or MAT 272
ECN	303	Honors Managerial Economics	Develops a basic platform for managerial decision making. Applies basic economic concepts and models to actual business practices.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Barrett Honors student; ECN 214 or 312/314 with C or better
ECN	306	Survey of International Economics	Surveys international trade issues, commercial policy, trade theory, customs unions, and international monetary topics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled. May not enroll if completed IBS 306 with a D or greater
ECN	312	Intermediate Microeconomic Theory	Role of the price system in organizing economic activity under varying degrees of competition.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	313	Intermediate Macroeconomic Theory	Determinants of aggregate levels of employment, output, and income of an economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 214 or ECN 312/314 with C or better.
ECN	315	Money & Banking	Functions of money. Monetary systems, credit functions, banking practices, and central banking policy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	331	Economics of the European Economic Union	Examines broad economic policies seeking to influence individuals' decisions, the history of European economic development and policies, as well as institutions and social systems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	335	South Asia and the World Economy	Develops and discusses alternative theories of trade, development, and growth in the context of south Asia and the world economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre- or corequisites with grade of "C" or better: ECN 211 or 213; ECN 212 or 214; MAT 211 or 271.
ECN	360	Economic Development	Theories of economic growth and development. Role of capital formation, technological innovation, population, and resource development in economic growth.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	365	Economics of Russia and Eastern Europe	Origins and analysis of contemporary institutions. Comparative development and differentiation in the 20th century.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	382	Managerial Economics	Applies economic analysis to managerial decision making. Market analysis in the context of the socio-legal environment. Does not satisfy Economics major requirements.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Not open to Economics or business majors. Must have minimum 2.0 ASU cumulative GPA and minimum of 56 total earned hours, or be a Non-degree seeking student, or any Graduate degree seeking student
ECN	384	Economics of Social Behavior	Applies economic analysis to contemporary behavior; discrimination, work versus leisure, crime, medical care, macroeconomic policies. Does not satisfy Economics major requirements.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must have minimum cumulative GPA of 2.00; Must have minimum of 56 total earned hours or be a non-degree seeking student OR any Graduate degree seeking student
ECN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	404	History of Economic Thought	Development of economic doctrines, theories of mercantilism, physiocracy, classicism, neoclassicism, Marxism, and contemporary economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 214 or ECN 314 with a grade of C or greater or be currently enrolled; Co- or pre-requisite: ECN 213 or ECN 313
ECN	410	Applied Business Forecasting	Applies forecasting techniques in business and institutional environments. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: ECN 221 or STP 226, AND ECN 214 or ECN 312/314 with a grade of C or greater.
ECN	413	Advanced Honors Macroeconomics	Develops and uses various macroeconomic models to evaluate important economic policies. Emphasizes honing students' policy evaluation skills.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Honors student; ECN 213 or 313, AND ECN 214 or 312/314 with a grade of C or greater.

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ECN	414	Advanced Honors Microeconomics	Develops and uses various microeconomic models to evaluate important economic issues. Emphasizes the economics of uncertainty and information.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Honors student; ECN 213 or 313, AND ECN 214 or 312/314 with a grade of C or greater.
ECN	416	Game Theory and Economic Behavior	Introduces game theory and its application to various economic situations under conditions of complete and incomplete information.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 314 with a grade of C or greater or be currently enrolled; Co- or pre-requisite: ECN 213 or ECN 313
ECN	421	Earnings and Employment	Origins of labor movement, analysis of labor unions, labor markets, collective bargaining, and current policy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	425	Introduction to Econometrics	Elements of regression analysis: estimation, hypothesis tests, prediction. Emphasizes use of econometric results in assessment of economic theories.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314, AND ECN 221. ECN 231 or STP 226 with a grade of C or greater
ECN	436	International Trade Theory	Comparative-advantage doctrine, including practices under varying commercial policy approaches. Economic impact of international disequilibrium.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	438	International Monetary Economics	History, theory, and policy of international monetary economics. Balance of payments and exchange rates. International financial markets, including Eurocurrency markets.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-reqs: ECN 213 or ECN 313 with a grade of C or greater or be currently enrolled
ECN	441	Public Economics	Public goods, externalities, voting models, public expenditures, taxation, and budget formation with emphasis on the federal government.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	450	Law and Economics	Economics of the legal system, including analysis of property, contracts, torts, commercial law, and other topics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	453	Industrial Organization and Competition Policy	Development of public policies toward business. Antitrust activity. Economic effects of government policies.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	470	Mathematical Economics	Integrates economic analysis and mathematical methods into a comprehensive body of knowledge within contemporary economic theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	475	Capstone in Economics	Capstone course integrating several areas of economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	L	Pre-reqs: ECN 213 or 313 AND ECN 214 or ECN 312/314 with C or greater; senior standing.
ECN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Min 3.0 ASU cum GPA; ECN 213 or 313, and ECN 214 or 312/314 with a grade of C or greater.
ECN	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6		Pre-requisites: Honors student; W. P. Carey BS or BA student or non degree seeking W.P. Carey student; ECN 213 or 313 AND ECN 214 or 314 with a grade of C or better.
ECN	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6	L	Pre-requisites: Honors student; W. P. Carey BS or BA student or non degree seeking W.P. Carey student; ECN 213 or 313 AND ECN 214 or 314 with a grade of C or better.
ECN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-7		Pre-requisites: Must have completed ECN 313and ECN 314 with a grade of C or greater or be currently enrolled
ECN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-3		
ECN	501	Statistics for Managers	Fundamentals of statistical analysis to aid management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		
ECN	502	Managerial Economics	Applies microeconomic analysis to managerial decision making in areas of demand, production, cost, and pricing. Evaluates competitive strategies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: MBA degree program student
ECN	503	Global Business Environment	Macroeconomic analysis of issues related to economic growth, inflation, interest rates behavior, unemployment, exchange rate determination, and global competitiveness.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a MBA degree program student
ECN	504	History of Economic Thought	Historical development of economic theory. Emphasizes the development of economic analysis from preclassical economics through Keynes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	509	Macroeconomic Theory and Applications	Theory of income, output, employment, and price level. Influence on business and economic environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	510	Microeconomic Theory and Applications	Applies economic theory to production, consumer demand, exchange, and pricing in a market economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	525	Applied Regression Models	Simple linear regression, multiple regression, indicator variables, and logistic regression. Emphasizes business and economic applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:MAT 210 with a grade of D or better or currently enrolled
ECN	527	Categorical Data Analysis	Discrete data analysis in business research. Multidimensional contingency tables and other discrete models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:ECN 525 completed with a D or better, or currently enrolled
ECN	530	Experimental Design	Experimental designs used in business research. Balanced and unbalanced factorial designs, repeated measures designs, and multivariate analysis of variance.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Graduate Students only (degree and non-degree seeking)

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ECN	535	Multivariate Methods	Advanced statistical methods used in business research. Multivariate analysis of association and interdependence.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:ECN 525 completed with a D or better, or currently enrolled
ECN	540	Forecasting	Foundation of statistical forecasts and forecast intervals; applies classical and computer-assisted forecasting methods to business forecasting problems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites:QBA 502, MAT 210 completed with a D or better, or currently enrolled
ECN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 712 and ECN 714 with a grade greater than a C
ECN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-12		
ECN	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	711	Macroeconomic Analysis I	Current theories of output, employment, inflation, and asset prices as well as major aggregates. Introduces dynamic optimization techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	712	Microeconomic Analysis I	Theory of production, consumer demand, resource use, and pricing in a market economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	713	Macroeconomic Analysis II	Focuses on growth theory, dynamic general equilibrium models, monetary theory, open-economy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	714	Microeconomic Analysis II	General equilibrium, welfare economics, production, and capital theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	715	Advanced Macroeconomic Analysis	Focuses on current research areas in macroeconomics and monetary theory with emphasis on methods in economic dynamics and numerical techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 711 with a grade of C or greater; Must have completed ECN 713 with a grade greater than a C
ECN	716	Advanced Economic Theory I	Economic behavior under uncertainty; markets and contracts under asymmetric information; the theory of games with incomplete information and applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 714 with a grade of C or greater; Must have completed ECN 712 with a grade greater than a C

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ECN	717	International Macroeconomics	Intertemporal approach to the current account, international business cycles, international risksharing and home bias, models of exchange rate determination, balance of payment crises, sovereign debt and default.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		
ECN	721	Labor Economics	Develops basic theoretical models for analyzing labor market issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	722	The Aggregate Labor Market	Extensions/criticisms of labor market theories. Applications to a variety of policy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	725	Econometrics I	Problems in the formulation of econometric models. Emphasizes estimation, hypothesis testing, and forecast of general linear models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	726	Econometrics II	Estimation and inference of qualitative and limited dependent variable models as well as general multiple equation models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 712 and ECN 714 with a grade greater than a C
ECN	727	Quantitative Methods in Economics	Generalized method of moment estimation, estimation with censored and truncated samples, nonlinear models, panel-data models, econometrics of nonstationarities.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater;
ECN	736	International Trade Theory	Theories of comparative advantage and their empirical verification. Theory and political economy of commercial policy. Resource transfers and the role of the multinational corporation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	738	International Finance	Foreign exchange market, balance of payments, and international financial institutions and arrangements; theory and applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	741	Public Economics	Economics of collective action, public spending, taxation, and politics. Impact of central governmental activity on resource allocation and income distribution.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: W.P. Carey Graduate degree-seeking students only; Must have completed ECN 712 with a grade of B or greater; Co-requisite: ECN 714
ECN	753	Industrial Organization	Analyzes structure, conduct, and performance in industrial markets; the economics of organizations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	760	Economics of Growth and Development	Economic problems, issues, and policy decisions facing the developing nations of the world.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 711 and ECN 712 with a grade greater than a C; Co-requisites: ECN 713 and ECN 714
ECN	770	Mathematics for Economists	Surveys mathematical ideas encountered in economics and econometrics: nonlinear programming, the Kuhn-Tucker theorem, concave programming, optimization over time.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	784	Internship		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-15		
ECN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-15		
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	SB	
ECT	311	Foundations/Programs/Policies/Practices	Foundations of early childhood education, including program, policies, practices, and early intervention; history, legislation, issues and trends, models, ethics, goals, and benefits of early childhood education and intervention.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 312, ECT 313, ECT 314, ECT 315 and ECT 396
ECT	314	Developmental Discipline/Classroom Organization	Theories and strategies to guide children's development toward becoming self governing; typical and atypical behaviors; implementing age-appropriate classroom management techniques that foster individual, social, and academic competence.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 311, ECT 312, ECT 313, ECT 315 and ECT 396

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECT	321	Administration/Evaluation of EC Programs	Administration and evaluation of early childhood programs. Emphasizes planning and evaluation; regulations; health, nutrition, and safety; operations, budgeting, and supervision of personnel.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 2 ECT, BLE 312, ECT 322, ECT 323, ECT 324 and ECT 397
ECT	322	Emergent Language/Lit I Development/Instruction/ Assessment	Language and literacy development; language acquisition; methods of facilitating oral language in relation to emergent reading and writing; methods of facilitating early literacy development; clinical observation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 2 Early Childhood , BLE 312, ECT 321, ECT 323, ECT 324 and ECT 397
ECT	324	Social Studies / Creative Arts in Early Years	Social studies and creative arts standards, curriculum, and instructional and assessment strategies for all young children; developmentally appropriate methods and strategies for effective learning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Block 2 Early Childhood , BLE 312, ECT 321, ECT 322, ECT 323 and ECT 397
ECT	397	Field Experience II	Instruction, observation, and management of small groups and the whole class. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Block 2 Early Childhood , BLE 312, ECT 321, ECT 322, ECT 323, ECT 324
ECT	411	Science as Inquiry: Development, Instruction, and Assessment	Content, instructional strategies, and assessment in early childhood science; age-appropriate standards; active investigation of science concepts; inquiry and collaborative learning; connections between science and other subject areas. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 412, ECT 413, ECT 414 and ECT 496
ECT	412	Early Math:Development/Instruction/Assessment	Content, instructional strategies, and assessment in early childhood mathematics; age-appropriate standards; active investigation of mathematics concepts and ideas; connections between mathematics and other subject areas.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 413, ECT 414 and ECT 496
ECT	413	Language/Literacy II Development/Instruction/Assessment	Extends ECT 322; language and literacy development; language acquisition; methods of facilitating oral language in relation to emergent reading and writing; methods of facilitating early literacy development; clinical observation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 412, ECT 414 and ECT 496
ECT	414	Social/Educational Policies Young Children/Families	Social policies at the national and state levels; values and assumptions of policies; political factors shaping policy and implementation; links between policy, educational practice, schools, and family functioning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 412, ECT 413 and ECT 496
ECT	477	Student Teaching: Ages 0-4	Student teaching in preschool classrooms serving children from birth to age 4; integrates all previous course work. Eight-week placement required. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	5.		Co-requisites: Early Childhood students; ECT 478 and ECT 479 or PDS (Professional Development School) student as appropriate
ECT	478	Student Teaching: K-3	Student teaching in kindergarten through grade 3 classrooms; integrates all previous course work. Eight-week placement required. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	5.		Co-requisites: Early Childhood students; ECT 477 and ECT 479 or PDS (Professional Development School) student as appropriate
ECT	479	Captstone Seminar in ECT	Reflective, experience-based integration of theory and practice; professional development for preschool through grade 3 teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Early Childhood students; ECT 477 and ECT 478 or PDS (Professional Development School) student as appropriate
ECT	496	Field Experience III	Instruction and management of small groups and substantial work with the whole class. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Early Childhood student; BLE 321, ECT 411, ECT 412, ECT 413 and ECT 414
ECT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
EDA	501	Competency/Performance in Educational Administration	Nature of educational administration and the concept of competency as it applies to educational administration.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	511	School Law	Constitutional, statutory, and case law that relates to all school personnel, pupils, the school district, and other governmental units. Contracts, dismissals, tenure, retirement, pupil injuries, liability of personnel and district, school district boundary changes, and bonding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	515	Administration and Technology in Learning	Provides students with hands-on exposure to technology that assists with school improvement initiatives.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	525	Human Relations and Societal Factors in Education	Interrelations between problems of educational administration and interdisciplinary social sciences. Communications skills, morale, authority, and perception. Concepts from political science, economics, and social-psychology useful to the administrator.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	534	Concepts of Learner-Centered Leadership	Principles, theories, attributes, and skills related to learner-centered leadership.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	544	Public School Finance	Measures of ability, efforts, and educational need; capital outlay funding; tax revenues; federal, state, and local financing alternatives; major issues and trends in the financing of public education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	548	School, Family, and Community Connections	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	555	Educational Facility Planning	School building needs, educational planning for facilities, responsibilities of architects, duties of contractors, and equipping and furnishing of school buildings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	571	School Business Management	Purchasing, budgeting, accounting, payroll management, auditing, financial reporting, insurance, and administration of nonteaching personnel and services.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	573	Human Resources Administration	Organization for human resources services; development of policy to govern the human resources function and its related processes.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	576	The School Principalship	Problem and lab approaches used to provide application of administrative activities of elementary and secondary schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
EDA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	611	Educational Policy and the Law	Emphasizes policy analysis and application of federal and state law to policy evaluation and development in public schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	624	Organizational Development and Management of Schools	Current organizational patterns for public schools. Emphasizes the organizations, human, and social dimensions on organizations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	645	Leadership Development for Education Leaders	Principles, theories, attributes, and skills related to individual leadership development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	675	Politics of Education	Uses social science theory and research to consider the political context of educational policy making.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	676	The School Superintendency	Critical examination of the school superintendency and the primary functions of this educational position. Includes the duties, responsibilities, activities, and problems of the school superintendent. Examines the unique leadership role of the school superintendent.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	677	Foundations of Educational Reform Movements	Historical and contemporary survey of curricular reform movements in the United States with emphasis on equity and social justice issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	679	Administration of Special Programs in Education	For personnel administering special educational services; responsibilities of superintendents, principals, supervisors, and directors for special education, student personnel, audiovisual, library science, and others.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	685	Education in Global Contexts	Global perspectives on education in contemporary society with emphasis on social, political, and economic factors that affect access and equity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-6		
EDA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	711	Administrative Leadership	Emphasizes research in leadership; application of research findings to administrative and supervisory functions in educational endeavors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	722	Administration of Instructional Improvement	Recent research relating to administrative and supervisory responsibilities for the improvement of the educational program. Effective processes by administrators, supervisors, consultants, and coordinators.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	723	Diversity in Education for School Leaders	Discusses current issues and leadership strategies for meeting the needs of diverse student populations combating inequity and inequality in education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EDA	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Educatnl Policy, Leadership & Curriculum T	1.		
EDA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Educatnl Policy, Leadership & Curriculum T	1-15		
EDA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-3		
EDA	501	Competency/Performance in Educational Administration	Nature of educational administration and the concept of competency as it applies to educational administration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	511	School Law	Constitutional, statutory, and case law that relates to all school personnel, pupils, the school district, and other governmental units. Contracts, dismissals, tenure, retirement, pupil injuries, liability of personnel and district, school district boundary changes, and bonding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	511-W	School Law	Interpreting state and federal law for application in school setting. Includes statutory authority for administrators, liability, and student constitutional rights.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	512	Critical Issues in Educational Leadership	Legal and ethical concepts of educational practices in federal and state laws affecting charter and independent schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	514	Leadership in Curriculum and Assessment	Curriculum and assessment responsibilities of school administrators.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	521	Evaluation of Teaching Performance	In-depth analysis of legal basis of teacher appraisal, teacher competency, measurement of teacher performance, and application of performance appraisal systems.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	524	Theory and Application of Educational Administration	History and development of public school administration in the United States; current organizational patterns for public education at local, intermediate, state, and national levels; current theoretical positions in educational administration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	544	Public School Finance	Measures of ability, efforts, and educational need; capital outlay funding; tax revenues; federal, state, and local financing alternatives; major issues and trends in the financing of public education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	547	Marketing and Community Relations for Educational Entrepreneurs	Strategic marketing and community relations concepts and their application, formulation, and execution in charter and independent schools and related services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	548	School, Family, and Community Connections	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	548-W	Community Relations in Education	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	555	Educational Facility Planning	School building needs, educational planning for facilities, responsibilities of architects, duties of contractors, and equipping and furnishing of school buildings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	556	Management and Human Resources for Educational Entrepreneurs	Entrepreneurial leadership and organization theory applied to managing human resources in competitive educational organizations by increasing the effectiveness of decision making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	557	Facilities Planning for Educational Entrepreneurs	Legal and practical implications involved in designing or refurbishing charter school facilities to maximize space to facilitate student development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	558	Financial Planning and Reporting for Educational Entrepreneurs	Financial planning and reporting concepts, requirements, and procedures for charter and independent schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	571	School Business Management	Purchasing, budgeting, accounting, payroll management, auditing, financial reporting, insurance, and administration of nonteaching personnel and services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	572	School-Site Business and Human Resources	Effective ethical models and strategies for organizing and administering the conduct of school site human resources administration and business affairs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	573-W	School Personnel Administration	Organization for personnel services; development of policy to govern selection, orientation, placement, remuneration, transfers, separations, and development of morale among instructional and noninstructional personnel.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	576	The School Principalship	Problem and lab approaches used to provide application of administrative activities of elementary and secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	576-W	Critical Issues in Educational Leadership	Explores current critical issues in school leadership, including student support and relationships with governmental agencies and the community.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		

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EDA	634	Instructional Leadership	Theory, practice, and issues in school change and reform with a focus on leading change efforts at the school site.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	675	Politics of Education	Uses social science theory and research to consider the political context of educational policy making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	679	Administration of Special Programs in Education	For personnel administering special educational services; responsibilities of superintendents, principals, supervisors, and directors for special education, student personnel, audiovisual, library science, and others.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDA	701	Assessment Policies, Issues, and Practices	Critical thinking about assessment data and other information sources to make inferences, judgments, and predictions about reality in schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	704	Leading Change in Educational Organizations	Develops understanding of dynamic and systemic nature of organizations, with emphasis on leadership for building organizational capacity and learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	772	School District Human Resources and Business Management	Effective ethical models and strategies for organizing and administering the conduct of school site human resources administration and business affairs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	773	The Superintendency and School District Leadership Roles and Responsibilities	Examines management roles and responsibilities of public school district superintendents and other leaders in identifying and addressing critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDA	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDC	510	Introduction to Gifted Education	Introduces gifted education and classroom applications in pre-K-12. Focuses on identification of giftedness and aligning instruction with specific needs and abilities of diverse gifted learners. Credit is allowed for only EDC 510 or 410.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	515	Social and Emotional Development and the Gifted Learner	Overview on matching instruction with the specific needs and abilities of diverse gifted learners with a focus on social and emotional needs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	542	Outdoor Education	Interdisciplinary field-oriented course designed to provide educators with basic knowledge of outdoor education and its relationship to the total school curriculum. Includes assigned fieldwork.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Students who have credit in EDC 442, may not enroll in EDC 542
EDC	560	Principles of Instructional Technology	Examines effective practices related to instructional technologies, including classroom delivery, student engagement, and evaluation of resources.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	562	Planning and Designing Curriculum with Media	Planning and design of curriculum and effective learning experiences supported by technology to maximize student learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	565	Research-Based Phonics for the K-8 Classroom	Current research in phonics instruction, including systematic and analytic approaches, and their application to classroom practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	568	Developing and Using Video in Instruction	Techniques for developing and using video for instruction; methods and materials for teaching video production in schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

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EDC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EDC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
EDC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EDC	320	Integrated Learning Experience I: Learning Climate	Explores factors contributing to a positive and productive classroom learning environment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	325	Integrated Learning Experience II: Instructional Design and Implementation	Design and implementation of developmentally appropriate instruction, and the alignment of instruction with district and state academic standards.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisite: must be in the ELEM EDUCATION BLK 2 professional program
EDC	330	Literacy I: Emerging Literacy and Phonemic Awareness	Development of language from birth to age 8, and appropriate strategies for promoting growth in speaking, listening, reading, and writing.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	335	Literacy II: Intermediate Literacy and Phonetic Principles	Strategies for teaching literacy in intermediate elementary classrooms, the application of phonetic principles to instruction, and integrating literacy across disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 2 professional program
EDC	340	Writing and the Professional Educator	Professional writing focused on foundational issues in education, including the culture of schooling, current social contexts, and educational law.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
EDC	345	Math Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing mathematics in grades K-8. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 2 professional program
EDC	350	Educational Technology I: Applications	Module focused on basic technological skills needed for managing classroom instruction.	N	LAB	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: must be in the ECEDC1 professional program. Co-requisite: EDC474
EDC	351	Educational Technology II: Instruction and Evaluation	Module focused on technology as an instructional medium, evaluation, and effective classroom use.	N	LAB	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: must be in the ELEM EDUCATION BLK 1 professional program. Co-Requisite: EDC474
EDC	352	Educational Technology III: Design	Module focused on instructional design utilizing a variety of technologies, including multimedia.	N	LAB	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: must be in the ELEM EDUCATION BLK 1 professional program. Co-requisite: EDC474
EDC	354	Educational Media in the Classroom	Designing and implementing educational media into the K-12 curriculum. Includes instructional design, evaluation of sources, and introduction to multimedia applications.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	355	Accommodating Instruction for Diverse Learners	Identifying and accommodating learners with special needs, including classroom adaptations in instruction and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 1 professional program
EDC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EDC	405	Classroom Management K-12	Strategies for effective classroom management in K-12 schools. Includes models, application, and evaluation of a variety of management systems.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	410	Introduction to Gifted Education	Introduces gifted education and implications to pre-K-12 classroom instruction. Focuses on identification of giftedness and planning instruction for diverse gifted learners. Credit is allowed for only EDC 410 or 510.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	420	Integrated Learning Experience III: Assessment	Principles related to classroom assessment, including the alignment of assessment to curriculum, test interpretation, and a variety of assessment techniques.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisites: must be in the ELEM EDUCATION BLK 3 professional program and have a University cumulative GPA of 2.50 or greater
EDC	425	Integrated Learning Experience IV: Advanced Management and Professional Knowledge	Explores issues related to professional knowledge, including interdisciplinary instruction, management, and the impact of the community on students' learning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisites: Must be in the ELEM EDUCATION BLK 4 professional program. Co-requisite: EDC484

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EDC	430	Literacy III: Interventions	Strategies for accommodating students struggling with learning, with a focus on the areas of literacy acquisition and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: must be in the ELEM EDUCATION BLK 3 professional program and have a University cumulative GPA of 2.50 or greater
EDC	440	Science Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing sciences in grades K-8. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 3 professional program
EDC	442	Outdoor Education	Interdisciplinary field-oriented course designed to provide students with basic knowledge of outdoor education and its relationship to the total school curriculum. Includes assigned fieldwork.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Students who have credit for EDC 542, may not enroll in EDC 442
EDC	450	Social Studies Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing social studies in grades K-8.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: must be in the ELEM EDUCATION BLK 3 professional program
EDC	455	Diverse Learners in the K-8 Classroom	Identifies and implements instructional practices for students with diverse needs in the elementary classroom. Laws related to special populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	460	Principles of Curriculum and Instruction in the K-8 Classroom	Current research and practices related to the K-8 curriculum, including application of motivation and learning theories, lesson development, and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	465	Literacy Instruction in the K-8 Classroom	Principles of a developmentally appropriate elementary literacy curriculum and related instructional practices. Encompasses reading, language arts, writing, and oral expression.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	474	Field Experience	Applies course content in a K-8 school. Emphasis on observation, classroom management, planning and delivery of instruction, and assessment. Fee.	Y	FLD	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EDC	475	Social Studies Instruction in the K-8 Classroom	Principles of a developmentally appropriate social studies curricula and related instructional practices. Emphasizes cultural diversity and implications of a global society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	480	Theory of Mathematics and Science Instruction	Examines theoretical and conceptual frameworks of elementary mathematics and science instruction. Emphasizes academic content standards and prerequisite knowledge. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		Pre-requisites: must be enrolled/enrolling in EDC425 and be in the ELEM EDUCATION BLK 4 professional program
EDC	485	Science Instruction in the K-8 Classroom	Principles of a developmentally appropriate science curricula and related instructional practices, with an emphasis on learner-centered methodologies. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EDC	495	Mathematics Instruction in the K-8 Classroom	Principles of a developmentally appropriate mathematics curricula and related instructional practices, including a range of learning theories and their application. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EDC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
EDC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EDP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	302	Assessment and Evaluation in Education	Applies assessment and evaluation principles to education contexts, using a case format.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
EDP	303	Human Development	Selected aspects of child and adolescent development. Emphasizes possibilities for influence by teachers and parents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	L or SB	Pre-requisites: Education or BIS students or completion of first year composition
EDP	310	Educational Psychology for Non-Teachers	Human behavior in educational situations. Individual differences, factors affecting learning, behavioral and cognitive learning, motivation, testing, and assessment.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	SB	
EDP	313	Childhood and Adolescence	Principles underlying total development of pre- and early-adolescent children. Emphasizes physical, intellectual, social, and emotional development with practical implications for teachers. Meets ADE requirement for one course in early adolescent psychology for middle grade endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	SB	
EDP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	454	Statistical Data Analysis in Education	Role of data analysis in research and decision making. Elements of exploratory data analysis, descriptive indexes, and statistical inference.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	
EDP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		

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EDP	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6		
EDP	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	L	Pre-requisites: Must be an Honors student
EDP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-7		
EDP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
EDP	502	Introduction to Data Analysis	Descriptive statistics, visual approaches, estimation, and inferential methods for univariate and bivariate educational research problems. Experience using statistical software.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	503	Introduction to Qualitative Research	Terminology, historical development, approaches (including ethnography, ethnomethodology, critical theory, grounded theory, and hermeneutics), and qualitative versus quantitative social sciences; methods of inquiry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	510	Essentials of Classroom Learning	Theoretical and empirical foundations of learning in the classroom milieu. Critical exposure to research and method in instructional psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	513	Child Development	Examines problems and achievements experienced by children growing up in a technological society. Emphasizes discovering the child's perspective.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	523	Educational Assessment	Increases teachers' and others' competence in classroom assessment, grading, and testing. Emphasizes integration of curriculum, instruction, and assessment.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	529	Lifespan Human Development	Issues and models of human development as it occurs across the lifespan.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	530	Theoretical Issues and Research in Human Development	Psychological theories, research, and methods relevant to human development, emphasizing the relations between early development and later performance.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	535	Applied Behavior Analysis	Principles of conditioning as applied to behavior. Current research on the experimental analysis of behavior in educational psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	536	Physiology of Behavioral Disorders	Critical study of nervous system, brain function for fundamental behaviors, and system dysfunctions in mental/neurological disorders.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	540	Theoretical Views of Learning	Classical and cognitive theories of learning, plus recent orientations. Illustrative experimental and rational foundations; implications for educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	541	Motivating Students to Learn	Examines multiple perspectives on motivation and the management of learning environments as bases for reflecting on educational practice.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	542	Research Methods in the Learning Sciences	Students read, design, and carry out original research in the learning sciences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student and completion of EDP 540 with a grade of C or better
EDP	544	Psychology of Reading	Alternate analyses of the reading process; designs and procedures for investigating instructional and noninstructional variables related to reading achievement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	545	Higher-Order Processes in the Learning Sciences	Examines original research on induction, deduction, analogy and transfer, knowledge representation, and other issues in learning.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	550	Introduction to Measurement in Education	Nature and types of educational measures. Critiquing and selecting appropriate measuring devices. Constructing measuring devices. Social controversies about tests.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	552	Multiple Regression and Correlation Methods	Educational applications of regression techniques. Quantitative and qualitative predictors, curvilinear trends, and interactions. Emphasizes analyzing data and interpreting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	554	Analysis-of-Variance Methods	Educational applications of ANOVA techniques. Between- and within-subjects designs, multiple comparisons. Emphasizes using statistical software and interpreting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	560	Individual Intellectual Assessment	Issues in administration and interpretation of individual intelligence tests. Theoretical basis, ethical considerations, and diagnostic use of test results. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: School Psychology Ph.D or Counseling Psychology Ph.D

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EDP	561	Lab in Psychological Assessment	Lab experience in administration, scoring, and interpretation of individual intelligence tests.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Co-enrolled in EDP 560
EDP	562	School Psychology: Ethics, Theory, and Practice	Provides information regarding the ethics, history, and theory of current school psychology practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	563	Interventions in School Psychology	Examines case-based consultation and consultation research relevant to school psychology practice.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	564	Academic Interventions	Skills-building course emphasizing academic interventions and outcome-based educational decisions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	566	Diagnosis of Learning Difficulties	Clinical diagnosis of learning difficulties, emphasizing specific academic problems. Use and interpretation of diagnostic instruments in practical school situations. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDP 560 and 562 with a grade of B or better
EDP	567	School Psychological Services to Minority Students	Historical perspectives and major issues in psychological and academic assessment and interventions with minority school children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	568	Diagnosis and Interventions for Children and Adolescents with Emotional Handicaps	Clinical diagnosis of emotional handicaps in children and adolescents with emphasis on interpretation of diagnostic instruments and designing appropriate interventions in school settings. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	651	Methods and Practices of Qualitative Research	Advanced course for students familiar with theory and extant work. Topics include data collection, analysis, reporting, and an extensive fieldwork project.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of COE 503 with a grade of C or better
EDP	652	Multivariate Procedures for Data Analysis	Educational applications of multivariate methods, including MANOVA, discriminant analysis, and exploratory factor analysis. Emphasizes analyzing data and reporting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EDP	654	Structural Equation Modeling in Educational Research	Educational applications of confirmatory factor analysis, path analysis, and full latent variable models. Experience in conducting analyses and reporting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDP	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDP	513	Child Development	Examines problems and achievements experienced by children growing up in a technological society. Emphasizes discovering the child's perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDP	514	Psychology of the Adolescent	Cognitive, physical, and social development of adolescents in contemporary society. Impact of family, school, and workplace on adolescent development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EDP	523	Educational Assessment	Increases teachers' and others' competence in classroom assessment, grading, and testing. Emphasizes integration of curriculum, instruction, and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDP	303	Human Development	Selected aspects of child and adolescent development. Emphasizes possibilities for influence by teachers and parents.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L or SB	Pre-requisites: Education or BIS students or completion of first year composition
EDP	311	Educational Psychology for Future Teachers	Planning and conducting effective instruction based on learning theories and principles.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3	SB	

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EDP	311	Educational Psychology for Future Teachers	Planning and conducting effective instruction based on learning theories and principles.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3	SB	
EDP	313	Childhood and Adolescence	Principles underlying total development of pre- and early-adolescent children. Emphasizes physical, intellectual, social, and emotional development with practical implications for teachers. Meets ADE requirement for one course in early adolescent psychology for middle grade endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
EDP	323	Professional Development, Learning, and Motivation	Applies educational psychology principles in classrooms; strategies for building classroom community; learner-centered and intentional teaching; and proactive professional development.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 321, BLE 322, BLE 324 and EED 397 OR Elem Ed, BLE 321, EED 324, EED 397 and RDG 322 OR PDS (Professional Development School) student as appropriate
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	
EDT	323	Computer Applications	Introduces database design principles using Microsoft Access and general programming concepts using the Visual Basic.Net programming language.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	Pre-requisites: EDT 321 or CSE 180 or any ACO, CIS, CSE, or CST course with a D or better or currently enrolled
EDT	329	Games, Simulations, and Virtual Environments	Focuses on the use of Gaming, Simulations, and Virtual Environments (GS/VE) in education and instruction. Examines how educational professionals and other practitioners can leverage students interests in digital culture to accelerate their learning. Participants explore the foundational, social, and cultural implications of these new media and the power they hold to engage learners in new ways. Discusses historical overview of GS/VE with an emphasis on educational applications. Analyzes the distinctive features of GS/VE from different pedagogical, psychological (cognitive/emotional), social, and entertainment perspectives. Participants learn how to analyze the design of games, simulations, and virtual environments, creating evaluative criteria for the selection of products in educational environments.	N	LEL	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDT	405	Presentation Technology for Multimedia	Explores multimedia hardware and software used in creating presentations for educational, corporate, and commercial applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	406	Computer Graphics and Animation	Study and application of design and animation techniques for use in video or computer-based presentations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	455	Authoring Tools	Use of current authoring tools to design and deliver computer-based instructional materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
EDT	501	Foundations and Issues in Educational Technology	Introduces educational technology. Examines accomplishments and issues in the field.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	502	Design and Development of Instruction	Design, development, and formative evaluation of objectives-based instructional materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	503	Instructional Media Design	Uses media selection, design, and production principles to prepare design specifications for solutions to instructional messages and products.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	504	Development of Computer-Based Instruction	Systematic design, development, and formative evaluation of computer-based instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	505	Multimedia Presentation Techs	Explores the design of multimedia presentations and the utilization of tools and resources to effectively deliver those presentations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	506	Educational Evaluation	Procedures for evaluating educational programs, training systems, and new-technology applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	507	Trends in Performance Improvement	Introduces the field of human performance technology. Emphasizes the analysis of performance problems, their causes, and interventions.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: EDT 501 with B or better
EDT	511	Technology Applications in Education	Integrates and evaluates emerging technologies into K-12 and adult teaching and learning.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EDT	520	Educational Technology and Training	Applies educational technology to training and human performance systems in business, industry, and government; emphasizes trends and project management.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 501 with a grade of C or better
EDT	523	Distance Education Theory and Practice	Explores development of distance learning principles by examining national and international systems and applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	525	Web Resources for Educators	Explores Web-based and distance learning applications for educators.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	527	Instructional Video Production	Design and production of instructional video.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 503 with a grade of C or better
EDT	528	Development of Web-Based Instruction	Design and development of online instruction using advanced technologies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	530	Technology Integration Methods across the Curriculum	Examines a constructivist approach to technology in education. Investigates technology as a catalyst for rethinking instructional goals and practices.	Y	LEL	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	531	Hypermedia	Design, development, and evaluation of open-ended, nonlinear computer-based tools and applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 455 with a grade of C or better
EDT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completion of EDT 501, 502, and EDT 503 with a grade of C or better
EDT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completion of EDT 501, EDT 502, and EDT 503 with a grade of C or better
EDT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	594	Conf and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	634	Technoliteracies	Online course explores the nature of digital communications and expanding definitions of what counts as text and as literate expression.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must be Post Bac, Non Degree Graduate or Degree Graduate. Students who have credit for RDG 634, may not enroll in EDT 634
EDT	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
EDT	701	Research in Educational Technology	Review and analysis of research studies in educational technology. Methodology for designing, conducting, and reporting educational technology research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 501 and 502 with a grade of C or better
EDT	702	Research in Technology-Based Education	Critical exposure to theories, research, and methods in technology-based education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDT	703	Research in Distance Education	Seminar with emphasis on research in telecommunications and distance education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: EDT 523 with a grade of C or better
EDT	704	Emerging Technologies in Education	Examines the role and impact of emerging technologies in education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
EDT	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completed EDT 501, EDT 502, and EDT 503 with a C or better
EDT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisites: Completion of EDT 701 with a grade of C or better
EDT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	530	Technology Integration Methods across the Curriculum	Examines a constructivist approach to technology in education. Investigates technology as a catalyst for rethinking instructional goals and practices.	Y	LEL	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	545	Using the Internet in Education	Explores the Internet as an educational tool for research, inquiry-based learning, and online learning communities. Incorporates constructivist theory.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	546	Using Technologies for Presentations	Students create presentations appropriate for educational settings and electronic portfolios on CD-ROMs using scanners, digital/video cameras, and multimedia software. fee	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	547	Technology in Language Arts and Social Studies Education	Examines numerous ways technology is used to enhance teaching and learning in language arts and social studies classrooms.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	548	Technology in Mathematics and Science Education	Examines numerous ways technology is used to enhance teaching and learning in mathematics and science classrooms.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	549	Using the Internet and Case Studies to Solve Educational Problems	Provides a model of the use of distance education technologies.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	555	Advanced Web Site Design and Development	Prepares technology leaders to design and create interactive school and district Web sites.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	556	Managing School Information Systems	Applied course based on constructivist theory that examines the techniques and strategies of networking information systems within educational settings.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	575	Critical Issues in Technology	Exploration and critical analysis of theoretical issues related to using technology in education. Students do literature reviews for EDT 593.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EDT	180	Computer Literacy	Introduces personal computer operations and their place in society. Problem-solving approaches using databases, spreadsheets, and word processing. Credit is allowed for only EDT 180 or 321.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	Students may not sign up for EDT 180 who have received a C or better in EDT 321.
EDT	300	Computers in Education	Introduces general computer applications, teacher utility programs, World Wide Web, and evaluation of educational software. Required for majors in the Mary Lou Fulton College of Education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission

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EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of personal Web site. 2hours lecture, 2 hours lab.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	Students may not sign up for EDT 321 who have received a C or better in EDT 180
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	
EED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EED	510	Teaching Writing in the Elementary Classroom	Develops rationale, theory, and related practices for teaching writing in K-8 classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	511	Principles of Curriculum Development	Contemporary curriculum theories. Curriculum as an interrelated entity. Principles of conceiving and effecting change.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	526	Communication Arts in the Elementary School	Critical examination of school language arts teaching, focusing on theoretical assumptions regarding oral- and written-language development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	529	Science in the Elementary School	Problems and trends of current programs. Development of a balanced and articulated science program.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	530	Outdoor/Environmental Education	Use of various outdoor settings as laboratories for classroom-related experience, study, observation, inquiry, research, and recreation. Includes strategies and materials for developing environmental literacy.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
EED	537	Mathematics in the Elementary School	Contemporary mathematics teaching. Content, materials, and approaches to instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	538	Teaching Social Studies with Literature	Develops the rationale, resources, and strategies for adopting a literature-based approach to social studies teaching in grades K-8.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	548	Teaching Geometry 5-8	Practical ideas and activities for teaching informal geometry grades 5-8, based on research on how students learn geometry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	576	Field Experience	Applies course content in elementary classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	0-3		Prerequisite: Valid copy of AZ DPS fingerprint card on file at ASU
EED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	581	Diagnostic Practices in Mathematics	Specific skills in diagnosing and treating children's learning difficulties in mathematics. Includes practicum experiences, both on and off campus, in identifying strengths and weaknesses and initial remediation.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EED	720	Language in Education	Sociolinguistic seminar on language issues in education, including language acquisition, classroom interaction, language attitudes, relation language, and class-gender ethnicity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	730	Discourse Analysis in Education	Surveys issues in and approaches to discourse analysis in educational research, with focus on students' projects using discourse analysis.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	511	Principles of Curriculum Development	Contemporary curriculum theories. Curriculum as an interrelated entity. Principles of conceiving and effecting change.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	521	Instructional Planning and Management in the Inclusive Classroom	Planning and delivering instruction; organizing and managing classrooms; making adaptations for English language learners and students with special needs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	526	Communication Arts in the Elementary School	Critical examination of school language arts teaching, focusing on theoretical assumptions regarding oral- and written-language development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	529	Science in the Elementary School	Problems and trends of current programs. Development of a balanced and articulated science program.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	531	Teaching with Educational Technology	Focuses on using technology in K-12 classrooms. Addresses the integration of technology in all curricular areas for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	537	Mathematics in the Elementary School	Contemporary mathematics teaching. Content, materials, and approaches to instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	538	Teaching Social Studies with Literature	Develops the rationale, resources, and strategies for adopting a literature-based approach to social studies teaching in grades K-8.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
EED	564	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	576	Field Experience	Applies course content in elementary classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	0-3		
EED	578	Student Teaching in the Elementary School	Supervised teaching for postbaccalaureate students, synthesized experience in curriculum, instruction, and classroom management.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
EED	578	Student Teaching in the Elementary School	Supervised teaching for postbaccalaureate students, synthesized experience in curriculum, instruction, and classroom management.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
EED	578-W	Student Teaching in the Elementary School	Student teaching in elementary education setting for students in the MEEd with Concentration in Teacher Certification.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
EED	579	Apprentice Teaching in Elementary Education	Apprentice teaching in elementary school classrooms. Must be taken four times for a total of 9 semester hours. Lab, field experience. Fee.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
EED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
EED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	324	Social Studies in Elementary Schools	Social studies education standards, curriculum, and instructional and assessment strategies for all children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed students; BLE 321, EDP 323, EED 397 and RDG 322 OR PDS (Professional Development School) student as appropriate
EED	331	Integrated Children's Literature with a K-3 Focus	Examines selection and use of a wide variety of children's literature to support the K-3 curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission Co-requisites: RDG 415, RDG 431, SPE 416, EED 496 and EED 433
EED	332	Integrated Children's Literature with a 4-8 Focus	Examines selection and use of a wide variety of children's literature to support the 4-8 curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission
EED	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
EED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	396	Field Experience I		N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EED	397	Field Experience II	Observation, instruction, and management of small groups and the whole class. fee	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Elem Ed/ESL or Elem Ed/BLE, BLE 321, BLE 322, BLE 324 and EDP 323 OR Elem Ed; BLE 321, EDP 323, EED 324 and RDG 322 OR PDS (Professional Development School) student as appropriate
EED	411	Science in Elementary Schools	Science education standards, curriculum, instructional and assessment strategies for all children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, BLE 414, EED 412, EED 496 OR Elem Ed, EED 412, EED 414, EED 498 and RDG 413 OR PDS (Professional Development School)
EED	412	Mathematics in Elementary Schools	Methods of teaching mathematics to all students at the K-8 level, instructional planning and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, BLE 414, EED 411, EED 496 OR Elem Ed, EED 411, EED 414, EED 496 and RDG 413 OR Special Ed, SPE 318, SPE 423, SPE 424, SPE 431, SPE 496 OR PDS (Professional Development School)
EED	412	Mathematics in Elementary Schools	Methods of teaching mathematics to all students at the K-8 level, instructional planning and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EED	414	Elementary School Curriculum and Organization	Rationales for instructional curricula; alternative curriculum designs and broad-based content; selected topics in school governance, finance, and law.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student, EED 411, EED 412, RDG 413 and EED 496 OR PDS (Professional Development School) student
EED	420	Science Methods, Management, and Assessment in the Elementary School	Examines philosophies of science and how these relate to the implementation, management, and assessment of science teaching. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; BLE 408, EED 455, EDT 300, RDG 432 and EED 496 completed with C or better or currently enrolled
EED	420	Science Methods, Management, and Assessment in the Elementary School	Examines philosophies of science and how these relate to the implementation, management, and assessment of science teaching. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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EED	433	Language Method Management and Assessment	Theory on the social nature of oral and written language and congruent teaching, management, and assessment practices. Lecture, discussion, lab.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EED	444	Organizing the Classroom Culture	Examines how teachers can create and maintain a classroom learning community within the context of an elementary school program.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EED	444	Organizing the Classroom Culture	Examines how teachers can create and maintain a classroom learning community within the context of an elementary school program.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EED	455	Social Studies Methods, Management, and Assessment in the Elementary School	Teaching methods, classroom management strategies, and assessment techniques for social studies instruction in the elementary grades.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; EED 433, RDG 415, EED 498, RDG 431 and SPE 416 completed with C or better or currently enrolled; EED 496 with Y or currently enrolled
EED	464	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EED	478	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum, instruction, and classroom management.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
EED	478-W	Student Teaching in the Elementary School	Student teaching in elementary school classrooms; integration of all previous course work.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Co-requisites: Elementary Education student; EED 479 OR PDS (Professional Development School) student as appropriate
EED	479	Capstone Seminar in Elementary Education	Reflective, experienced-based integration of theory and practice; professional development for K-8 teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elementary Education student; EED 478 OR PDS (Professional Development School) student as appropriate
EED	480	Mathematics Methods, Management, and Assessment in the Elementary School	Beginning course in the teaching, management, and assessment of mathematics in grades K–8.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Initial Teacher Certification Program Admission; BLE 408, EED 455, EDT 300 and RDG 432 completed with C or better or currently enrolled
EED	492	Honors Directed Study	Honors Directed Study	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	492	Honors Directed Study	Honors Directed Study	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisite: Must be an Honors student
EED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisite: Must be an Honors student
EED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisite: Must be an Honors student
EED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	496	Field Experience	Applies course content in a K?8 school classroom. Emphasizes observation, pupil management, planning and delivery of instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Initial Teacher Certification Program Admission
EED	496-W	Field Experience III	Instruction and management of small groups and substantial work with the whole class. fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Elementary Ed/ESL or Elementary Ed/BLE, BLE 413, BLE 414, EED 411, EED 412 OR Elem Ed, EED 411, EED 412, EED 414 and RDG 413 OR PDS (Professional Development School)
EED	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	
EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		

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EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
EEE	101	Introduction to Engineering Design	Introduces engineering design, teaming, engineering profession; computer models and programming; communication skills; design of electrical and computer-based systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	2.		
EEE	120	Digital Design Fundamentals	Number systems, conversion methods, binary and complement arithmetic, Boolean algebra, circuit minimization, ROMs, PLAs, flipflops, synchronous sequential circuits. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-3		
EEE	202	Circuits I	Principles for analyzing linear and nonlinear circuits. Uses SPICE and MATLAB. Design and measurement of linear analog electrical systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: EE student with Intro to ES; Pre/Co-requisite: PHY 131 and MAT 274 or 275 (with C or better if completed) OR Non-EE student with any Intro to Engr. Pre/Co-requisite: PHY 131 and MAT 274 or 275
EEE	203	Signals and Systems I	Introduces continuous and discrete time signal and system analysis, linear systems, Fourier, and z-transforms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: A grade of D or better in EEE 202 (or currently enrolled) or EEE 302 AND a grade of C or better in MAT 242, 342 or 343 or be co-enrolled in MAT 242, 342 or 343.
EEE	230	Computer Organization and Assembly Language Programming	Register-level computer organization. Instruction set architecture. Assembly language. Processor organization and design. Memory organization. IO programming, Exception/interrupt handling. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: A grade of D or better in CSE 100 or CSE 110 or CSE 200 AND a grade of D or better in CSE 120 or EEE 120.
EEE	241	Fundamentals of Electromagnetics	Vector analysis, differential operators, fourier analysis, scalar, vector fields, electro/magneto statics, time-varying fields, boundary value problems, dielectric, magnetic materials, Maxwell's equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: MAT 362 and PHY 131 with C or better or currently enrolled; ECE 201 with D or better OR MAT 267 or 272 and MAT 274 or 275 and PHY 131 with C or better or currently enrolled; EEE 202 with D or better or currently enrolled
EEE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		
EEE	304	Signals and Systems II	Communication, signal processing, control systems, continuous, discrete transforms, sampling theorem, analog, digital modulation, filter design, signal processing applications, state space. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 or EEE 303 completed with a grade of D or better or be currently enrolled in EEE 203
EEE	333	Hardware Design Languages and Programmable Logic	Develops digital logic with modern practices of hardware description languages. Emphasizes usage, synthesis of digital systems for programmable logic, VLSI. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students AND grade of D or better in CSE101,ECE100,200,EEE101 AND grade of D or better in CSE120 or EEE120 or be currently enrolled.
EEE	334	Circuits II	Design of analog and digital circuits. Diodes/BJTs/Mosfets. Digital and analog circuit building blocks. Fundamentals of mixed signal circuits. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE student and a grade of D or better in ECE201 or EEE202
EEE	335	Analog and Digital Circuits	Analog, digital microelectronic circuits and systems. Gate sizing, timing analysis, sequential digital circuits. Amplifiers, multi-stage op-amps, A/D, D/A converters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; Must have completed EEE 334 or ECE 334 with a grade of D or better or be currently enrolled in EEE 334
EEE	341	Engineering Electromagnetics	Time-varying electromagnetic fields, waves in homogeneous and stratified media, transmission lines, waveguides and cavity resonators, radiation and antennas. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS or BSE student; EEE 203 or EEE 303 completed with a D or better or currently enrolled in EEE 203; EEE 241 completed with D or better (or MAT 362 completed with a grade of C or better) or currently enrolled in EEE 241
EEE	350	Random Signal Analysis	Probabilistic and statistical analysis as applied to electrical signals and systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 203, EEE 303 or MAE 317 completed with a D or greater or currently enrolled in EEE 203 or MAE 317 or co-enrolling in EEE 203 OR Graduate Engineering students
EEE	352	Properties of Electronic Materials	Schrodinger's wave equation, potential barrier problems, bonds of crystals, the band theory of solids, semiconductors, superconductor dielectric, and magnetic properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS or BSE students; MAT 362 with C or better or EEE 241 with a D or better or currently enrolled; PHY 241 or 361 with a C or greater or currently enrolled; CHM 114, 115, 116 or 118 with a D or greater or currently enrolled
EEE	360	Energy Systems and Power Electronics	Conventional and alternate energy sources for power systems, three-phase analysis, AC generators, transformers, induction, DC motors, power electronic speed control. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE student; EEE 202 or ECE 201 completed with a D or better or currently enrolled in EEE 202; EEE 241 completed with a D or better or currently enrolled OR Graduate Engineering student
EEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		
EEE	404	Real-Time DSP Systems	Digital signal processors, translating signals and systems concepts into real-time multimedia and communications applications, real-time algorithms. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 (or EEE 303) with D or better; EEE 230 (or CSE 230, EEE 225 or EEE 226) with D or better
EEE	407	Digital Signal Processing	Time and frequency domain analysis, difference equations, z-transform, FIR and IIR digital filter design, discrete Fourier transform, FFT, and random sequences. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 or EEE 303 completed with a D or greater or currently enrolled in EEE 203; MAT 342 or 343 completed with a C or greater or currently enrolled

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EEE	425	Digital Systems and Circuits	Digital logic gate analysis and design. Propagation delay times, fan out, power dissipation, noise margins. Design of MOS and bipolar logic families, including NMOS, CMOS, standard and advanced TTL, ECL, and BiCMOS. Inverter, combinational and sequential logic circuit design, MOS memories, VLSI circuits. Computer simulations using PSPICE. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 335 completed with a D or better or currently enrolled
EEE	433	Analog Integrated Circuits	Analysis, design, and applications of modern analog circuits using integrated bipolar and field-effect transistor technologies. Fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 335 completed with a D or greater or currently enrolled
EEE	434	Quantum Mechanics for Engineers	Angular momentum, wave packets, Schroedinger wave equation, probability, problems in one dimension, principles of wave mechanics, scattering, tunneling, central forces, angular momentum, hydrogen atom, perturbation theory, variational techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 241 or EEE 340 completed with a grade of D or better or currently enrolled in EEE 241; EEE 352 or ECE 352 completed with a grade of D or better or currently enrolled in EEE 352
EEE	435	Fundamentals of CMOS and MEMS	Introduces basic CMOS processing and fabrication tools. Covers the fundamentals of thermal oxidation, CVD, implantation, diffusion, and process integration. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Must be an Engineering BS/BSE student AND earn a grade of D or better in EEE 436 or be co-enrolled in EEE 436.
EEE	436	Fundamentals of Solid-State Devices	Semiconductor fundamentals, pn junctions, metal-semiconductor contacts, metal-oxide-semiconductor capacitors and field-effect transistors, bipolar junction transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in EEE 352 or ECE 352.
EEE	437	Optoelectronics	Basic operating principles of various types of optoelectronic devices that play important roles in commercial and communication electronics; light-emitting diodes, injection lasers, and photodetectors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 436 with D or better
EEE	439	Semiconductor Facilities and Cleanroom Practices	Microcontamination, controlled environments, cleanroom layout and systems, modeling, codes and legislation, ultrapure water, production materials, personnel and operations, hazard management, advanced concepts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in EEE 435.
EEE	443	Antennas for Wireless Communications	Fundamental parameters; radiation integrals; wireless systems; wire, loop, and microstrip antennas; antenna arrays; smart antennas; ground effects; multipath.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 341 with D or better
EEE	445	Microwaves	Waveguides; circuit theory for waveguiding systems; microwave devices, systems, and energy sources; striplines and microstrips; impedance matching transformers; measurements. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 340 or EEE 341 completed with a D or better or currently enrolled in EEE 341
EEE	448	Fiber Optics	Principles of fiber-optic communications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 340 or EEE 341 completed with a D or better or currently enrolled in EEE 341
EEE	455	Communication Systems	Signal analysis techniques applied to the operation of electrical communication systems. Introduction to and overview of modern digital and analog communications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE; EEE 350 completed with a D or better or currently enrolled; EEE 203 or EEE 303 completed with a D or better or currently enrolled in EEE 203
EEE	459	Communication Networks	Fundamentals of communication networks. Study of Seven-Layer OSI model. Focus on functionality and performance of protocols used in communication networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE and a grade of D or better in EEE 202 or 203.
EEE	460	Nuclear Power Engineering	Radioactivity and decay. Radiation interactions and dose. Nuclear reaction, fission and fusion theory. Fission reactors, four factor formula, moderation. Nuclear power, TMI, Chernobyl. Nuclear fuel cycle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in PHY241, 294 or 361 OR a grade of D or better in CHM114, 115 or 116 and a grade of C or better in MAT 274 or 275 and a grade of C or better in PHY241 or 361.
EEE	463	Electrical Power Plants	Generation of electric power using fossil, nuclear, and renewable, including solar, geothermal, wind, hydroelectric, biomass and ocean, energy sources. Power plant thermal cycle analysis. Cogeneration and combined cycles. Economics, operations, and design of electric power stations. Energy storage.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; CHM 114 or CHM 116 with D or better or currently enrolled; MAT 274 or MAT 275 with C or better or currently enrolled; MAE 240 (or ECE 340) with D or better or PHY 241 with C or better or currently enrolled
EEE	470	Electric Power Devices	Analyzes devices used for short circuit protection, including circuit breakers, relays, and current and voltage transducers. Protection against switching and lightning over voltages. Insulation coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	471	Power System Analysis	Review of transmission line parameter calculation. Zero sequence impedance, symmetrical components for fault analysis, short circuit calculation, review of power flow analysis, power system stability, and power system control concepts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	473	Electrical Machinery	Operating principles, modeling and speed control of DC, brushless DC, and AC machines; power converters for DC and AC motors drives.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	480	Feedback Systems	Analysis and design of linear feedback systems. Frequency response and root locus techniques, series compensation, and state variable feedback. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in EEE203 or MAE318 or be currently enrolled.
EEE	481	Computer-Controlled Systems	Implements computer-based, embedded, control systems using MATLAB xPC Target toolbox. Small-scale, representative projects demonstrate theoretical issues and provide hands-on expertise.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 203 and EEE 230 (or CSE 230) with D or better or only MAE 318 with D or better
EEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EEE	488	Senior Design Laboratory I	Design process: research, concept, feasibility, simulation, specifications, benchmarking, and proposal generation. Technical communications and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.	L	Pre-requisites: Engineering BS/BSE student; ENG 102 (or 105 or 108), EEE 241, EEE 350, EEE 334, and 4 courses from EEE 304, 333, 335, 341, 352 or 360, all with D or better
EEE	489	Senior Design Laboratory II	Implement, evaluate, and document EEE 488 design. Social, economic, and safety considerations. Technical communications and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.	L	Pre-requisites: Engineering BS/BSE students; EEE 488 with D or better or be currently enrolled. Seniors or PostBacc undergraduates only.
EEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-6		Pre-requisites: Must be an Honors student in BSE Electrical Engineering; senior academic level
EEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	0-6	L	Pre-requisites: Must be an Honors student in BSE Electrical Engineering; senior academic level
EEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		Pre-requisites: Engineering BS/BSE student and a grade of D or better in EEE 433.
EEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-7		Pre-requisites: Engineering BS/BSE students only.
EEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-3		Pre-requisites: Senior Electrical Engineering BSE students only.
EEE	505	Time-Frequency Signal Processing	Joint time-frequency analysis of time-varying signals and systems; linear and quadratic time-frequency representations; applications in current areas of signal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students only.
EEE	506	Digital Spectral Analysis	Principles and applications of digital spectral analysis, least squares, random sequences, parametric, and nonparametric methods for spectral estimation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	507	Multidimensional Signal Processing	Processing and representation of multidimensional signals. Design of systems for processing multidimensional data. Introduces image and array processing issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	508	Digital Image and Video Processing and Compression	Fundamentals of digital image perception, representation, processing, and compression. Emphasizes image coding techniques. Signals include still pictures and motion video.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	509	DSP Algorithms and Software	Linear systems review, digital filter design, software aspects, DFT, FFT, random signals, programming aspects, applications projects, MATLAB and Java simulations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	510	Multimedia Signal Processing	Speech/audio coding algorithms. LPC, CELP, MPEG, Cell phone, DTV, cinema, and surround sound standards. MPEG/JPEG introduction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	511	Artificial Neural Computation Systems	Networks for computation, learning function representations from data, learning algorithms and analysis, function approximation and information representation by networks, applications in control systems and signal analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in CHE 518, MSE 518, or MSE 475 you may not enroll in EEE 518
EEE	523	Advanced Analog Integrated Circuits	Analysis and design of analog integrated circuits: analog circuit blocks, reference circuits, operational-amplifier circuits, feedback, and nonlinear circuits.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	524	Communication Transceiver Circuits Design	Communication transceivers and radio frequency system design; fundamentals of transceivers circuits; RF, IF, mixers, filters, frequency synthesizers, receivers, CAD tools, and lab work on IC design stations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	525	VLSI Design	Analysis and design of Very Large Scale Integrated (VLSI) circuits. Physics of small devices, fabrication, regular structures, and system timing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	526	VLSI Architectures	High throughput and low-power VLSI architectures for signal processing. Array processor systems; data path design and optimization; memory design; high-level synthesis; low-power design at system level, algorithm level, and architecture level.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	527	Analog to Digital Converters	Detailed introduction to the design of Nyquist rate, CMOS analog to digital converters.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG/MS/MSE/PHD/MCS students OR Science & Engr Of Materials students AND a grade of C or better in EEE 523.
EEE	530	Advanced Silicon Processing	Thin films, CVD, oxidation, diffusion, ion-implantation for VLSI, metallization, silicides, advanced lithography, dry etching, rapid thermal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	531	Semiconductor Device Theory I	Transport and recombination theory, pn and Schottky barrier diodes, bipolar and junction field-effect transistors, and MOS capacitors and transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	532	Semiconductor Device Theory II	Advanced MOSFETs, charge-coupled devices, solar cells, photodetectors, light-emitting diodes, microwave devices, and modulation-doped structures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students and a grade of C or better in EEE 531 or be currently enrolled OR Science & Engr Of Materials PhD students.
EEE	533	Semiconductor Process/Device Simulation	Process simulation concepts, oxidation, ion implantation, diffusion, device simulation concepts, pn junctions, MOS devices, bipolar transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	534	Semiconductor Transport	Carrier transport in semiconductors. Hall effect, high electric field, Boltzmann equation, correlation functions, and carrier-carrier interactions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	535	Electron Transport in Nanostructures	Nanostructure physics and applications. 2-D electron systems, quantum wires and dots, ballistic transport, quantum interference, and single-electron tunneling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	536	Semiconductor Characterization	Measurement techniques for semiconductor materials and devices. Electrical, optical, physical, and chemical characterization methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	537	Semiconductor Optoelectronics	Electronic states in semiconductors, quantum theory of radiation, absorption processes, radiative processes, nonradiative processes, photoluminescence, and photonic devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	538	Introduction to Microelectromechanical Systems	Microelectromechanical systems and devices emphasizing analytical and numerical modeling of actuation and sensing mechanisms with an overview of fabrication technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	539	Intro Solid-State Electronics	Crystal lattices, reciprocal lattices, quantum statistics, lattice dynamics, equilibrium, and nonequilibrium processes in semiconductors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	540	Fast Computational Electromagnetics	Method of moments, finite difference time-domain, finite element methods implemented using fast algorithms (wavelets, FMM, Nystrom) to gain high efficiency.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	541	Electromagnetic Fields and Guided Waves	Polarization and magnetization; dielectric, conducting, anisotropic, and semiconducting media; duality, uniqueness, and image theory; plane wave functions, waveguides, resonators, and surface guided waves.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	543	Antenna Analysis and Design	Impedances, broadband antennas, frequency independent antennas, miniaturization, aperture antennas, horns, reflectors, lens antennas, and continuous sources design techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	544	High-Resolution Radar	Fundamentals; wideband coherent design, waveforms, and processing; stepped frequency; synthetic aperture radar (SAR); inverse synthetic aperture radar (ISAR); imaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	545	Microwave Circuit Design	Analysis and design of microwave attenuators, in-phase and quadrature-phase power dividers, magic tees, directional couplers, phase shifters, DC blocks, and equalizers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	546	Advanced Fiber Optics	Theory of propagation in fibers, couplers and connectors, distribution networks, modulation, noise and detection, system design, and fiber sensors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	547	Microwave Solid-State Circuit Design I	Applies semiconductor characteristics to practical design of microwave mixers, detectors, limiters, switches, attenuators, multipliers, phase shifters, and amplifiers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	548	Coherent Optics	Diffraction, lenses, optical processing, holography, electro-optics, and lasers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	549	Lasers	Theory and design of gas, solid, and semiconductor lasers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	550	Transform Theory and Applications	Introduces abstract integration, function spaces, and complex analysis in the context of integral transform theory. Applications to signal analysis, communication theory, and system theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	551	Information Theory	Entropy and mutual information, source and channel coding theorems, applications for communication and signal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	552	Digital Communications	Complex signal theory, digital modulation, optimal coherent and incoherent receivers, channel codes, coded modulation, Viterbi algorithm.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	553	Coding and Cryptography	Introduces algebra, block and convolutional codes, decoding algorithms, turbo codes, coded modulation, private and public key cryptography.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	554	Random Signal Theory	Applies statistical techniques to the representation and analysis of electrical signals and to communications systems analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	555	Modeling and Performance Analysis	Modeling and performance analysis of stochastic systems and processes such as network traffic queueing systems and communication channels.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	556	Detection and Estimation Theory	Combines the classical techniques of statistical inference and the random process characterization of communication, radar, and other modern data processing systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	557	Broadband Networks	Physics of wireless and optical communications. Broadband multiplexing and switching methods. Blocking and queueing analysis. Network optimization, routing, and economics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	558	Wireless Communications	Cellular systems, path loss, multipath fading channels, modulation and signaling for wireless, diversity, equalization coding, spread spectrum, TDMA/FDMA/CDMA.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	562	Nuclear Reactor Theory and Design	Principles of neutron chain reacting systems. Neutron diffusion and moderation. One-, two-, and multigroup diffusion equation solution methods. Heterogeneous reactors. Nuclear fuel steady-state performance. Core thermal-hydraulics. Core thermal design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	563	Nuclear Reactor System Dynamics and Diagnostics	Time-dependent solution to neutron diffusion equation. Reactor kinetics and reactivity changes. Dynamics, stability, and control of reactor systems. Modeling neutronic and thermal processes. System characterization in time and frequency domains. Reactor surveillance and diagnostics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	564	Interdisciplinary Nuclear Power Operations	Nuclear power plant systems. Studies interrelationship and propagation of effects that systems and design changes have on one another, especially in relation to nuclear power plant safety and operations. Case studies and design projects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	571	Power System Transients	Simple switching transients. Transient analysis by deduction. Damping of transients. Capacitor and reactor switching. Transient recovery voltage. Travelling waves on transmission lines. Lightning. Protection of equipment against transient overvoltages. Introduces computer analysis of transients.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	572	Advanced Power Electronics	Analyzes device operation, including thyristors, gate-turn-off thyristors, and transistors. Design of rectifier and inverter circuits. Applications such as variable speed drives, HVDC, motor control, and uninterruptable power supplies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	573	Electric Power Quality	Sinusoidal waveshape maintenance; study of momentary events, power system harmonics, instrumentation, filters, power conditioners, and other power quality enhancement methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	574	Computer Solution of Power Systems	Algorithms for digital computation for the Newton and fast-decoupled power flow problem, and fault analysis. Sparse matrix and vector programming methods, creation of elimination trees, network equivalencing, solution of the least squares problem, introduction to state estimation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	575	Power System Stability	Dynamic performance of power systems with emphasis on stability. Modeling of system components and control equipment. Analysis of the dynamic behavior of the system in response to small and large disturbances. Knowledge of EEE470, 471 and 473 (or equivalents) is required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Graduate Engineering student
EEE	577	Power Engineering Operations and Planning	Economic dispatch, unit commitment, dynamic programming, power system planning and operation, control, generation modeling, AGC, and power production.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	579	Power Transmission and Distribution	High-voltage transmission line electric design; conductors, corona, RI and TV noise, insulators, clearances. DC characteristic, feeders voltage drop, and capacitors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	581	Filtering of Stochastic Processes	Modeling, estimation, and filtering of stochastic processes, with emphasis on the Kalman filter and its applications in signal processing and control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	582	Linear System Theory	Controllability, observability, and realization theory for multivariable continuous time systems. Stabilization and asymptotic state estimation. Disturbance decoupling, noninteracting control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	585	Digital Control Systems	Analysis and design of digital and sampled data control systems, including sampling theory, z-transforms, the state transition method, stability, design, and synthesis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	586	Nonlinear Control Systems	Stability theory, including phase-plane, describing function, Liapunov's method, and frequency domain criteria for continuous and discrete, nonlinear, and time-varying systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	587	Optimal Control	Optimal control of systems. Calculus of variations, dynamic programming, linear quadratic regulator, numerical methods, and Pontryagin's principle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	588	Design of Multivariable Control Systems	Practical tools for designing robust MIMO controllers. State feedback and estimation, model-based compensators, MIMO design methodologies, CAD, real-world applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Master of Engineering or Electrical Engineering MS/MSE/PHD students

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EEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Department of Electrical Engineering	1.		
EEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	606	Adaptive Signal Processing	Principles and applications of adaptive signal processing, adaptive linear combiner, Wiener least-squares solution, gradient search, performance surfaces, LMS/RLS algorithms, block time/frequency domain LMS.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	607	Speech Coding for Multimedia Communications	Speech and audio coding algorithms for applications in wireless communications and multimedia computing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	625	Advanced VLSI Design	Practical industrial techniques, circuits, and architectures appropriate to high-performance and low-power digital VLSI designs such as microprocessors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	627	Oversampling Sigma-Delta Data Converters	Introduces design and analysis of sigma delta oversampled data converters from an IC design perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	631	Heterojunctions and Superlattices	Principles of heterojunctions and quantum well structures, band lineups, optical, and electrical properties. Introduces heterojunction devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students and a grade of C or better in EEE 531 or currently enrolled OR Science & Engr Of Materials PhD students.
EEE	641	Advanced Electromagnetic Field Theory	Cylindrical wave functions, waveguides, and resonators; spherical wave functions and resonators; scattering from planar, cylindrical, and spherical surfaces; Green's functions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	643	Advanced Topics in Electromagnetic Radiation	High-frequency asymptotic techniques, geometrical and physical theories of diffraction (GTD and PTD), moment method (MM), radar cross section (RCS) prediction, Fourier transforms in radiation, and synthesis methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	647	Microwave Solid-State Circuit Design II	Practical design of microwave free-running and voltage-controlled oscillators using Gunn and Impatt diodes and transistors; analysis of noise characteristics of the oscillator.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	686	Adaptive Control	Main topics covered: adaptive identification, convergence, parametric models, performance and robustness properties of adaptive controllers, persistence of excitation, and stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, Electrical Engineering MS/MSE/PHD students
EEE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		

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EEE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	731	Advanced MOS Devices	Threshold voltage, subthreshold current, scaling, small geometry effects, hot electrons, and alternative structures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Electrical Engineering PhD students
EEE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-15		
EEE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Department of Electrical Engineering	1.		
EEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Department of Electrical Engineering	1-15		
EET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
EET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	301	Electric Circuit Analysis II	Analysis of continuous-time signals and linear systems of using Laplace and Fourier response of circuits.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; EET 208 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EET	304	Transmission Lines in Computer Networks	Theory and application of transmission lines in high-speed computer networks. Signal propagation and impedance matching.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		
EET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	396	Professional Orientation	Technical, professional, economic, and ethical aspects of electronics/computer engineering technology practice and industrial organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		
EET	401	Digital Signal Processing for Multimedia	Applies DSP techniques to multimedia. Digital filter analysis and design. Time and frequency techniques. Computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; MAT 262 or MAT 272 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EET	403	PLCs, Sensors and Actuators	Applications, programming, and troubleshooting using PLCs. Interfacing to motors, sensors, and actuators. Fluid power principles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EET	406	Control System Technology	Control system components, analysis of feedback control systems, stability, performance, and application.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3-4		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; EET 301 and MAT 262 (or MAT 272) with D or better. If you have credit in EET 506, you may not enroll in EET 406
EET	407	Energy Conversion and Applications	Electricity, magnetism, mechanics, heat and units, and three-phase circuits. Electrical machines, transformers, generation, transmission, and distribution of electrical energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Must be Tech Sci or Engr BS/BSE/NonDegree AND Univ Cum GPA is 2.25 or greater AND must have earned D or greater in EET 208 or currently enrolled OR must be Tech Sci or Engr NonDegree, Tech Sci BAS/MS/MSTECH or Master Computing Studies

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EET	410	Electronic Circuits II	Analysis and design of OP-amps, power amplifiers, and digital logic families. Feedback design using frequency response. Computer analysis and design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; EET 301 and EET 310 with D or better OR Technology and Innovation or Fulton Engineering graduate student or TS/ES non-degree student
EET	430	Instrumentation and Measurement Systems	Instrumentation and measurement techniques, sensors operating principles. Signal and error analysis. Signal conditioning and data acquisition.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 310 with D or better
EET	460	Power Electronics	Analyzes circuits for control and conversion of electrical power and energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; EET 301, EET 310 and EET 407 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	501	Digital Signal Processing Applications	Applies DSP techniques to the design and analysis of digital filters. Solution of filtering problems using computer techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EET	506	System Dynamics and Control	Time, frequency, and transform domain analysis of physical systems. Transfer function analysis of feedback control systems performance and stability. Compensation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	508	Digital Real-Time Control	Sample data control techniques and applications to process control.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	530	Electronic Test Systems and Applications	Analysis, design, and application of electronic test equipment, test systems, specifications, and documentation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 310 with D or better
EET	560	Industrial Electronics and Applications	Analysis, design, and application of special electronic devices and systems to industrial control, power, communications, and processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	578	Digital Filter Hardware Design	Hardware design of FIR and IIR filters, including adaptive filters, based on DSP chips. Develop new applications using DSP microprocessor systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	579	Digital Image Communication	Image capture, transform, compression, storage, and transmission. Provides computer environment (software and hardware) to emphasize the practical aspect.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EGR	101	Introduction to Engineering Design I	Introduces engineering as a profession, critical thinking in engineering design and modeling, team dynamics, engineering communication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
EGR	102	Introduction to Engineering Design II	Development and experimental verification of engineering models, engineering design, data acquisition, critical analysis of data, introduction to CADD, engineering communications.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: EGR 101 and MAT 170 with D or better; Pre or Co-requisite: ENG 101 (or ENG 105, 107 or 111) with D or better if completed
EGR	126	Engineering Applications of MATLAB	Using MATLAB to solve engineering problems; problem solving; computational and programming uses of MATLAB.	N	STO	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better
EGR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	201	Fall Multidisciplinary Project	Design, professionalism, and engineering practice developed in a multidisciplinary project setting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: APM 270 and EGR 102 with D or better
EGR	202	Spring Multidisciplinary Project	Design, problem solving, and engineering practice developed in a multidisciplinary project setting. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: APM 270 and EGR 102 with D or better
EGR	220	Computer Hardware for Engineers	Computer architecture, types of memory, operating systems and interrupts, buses and multiplexing, error detection and correction, Internet, the Web, encryption.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better or currently enrolled
EGR	221	Engineering Mechanics: Statics	Introduces the concepts of force, moment, and their relationships to the static equilibrium of a physical object.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and EGR 102 with D or better
EGR	222	Mechanics of Materials	Behavior of solid bodies subjected to loading. Stresses, strains, and displacements in bodies Analysis and design in solid mechanics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and EGR 102 with D or better
EGR	223	Engineering Thermodynamics	Heat; conservation of energy; first and second laws of thermodynamics; open and closed systems; entropy, enthalpy, and internal energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and CHM 113 with D or better
EGR	224	Engineering Materials Selection	Methods of selecting materials for specific applications based on mechanical loading, electrical, thermal, and environmental constraints.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102, APM 270 and PHY 121 with D or better
EGR	225	Instrumentation I	Introduces instrumentation systems and components, including transducers, associated electronics, and data acquisition and analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 and EGR 102 with D or better
EGR	226	Engineering Applications of LabView	Uses LabView to solve engineering problems; problem solving, data acquisition, and control using LabView.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better or currently enrolled

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EGR	227	Manufacturing Processes I	Overview of manufacturing processes, including operating principles, process selection, and production economics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102 with D or better
EGR	229	Engineering Ethics and Professionalism	Case studies in engineering ethics and professionalism.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 101 and ENG 101 with D or better
EGR	230	Fluid Mechanics	Fluid properties, fluid statics, fluid continuum systems, control volumes, boundary control surfaces, energy and momentum, hydraulics, pipes, open channels, turbomachines.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 221 with D or better
EGR	231	Engineering Mechanics: Dynamics	Rectilinear and planar motions of a particle and their relationships to the forces on it.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 with D or better
EGR	234	Structure and Properties of Engineering Materials	Relationships among material structure, processing, and properties. Mechanical, electrical, and magnetic properties. Corrosion.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: CHM 113 and MAT 170 with D or better
EGR	235	Instrumentation II	Frequency domain analysis of instrumentation systems and components, including transducers, associated electronics, and data acquisition and analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 225 and APM 270 with D or better
EGR	238	Feedback Control	Introduces modeling, analysis, and design of feedback control systems, including block diagrams, transient responses, and linear controllers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 with D or better
EGR	239	Engineering Economics	Economic dimensions in the evaluation of engineering alternatives. Income and cash flow. Time value of money. Cost/benefit analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102 and MAT 170 with D or better
EGR	280	Engineering Statistics	Applications-oriented introduction to statistics with computer-based experience using statistical software for formulating and solving engineering problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	CS	Pre-requisites: APM 270 with D or better
EGR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	301	Fall Concentration Project	Design, communication, and critical thinking developed in a project setting based on selected concentration. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: ENG 102, EGR 201 and EGR 202 with D or better; MAT 267, MAT 272 or MAT 294/APM 294 - Mathematics of Change III with C or better
EGR	302	Spring Concentration Project	Design, engineering practice, and communication developed in a project setting based on selected concentration. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 201 and EGR 202 with D or better or currently enrolled; Co-requisites: EGR 332 or EGR 342
EGR	331	Electrical Implementation Technology	Conducting electrical projects using the facilities of the ASU Polytechnic campus. Juniors majoring in engineering or technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 or EET 301 with D or better
EGR	332	Electrical Power and Heat	Generation and distribution of electrical power within localized systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	333	Distributed Circuits and Systems	Analysis and modeling of the generation and distribution of electrical signals and energy across distributed systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	335	Instrumentation III	Noise in electrical systems and associated limits on instrumentation and measurement.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better
EGR	336	Introduction to Mechatronics	Pneumatic, hydraulic, mechanical, and electrical actuators. Models of mechatronic systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 231, EGR 235 and EGR 238 with D or better
EGR	337	Remote Sensing and Imaging Principles	Remote sensing and imaging principles with a focus on land development applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: CHM 113, EGR 280, and MAT 272 with a grade of D or better, or currently enrolled
EGR	339	Fabrication of Electrical Systems	Overview of electrical fabrication techniques; design cycle time, cost, quality, reliability, product life cycle, and testing; programmable versus hard-wired implementation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	340	Engineering Thermo-Fluids I	First and second laws of thermodynamics, systems, processes, equations of state, property tables. Fluid statics, conservation of momentum, Bernoulli's equation, applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: PHY 111 or PHY 121 with D or better; APM 266, APM 271, MAT 266 or MAT 271 with D or better
EGR	341	Testing and Failure Prevention	Testing behavior of engineering materials under various loads. Evaluation of causes, mechanisms, and prevention of failure in structures and components.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 221, EGR 222 and EGR 231 with D or better
EGR	342	Computer-Aided Engineering	Theory and use of computer tools for high-level engineering analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: APM 271, CHM 113, EGR 221, EGR 222 and EGR 231 with D or better
EGR	343	Mechanics of Solid Materials	Studies strength and physical performance, such as deformations and load-carrying capacity, of natural and artificial solid structures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 221 and EGR 222 with D or better
EGR	346	Engineering Design	Applies fundamentals of mechanics in analysis and synthesis of machine components and systems, with emphasis on stress and failure.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
EGR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	401	Engineering Capstone Project I	First half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier course work. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: EGR 301 and EGR 302 with D or better or currently enrolled
EGR	402	Engineering Capstone Project II	Second half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier course work. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisite: EGR 401 with D or better taken within one previous term or currently enrolled
EGR	432	Engineering Thermo-Fluids II	Thermodynamic analysis of mixtures and power cycles. Design and analysis of fluid systems, conduction heat transfer, and introduction to convection and radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Students who have credit in MET 432, may not enroll in EGR 432
EGR	433	Transforms and Systems Modeling	State-space and transform-domain modeling and analysis of electrical and electromechanical systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better, MAT 274 or MAT 275 with D or better; MAT 342 or MAT 343 with D or better
EGR	434	Digital Signal Processing: Media Standards	Introduces signal compression and reconstruction; audio, image, and video media standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	435	Digital Signal Processing: Filtering	Introduces digital filtering, FIR and IIR filters, filter design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better

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EGR	436	Wireless Communication Principles	Introduces wireless digital communications systems; overview of important concepts, including coding, modulation, equalization, decoding, and multiple access protocols.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	437	Wireless Communication Protocols	Surveys commercially important digital wireless protocols.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	438	Electromagnetic Compatibility and Interference	Electromagnetic compatibility and interference. Grounding and shielding techniques. Cables, connectors, and leads. Regulations and standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better; PHY 331 with D or better
EGR	445	Mechanical Engineering Systems	Design and modeling of multicomponent electromechanical systems. Applications of computers, controllers, electronics using system hardware and software development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 301 or EGR 302 with D or better; EGR 238 with D or better
EGR	492	Honors Directed Study		N	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-6		
EGR	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering	1-6	L	Pre-requisites: Must be an Honors student
EGR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1.		
ELL	501	Multicultural Education	Examines the multicultural debate as a profound ideological struggle over the values of American culture.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	505	Language Minority Education	Historical, philosophical, theoretical, pedagogical, and legal foundations of language minority education in the United States. Credit is allowed for only ELL 505 or 405.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	510	Linguistics: First- and Second-Language Acquisition and Use	Examines current theories of first- and second-language acquisition and use and their application to ELL pedagogical contexts. Credit is allowed for only ELL 510 or 410.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	515	Structured English Immersion (SEI) Methods	Addresses the role of language and culture in teaching, program types, and specific SEI strategies for teaching English Language Learners (ELLs). Credit is allowed for only ELL 515 or 415.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	516	Advanced SEI Methods for Ells	More fully prepares teachers for linguistically diverse classrooms in which there are students learning through SEI methodology. Credit is allowed for only ELL 516 or 416.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	517	SEI Methods for Middle/High Schools	Introduces middle and high school teachers to Structured English Immersion methods for English Language Learners. Focuses on integration with academic content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 517 or 417.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	518	Advanced SEI Methods for Middle/High Schools	Provides middle/high school teachers with advanced training in using Structured English Immersion methods for English Language Learners in content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 518 or 418.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	520	Literacy Methods for English Language Learners (ELLs)	Teaching reading and writing to English Language Learners (ELLs) with emphasis on integrated curriculum and literature-based instruction. Credit is allowed for only ELL 520 or 420.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	525	Assessment and Evaluation for English Language Learners (ELLs)	Discusses assessment methods for English Language Learners (ELLs) in the K-12 classroom through psychometric and sociocultural models of assessment. Credit is allowed for only ELL 525 or 425.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	526	Advanced SEI Methods for Administrators	Provides current and future school administrators the foundations and skills necessary to plan, implement, and evaluate programs designed for English Language Learners in pre-K through 12th grade school settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	530	Community and Parental Involvement in Language Minority Education	Analyzes home-school collaboration using historical, educational, psychological, ethnic-social diversity, and sociological perspectives.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Students who have credit for ELL 430, may not enroll in ELL 530
ELL	535	Computer-assisted Language Learning (CALL) for English Language Learners (ELLs)	Examines current theories and practices surrounding the feasibility and efficacy of employing computer technology in ELL instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
ELL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ELL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
ELL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
ELL	405	Language Minority Education	Historical, philosophical, theoretical, pedagogical, and legal foundations of language minority education in the United States. Credit is allowed for only ELL 405 or 505.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	410	Linguistics: First - and Second-Language Acquisition and Use	Examines current theories of first- and second-language acquisition and use and their application to ELL pedagogical contexts. Credit is allowed for only ELL 410 or 510.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	415	Structured English Immersion (SEI) Methods	Prepares preservice teachers for linguistically diverse classrooms in which there are English Language Learners (ELLs) learning through Structured English Immersion (SEI) methodology. Focuses primarily on SEI strategies. Credit is allowed for only ELL 415 or 515.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	416	Advanced SEI Methods for ELLs	More fully prepares teachers for linguistically diverse classrooms in which there are students learning through SEI methodology. Credit is allowed for only ELL 416 or 516.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	417	SEI Methods for Middle/High Schools	Introduces middle and high school teachers to Structured English Immersion methods for English Language Learners. Focuses on SEI strategies in content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 417 or 517.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	418	Advanced SEI Methods for Middle/High Schools	Provides future middle/high school teachers with advanced preparation in using Structured English Immersion methods for English Language Learners in content areas. Partially fulfills SEI endorsement requirements. Credit is allowed for only ELL 418 or 518.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	420	Literacy Methods for English Language Learners (ELLs)	Teaching reading and writing to English Language Learners (ELLs) with emphasis on integrated curriculum and literature-based instruction. Credit is allowed for only ELL 420 or 520.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	425	Assessment and Evaluation for English Language Learners (ELLs)	Discusses assessment methods for English Language Learners (ELLs) in the K-12 classroom through psychometric and sociocultural models of assessment. Credit is allowed for only ELL 425 or 525.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	430	Community and Parental Involvement in Language Minority Education	Introduces home-school collaboration using historical, educational, psychological, ethnic-social diversity, and sociological perspectives.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Students who have credit for ELL 530, may not enroll in ELL 430
ELL	445	Practicum with English Language Learners (ELLs)	Pairs students seeking a full ESL endorsement with full ESL-endorsed classroom teachers. Addresses areas including second language acquisition and development, assessment, and pedagogy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ELL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ELS	501	Environmental Life Sciences: Grand Challenge: Global Climate Change	Introduces first-year graduate students to a range of fields related to the Environmental Life Sciences graduate program. Co-instructed by an interdisciplinary faculty team, combines overview lectures and active discussion of current literature in the fields of inquiry. Culminates in synthetic collaborative research proposals on topics that foster transdisciplinary approaches to environmental life science questions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ELS	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ELS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ELS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ELS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		

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ELS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
ELS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
EN	106	Lit Apprec		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of English	3.		
EN	584	Internship		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of English	3.		
ENE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-4		
ENE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) OR have completed WAC 107 with A, B, C or Y

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ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	111	Learning Community Composition I	Discovering, researching, and developing ideas in relation to the writer's purpose, subject, and audience. Only taught within a Liberal Arts (CLAS) Learning Community.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	112	Learning Community Composition II	Critical reading and writing; emphasis on rhetorical strategies of argumentation. Requires research paper. Only taught within a CLAS Learning Community.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 101 or ENG 111 with C or better
ENG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	197	Medical Writing	For students in the MedStart summer program. Designed to further critical thinking, reading, and writing skills for students interested in a medical career.	N	LEL	N	GNA	Liberal Arts and Sciences	Department of English	3.		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Literature, Writing and Film (BA, minor, certificate, and BIS), Pre Sec Educ- English, Sec Ed-English, English (Linguistics or Literature or Creative Writing) students; ENG 102, ENG 105 or ENG 108 with a C or better
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H & G	
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction. May be repeated when genres vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	214	English Grammar and Usage	Fundamentals of English grammar (word and phrase structure), English usage (punctuation, grammatical correctness), and grammatical and usage theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	215	Strategies of Academic Writing	Advanced course in techniques of analyzing and writing academic expository prose. Writing is research based.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	217	Writing Reflective Essays	Critical examination of the influences discourse has on formation of identity; narrative analyses of self and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	218	Writing About Literature	Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	245	Popular Culture Issues	Selected topics in various forms of popular culture related to written texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 101 & ENG 102 or ENG 105 or ENG 107 & ENG 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 101 and 102 (or 105) or both ENG 107 and 108 with C or better
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	1-6		
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	302	Business Writing	Advanced interdisciplinary writing course designed to improve the workplace writing competence of W. P. Carey School of Business professional and preprofessional students. Lecture, discussion, case studies, cooperative learning, interactive, Internet, student presentations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled
ENG	303	Classical Backgrounds of English Literature	Readings of Greek and Latin literature in translation as they relate to literature in English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	

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ENG	307	Writing Science Fiction	Writing science fiction, primarily the short story.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	310	Intermediate Creative Writing	Intermediate creative writing in genres other than poetry, fiction, or science fiction. May be repeated for credit when genres vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 210 with a grade of D or greater or be currently enrolled
ENG	312	English in its Social Setting	Introduces the sociolinguistic study of the English language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU or SB	
ENG	313	Phonology and Morphology	Introduces English morphology, phonology, etymology, and phonetic aspects of rhyme, alliteration, and other sound-based literary devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	314	Modern Grammar	Modern descriptive models of English grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	315	Medieval Literature in Translation	Medieval literature (insular and continental) in translation, from Beowulf to Malory (excluding Chaucer), emphasizing cultural and intellectual backgrounds.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	321	Introduction to Shakespeare	Shakespeare's major comedies, histories, and tragedies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	325	Restoration and the 18th Century	Writers and movements in nondramatic literature of the restoration and early 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	326	English Drama 1660-1800	English drama 1660-1800.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	328	The Novel to Jane Austen	From origins of prose fiction through the 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	
ENG	329	19th-Century British Fiction	Includes such authors as Austen, Dickens, Eliot, and Conrad.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	330	19th-Century British Poetry	Romantic and Victorian poets studied in context.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	331	American Drama	Major works in the development of American drama from its beginnings to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	
ENG	335	American Poetry	Themes and developments in American poetry.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	337	Major American Novelss	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	342	20th-Century British and Irish Literature	Major works in the development of literature since 1900, studied in their historical and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	345	Selected Authors or Issues	Different topics may be offered. Film topics with lab may carry 4 credits. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3-4		
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102 or 105 completed with a grade of C or better or be currently enrolled
ENG	353	African American Literature: Beginnings through the Harlem Renaissance	Historical survey of African American literary traditions and cultural contexts from slavery through the 1930s.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	
ENG	354	African American Literature: Harlem Renaissance to the Present	Historical survey of African American literary traditions and cultural contexts from the 1920s to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
ENG	355	European Dramatic Traditions	Development of European drama since Aeschylus.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	356	The Bible as Literature	Readings in the Jewish and Christian Scriptures in modern translation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	359	American Indian Literatures	Selected oral traditions and contemporary works by American Indian authors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisite: completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108. May not enroll in ENG 363 if you have credit in TCL 363
ENG	364	Women and Literature	Approaches to issues of gender and representation in literature by and about women.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	365	History of Film	Development of motion pictures.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3-4	HU	
ENG	369	Science Fiction Studies	Development of science fiction and fantasy literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	372	Document Production	Introduces document design and production. Practice in critique and in writing the content of publications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	374	Technical Editing	Fundamentals of editing technical and professional materials. Role of editors in analyzing, revising, and polishing manuscripts. Successful writer-editor dialogues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	385	Career Development for English Majors	Theoretical and practical aspects of career planning related to skills and interests developed in English studies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	387	Intermediate Creative Writing Workshop in Poetry	Intermediate writing of poetry. Requires term paper or equivalent out-of-class written work.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 210 or ENG 288 with C or better
ENG	388	Intermediate Creative Writing Workshop in Fiction	Intermediate writing of fiction. Requires term paper or equivalent out-of-class written work.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 288 with C or better
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	400	History of Literary Criticism	Major critics and critical traditions in the Western world.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & H	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	401	Topics in Critical Theory	Major critical schools of recent decades--postcolonialist, psychoanalytic, deconstructionist, feminist, new historicist.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	409	Advanced Screenwriting	Utilizing the elements of storytelling, students outline, develop, and write a feature-length screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites:ENG 102(or ENG 105/108); FMS 100; FMS 309 with grades of C or better, or currently enrolled
ENG	411	Advanced Creative Writing	Advanced writing in genres other than poetry, fiction, creative nonfiction, or screenwriting. May be repeated for credit when genres vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 310 with a grade of D or greater or be currently enrolled
ENG	412	Creative Nonfiction	Lectures, discussion, and criticism concerning techniques of writing creative nonfiction for publication.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 310 or ENG 411 with a grade of D or greater or be currently enrolled
ENG	413	History of English Language	Development of English from the earliest times to the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	414	Studies in Linguistics	Relationship of linguistics to literature, gender, power, and other social issues.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	415	Topics in Medieval Literature and Culture	Interdisciplinary approach to medieval literature, emphasizing cultural and historical context.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	416	Chaucer in Middle English	Yearly alternate between Chaucer's The Canterbury Tales and Troilus and Criseyde. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	418	Renaissance Literature	Selected topics, authors, contexts, and themes in Renaissance literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	419	English Literature in the Early 17th Century	Topics, authors, and themes in English literature, 1603-1660.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	421	Shakespeare	A selection of Shakespeare's works in different genres.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	422	Studies in Shakespeare	Topics for close examination in selected dramatic and/or nondramatic works.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 421 with a grade of D or greater or be currently enrolled
ENG	423	Renaissance Drama	Topics, authors, and themes in the drama of the Tudor and early Stuart periods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	424	Milton	Selected prose and poetry, emphasizing Paradise Lost, Paradise Regained, and Samson Agonistes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 with a grade of D or greater or be currently enrolled
ENG	425	Studies in Romanticism	Romanticism in continental, British, and American literature and culture.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 222 or 241with a grade of D or greater or be currently enrolled
ENG	426	British Culture and Empire	Examines British imperial culture in art and literature, 1870-1914, and postcolonial theory.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites:A grade of B or better in one course in ARS, ENG, or HST at 200 level or higher
ENG	427	Studies in 18th-Century Literature and Culture	Literary, social, and cultural issues of the period studied in an interdisciplinary format. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221 or 222 with a grade of D or greater or be currently enrolled
ENG	428	The Pre-Raphaelites	Visual and literary works by Victorian Pre-Raphaelites as works in themselves and through relations between images and texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-or Co-requisites:ARS 102, ENG 221, or HST 202 (with D or better if completed)
ENG	429	Studies in European Literature and Culture	Literary, cultural, and historical issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	430	Studies in Victorian Literature and Culture	Literary, social, and cultural issues of the period studied in an interdisciplinary format. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 222 with a grade of D or greater or be currently enrolled
ENG	434	Studies in the Literature and Culture of the Americas	Literature and culture of North America, South America, and the Caribbean. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU & C	Pre-requisites: Must have completed ENG 241 or 242 with a grade of D or greater or be currently enrolled
ENG	436	Studies in Anglophone Literature and Culture	Literary, social, and cultural issues of English-speaking former colonial territories. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 222 or 242 with a grade of D or greater or be currently enrolled
ENG	440	Studies in American Literature and Culture	Various genres in their literary, political, theoretical, and historical contexts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 241 or 242 with a grade of D or greater or be currently enrolled
ENG	442	Studies in 20th-Century British and Irish Literature and Culture	Major literary genres (novel, poetry, and drama) in their cultural and historical contexts. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 222 with a grade of D or greater or be currently enrolled
ENG	444	Studies in American Romanticism	Fiction, poetry, and essays of such 19th-century authors as Hawthorne, Emerson, Melville, Thoreau, Fuller, Whitman, and Dickinson. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 241 with a grade of D or greater or be currently enrolled
ENG	445	Studies in American Realism	Writers and influences that shaped the development of literary realism. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Must have completed ENG 242 with a grade of D or greater or be currently enrolled
ENG	448	Studies in Irish Literature and Culture	Themes and problems pertaining to Irish literature, film, and social and cultural history.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 222 with a grade of D or greater or be currently enrolled
ENG	452	Studies in the Novel	May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 221, 222, 241, or 242 with a grade of D or greater or be currently enrolled
ENG	453	Studies in the American Novel	Poetics and politics of the novel, 18th through 21st centuries. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 241 or 242 with a grade of D or greater or be currently enrolled
ENG	457	Studies in American Poetry	May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Must have completed ENG 241 or 242 with a grade of D or greater or be currently enrolled
ENG	459	Studies in African American/Caribbean Literatures	Studies in African American or Caribbean literatures according to genre, period, theory, or selected authors. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	461	Studies in Women and Literature	Advanced topics in literature by or about women.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	465	Studies in Film	Advanced topics in cinema.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3-4		
ENG	469	Science and Literature	Historical and theoretical links between science and literature, from Francis Bacon to the present, examined in cultural context. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	

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ENG	470	Symbols and Archetypes in Children's Literature	Various critical approaches and recurring themes studied in relation to classical and contemporary children's literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	471	Literature for Young Adults	Prose and poetry that meet the interests and capabilities of junior high and high school students. Stresses recent literature. A passing grade of at least "C" (2.00) required before students are permitted to student teach in English.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	472	Rhetorical Studies	Developments in theory and practice of major rhetorical inquiries.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Must have completed ENG 102, 105, or 108 with a grade of C or greater or be currently enrolled
ENG	476	Studies in Folklore	Surveys the history, genres, and dynamics of folklore, with emphasis on oral traditions.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	478	Studies in Modernism	Cultural, historical, and literary problems in American and European modernism.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	
ENG	479	Studies in Postmodernism	Literary, social, and cultural issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	480	Methods of Teaching English: Composition	Methods of instruction, organization, and presentation of appropriate content in the teaching of composition and other writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	482	Methods of Teaching English: Language	Developing the language skills of native and non-native speakers through a process approach and advanced writing workshops in junior and senior high schools.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	487	Advanced Creative Writing Workshop in Poetry	Advanced writing of poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 310 or ENG 387 with a C or better
ENG	488	Advanced Creative Writing Workshop in Fiction	Advanced writing of fiction.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 388 with a grade of C or better
ENG	490	Literary Forms: Theory and Practice in Poetry	Types, history, analysis of traditional forms, and contemporary adaptations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 411 or ENG 487, with a C or better
ENG	491	Literary Forms: Theory and Practice in Fiction	Types, history, analysis of traditional forms, and contemporary adaptations.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 488 with a grade of C or better
ENG	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	Department of English	1-6		Pre-requisites: Must be an Honors student
ENG	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	Department of English	1-6	L	Pre-requisites: Must be an Honors student
ENG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	495	Literary Forms: Theory and Practice	Types, history, analysis of traditional forms and contemporary adaptations. Separate sections for poetry, fiction. Each genre may be taken once.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 411 with C better
ENG	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-6		Pre-requisites: Must be an Honors student
ENG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-7		
ENG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-3		
ENG	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	502	Contemporary Critical Theories	Studies the principles and techniques of contemporary theory and criticism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	503	Comparative Literature, Theory, and Practice	Problems, methods, and principles of comparative analysis, illustrated by selected critical essays and literary/cultural texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	504	Cross-Cultural Studies	Theoretical and analytical issues for comparative research across distinct cultural regions and traditions. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	505	Writing Workshops	Intense poetry and fiction workshops for experienced writers, emphasizing individual style. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	506	Methods and Issues in Teaching Language	Developing the language skills of native and non-native speakers through a process approach and advanced writing workshops in junior and senior high schools.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	507	Methods and Issues in Teaching Composition	Up-to-date theory, practice, and implementation of secondary writing instruction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	517	History of the English Language	Surveys the development of the English language, with an emphasis on major linguistic transformations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	530	Old English	Study of Old English grammar, syntax, and phonology, with selected readings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	531	Old English Literature	Intensive literary, linguistic, and cultural study of Old English literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	532	Middle English Dialects	Study of the principal dialects of Middle English, with selected readings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	533	Studies in Medieval Literature	Selected topics in English literature from the 11th through the 15th centuries. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		

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ENG	534	Studies in Renaissance Literature	Selected topics and literary works studied in the contexts of English Renaissance culture. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	535	Studies in 18th- and 19th-Century British Literature	Selected topics, issues, figures, and genres in British literature and culture of the 18th and 19th centuries. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	536	Studies in American Literature before 1900	Selected topics, issues, figures, and genres in 17th-, 18th-, and 19th-century American literature, including the literature of conquest and contact. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	537	Studies in Modern and Contemporary British Literature	Selected topics, issues, figures, and genres in British literature and culture after 1900. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	538	Studies in Modern and Contemporary American Literature	Selected topics, issues, figures, and genres in American literature and culture after 1900. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	539	Studies in Modernist and Postmodernist Literature and Theory	Selected topics in Modernist and Postmodernist studies. May include literary and theoretical texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	540	Teaching Young Adult Literature	Issues and new approaches in teaching contemporary literature in high school.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	542	Studies in North American Ethnic Literatures	Selected works studied in their cultural contexts from authors representing ethnic experiences in the United States. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	543	Studies in Anglophone Literatures	Selected topics, texts, periods, literary trends in works by world authors writing in English. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	544	Studies in Colonial and Postcolonial Literature	Selected topics, periods, theories, and figures in works by authors representing colonial and postcolonial regions and/or experiences. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	545	Studies in Women's Literatures	Selected topics, texts, periods, and figures in works written by and/or about women, studied in their cultural contexts. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	546	Gender Studies	Selected topics, periods, and themes in the study of gender and sexuality, including attention to theoretical issues. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	550	Translation	Surveys theories and practices of translation into English. Considers target, audience and market. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	551	Rhetorical Traditions	Examines rhetorical traditions spanning ancient to contemporary rhetorics. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	552	Composition Studies	Selected topics in the history and theories of composition. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	553	Technologies of Writing	Critical study and cultural analysis of information technologies and their effects on various writing practices. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	554	Rhetorics of Race, Class, and Gender	Study of interdependent relationships of race, class, and gender in rhetorical constructions of self and community. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	556	Theories of Literacy	Examines various theories of literacy, their embedded values and assumptions, and their influences on academic scholarship and pedagogy. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	560	Genre Studies	Critical analysis and study of works from a single genre or comparative analysis and study of multiple genres. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	561	Film Studies	Analysis and study of film genres, cinematic techniques, and problems of interpretation and representation. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	562	forms of Poetry	Types, history, criticism, and schools of theory of metrical form. Analyzes lyric, narrative, and dramatic poetry. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	563	Forms of Fiction	Types, history, criticism, and schools of theory in the forms of fiction. Analyzes narrative and dramatic structure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		

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ENG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of English	1-12		
ENG	602	Advanced Studies in Theory and/or Criticism	Seminar courses on the principles, strategies, and applications of critical, cultural, and/or literary theory and/or criticism.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	603	Advanced Studies in Comparative Literature	Seminar courses on the problems, methods, and principles of comparative analysis. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	604	Interdisciplinary Cultural Studies	Seminar courses on work from literature, anthropology, and/or other disciplines, with an emphasis on cultural influences and functions. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	606	Advanced Studies in English Education	Current research, issues, and trends in English education. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	632	Advanced Studies in Medieval and Renaissance Literature and Culture	Seminar in works of the Medieval or Renaissance periods, studied in their cultural contexts. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	635	Advanced Studies in British Literature	Seminar courses on works produced in or about England, Scotland, and Wales, studied in their cultural contexts. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	636	Advanced Studies in American Literature	Seminar courses on works produced in or about the United States, studied in their cultural contexts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	639	Advanced Studies in Modernism and Postmodernism	Seminar courses on topics in Modernist and Postmodernist studies. May include literary and theoretical texts. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	642	Advanced Studies in Ethnic, Anglophone, or Post-Colonial Literatures	Seminar courses that consider the influence of cultural or geopolitical developments on the production and circulation of texts. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	645	Advanced Studies in Gender Issues	Seminar courses that consider the influence of gender on the production and circulation of texts. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	651	Advanced Studies in History and Theories of Rhetoric	Selected topics in the history and/or theory of rhetoric.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	652	Advanced Composition Studies	Selected topics on particular composition theories, practices, pedagogies, and figures. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	654	Advanced Studies in Rhetoric, Writing, Technology, and Culture	Advanced study of theoretical, methodological, and pedagogical issues concerning the interrelationships among rhetoric, culture, writing, and writing technologies. May be repeated for credit when topics vary.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	655	Disciplinary Discourses	Investigation of professional and disciplinary issues related to English studies. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	656	Studies in Cross-Cultural Discourse	Theoretical and methodological issues in the comparative study of discourses between cultures and communities of practice. May be repeated for credit when topics vary.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	661	Advanced Studies in Film	Seminar courses on topics, genres, and figures in film studies, including technical and theoretical issues. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	662	Poetic Genres	Creative writing courses in the long poem, the erotic image, death and transfiguration, reading and influence, and others. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	663	Fiction Genres	Creative writing courses in time and fiction, gothic fiction, myth in fiction, science fiction, and others. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	664	Mixed Genres	Creative writing courses in the prose poem, magical realism, the literature of obsession. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	665	Creative Methods	Creative writing courses in theory of the novel, poetics, story into film, and others. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	667	Issues in the Writing Professions	Focuses on career preparation, resources, the role of writing in the community, creative writing, and the Internet. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-15		
ENG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of English	1-15		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) OR have completed WAC 107 with A, B, C or Y
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: Literature, Writing and Film (BA, minor, certificate, and BIS), Pre Sec Educ- English, Sec Ed- English, English (Linguistics or Literature or Creative Writing) students; ENG 102, ENG 105 or ENG 108 with a C or better
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction. May be repeated when genres vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	

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ENG	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	221-W	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 101 & ENG 102 or ENG 105 or ENG 107 & ENG 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisites: Must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled OR be an Applied Science student
ENG	305	Classical and Biblical Backgrounds to Literature	Selected readings from the Bible and Greek and Latin literature in translation, emphasizing ideas, forms, and myths related to the development of English literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	311	Persuasive Writing	Advanced writing course that focuses on persuasive writing for diverse audiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	317	Cross-Cultural Writing	Cultural differences and their impact on writing and/or their role in miscommunication and misinterpretation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	
ENG	323	Rhetoric and Grammar	Practical course taught in the computer lab. Emphasizes rhetorical strategies and grammar for writers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	337-W	Major American Novels	Novels from the 19th century to the present studied in their historical and cultural contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	353-W	African American Literature: Beginnings through the Harlem Renaissance	Focuses on the history of African-American literature through the Harlem Renaissance, as exemplified in selected slave narratives, poems, and fiction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	354-W	African American Literature: Harlem Renaissance to the Present	Examines the literary productions of African-Americans from the Harlem Renaissance (about 1920) to the present focusing on fiction, poetry, drama, and essays.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	359-W	American Indian Literature	Selected oral traditions of American Indians and their influences on contemporary Native American literary works.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
ENG	363-W	Chicano Literature	Development of Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	Pre-requisite: completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108. May not enroll in ENG 363 if you have credit in TCL 363
ENG	365	History of Film	Emphasizes American film, with some study of European film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	369-W	Science Fiction and Fantasy	Development of science fiction and fantasy literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	386	American Gothic	The development of modern American Gothic as a literary form from Poe to Oates. Emphasizes the short story.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	387	Intermediate Creative Writing Workshop in Poetry	Intermediate writing of poetry. Requires term paper or equivalent out-of-class written work.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 210 or ENG 288 with C or better
ENG	388	Intermediate Creative Writing Workshop in Fiction	Intermediate writing of fiction. Requires term paper or equivalent out-of-class written work.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 288 with C or better
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	400	History of Literary Criticism	Major critics and critical traditions in the Western world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & H	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	412-W	Writing for Publication	Lectures and conferences concerning techniques of writing for publication.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108

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ENG	415-W	Medieval Literature	Medieval English and continental literature in translation, emphasizing cultural and intellectual backgrounds. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	418-W	European Renaissance Literature	Prose, poetry, and drama of Europe and England from 1492-1660 with an emphasis on cultural history.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	420	Multicultural Autobiographies	Examines the human experience via autobiographies and personal narratives. Multicultural, literary, and psychological perspectives on individual lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	421	Shakespeare	A selection of Shakespeare's works in different genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	423	Renaissance Drama	Topics, authors, and themes in the drama of the Tudor and early Stuart periods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
ENG	424	Milton	Selected prose and poetry, emphasizing Paradise Lost, Paradise Regained, and Samson Agonistes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	425-W	Romantic Poetry	Poetry of Wordsworth, Coleridge, Shelley, Keats, and Byron.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	431	Whitman and Dickinson	Evaluates the 19th-century American Literary Renaissance through the specialized examination of its poetry and authors in their historical context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	432	The American Renaissance	Novels, poetry, short fiction, and criticism of the major literary figures of the early to mid-nineteenth century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	433	Southern Writers	Analyzes Southern culture through the eyes of the region's novelists, short story writers, poets, filmmakers, photographers, and song writers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	437	The American Novel, 1900 - 1960	Developments in theory and practice of major novelists.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	438	American Novel Since 1960	Major novelists of the period. Developments in theory and practice.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	450	The British Novel	Focuses on the British novel from the 18th century to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	454	Gender and Literature	Focuses on the representation of gender in literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	455	Contemporary Women Writers	Critical examination of literature by contemporary women writers. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	457	Studies in American Poetry	May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	460	Ethnic Women Writers	Concentrates on selected women writers of the U.S. who are Native American, African American, Hispanic, and Asian-American.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	461	Studies in Women and Literature	Advanced topics in literature by or about women.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ENG	462	Africana Literature	Focuses on the literature of the African Diaspora, including texts from the Caribbean, the Americas, and Africa. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	463	African-American Literature	Thematic and cultural study of African-American literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	472	Rhetorical Studies	Developments in theory and practice of major rhetorical inquiries.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
ENG	476-W	Folklore in Everyday Life	Focuses on the discipline of folklore, the theories and methods related to the oral, material, and cultural practices of society.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU or SB) & C	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	477	World Literature	Introduces world literature, mostly outside the United States and England.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	478-W	Modernist Literature	Focuses on the international nature of Modernist literature. Authors studied may include Proust, Kafka, Joyce, and Woolf.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	479-W	International Postmodern Literature	Focuses on the international nature of Postmodernist literature. Authors studied may include Rushdie, Garcia Marquez, and Toni Morrison.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	492	Honors Directed Study		N	RSC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	493	Honors Thesis		N	THE	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisite:must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) OR have completed WAC 107 with A, B, C or Y
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) OR have completed WAC 107 with A, B, C or Y
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Literature, Writing and Film (BA, minor, certificate, and BIS), Pre Sec Educ- English, Sec Ed- English, English (Linguistics or Literature or Creative Writing) students; ENG 102, ENG 105 or ENG 108 with a C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction. May be repeated when genres vary.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction. May be repeated when genres vary.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	214	English Grammar and Usage	Fundamentals of English grammar (word and phrase structure), English usage (punctuation, grammatical correctness), and grammatical and usage theory.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	215	Strategies of Academic Writing	Advanced course in techniques of analyzing and writing academic expository prose. Writing is research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	215	Strategies of Academic Writing	Advanced course in techniques of analyzing and writing academic expository prose. Writing is research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	217	Writing Reflective Essays	Critical examination of the influences discourse has on formation of identity; narrative analyses of self and culture.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	217	Writing Reflective Essays	Critical examination of the influences discourse has on formation of identity; narrative analyses of self and culture.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	218	Writing About Literature	Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	218	Writing About Literature	Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	230	Introduction to Film Studies	Introduces the style and cultural significance of feature films.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Eng 101, 105, or ENG 107
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	245	Popular Culture Issues	Selected topics in various forms of popular culture related to written texts.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	245	Popular Culture Issues	Selected topics in various forms of popular culture related to written texts.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 101 & ENG 102 or ENG 105 or ENG 107 & ENG 108 with C or better

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ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 101 & ENG 102 or ENG 105 or ENG 107 & ENG 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 101 and 102 (or 105) or both ENG 107 and 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 101 and 102 (or 105) or both ENG 107 and 108 with C or better
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	298	Honors Directed Study		N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-6		
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have completed ENG 102, 105 or 108 with a grade of C or greater or be currently enrolled
ENG	303	Classical Backgrounds of English Literature	Readings of Greek and Latin literature in translation as they relate to literature in English.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	310	Intermediate Creative Writing	Intermediate creative writing in genres other than poetry, fiction, or science fiction. May be repeated for credit when genres vary.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 210 with a grade of D or greater or be currently enrolled
ENG	312	English in its Social Setting	Introduces the sociolinguistic study of the English language.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU or SB	
ENG	314	Modern Grammar	Modern descriptive models of English grammar.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	321	Introduction to Shakespeare	Shakespeare's major comedies, histories, and tragedies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
ENG	321	Introduction to Shakespeare	Shakespeare's major comedies, histories, and tragedies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
ENG	328	The Novel to Jane Austen	From origins of prose fiction through the 18th century.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
ENG	329	19th-Century British Fiction	Includes such authors as Austen, Dickens, Eliot, and Conrad.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
ENG	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	
ENG	335	American Poetry	Themes and developments in American poetry.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENG	337	Major American Novelss	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	337	Major American Novelss	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisite: ENG 102, ENG 105 or ENG 108 with C or better
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102 or 105 completed with a grade of C or better or be currently enrolled
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102 or 105 completed with a grade of C or better or be currently enrolled
ENG	354	African American Literature: Harlem Renaissance to the Present	Historical survey of African American literary traditions and cultural contexts from the 1920s to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
ENG	359	American Indian Literatures	Selected oral traditions and contemporary works by American Indian authors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
ENG	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Pre-requisite: completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108. May not enroll in ENG 363 if you have credit in TCL 363
ENG	364	Women and Literature	Approaches to issues of gender and representation in literature by and about women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	364	Women and Literature	Approaches to issues of gender and representation in literature by and about women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
ENG	385	Career Development for English Majors	Theoretical and practical aspects of career planning related to skills and interests developed in English studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
ENG	387	Intermediate Creative Writing Workshop in Poetry	Intermediate writing of poetry. Requires term paper or equivalent out-of-class written work.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 210 or ENG 288 with C or better
ENG	388	Intermediate Creative Writing Workshop in Fiction	Intermediate writing of fiction. Requires term paper or equivalent out-of-class written work.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 288 with C or better
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	411	Advanced Creative Writing	Advanced writing in genres other than poetry, fiction, creative nonfiction, or screenwriting. May be repeated for credit when genres vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 310 with a D or greater
ENG	412	Creative Nonfiction	Lectures, discussion, and criticism concerning techniques of writing creative nonfiction for publication.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 310, ENG 411 with a D or greater
ENG	465	Studies in Film	Advanced topics in cinema.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3-4		
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	487	Advanced Creative Writing Workshop in Poetry	Advanced writing of poetry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 310 or ENG 387 with a C or better

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ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	230	Introduction to Film Studies	Introduces the style and cultural significance of feature films.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Eng 101, 105, or ENG 107
ENH	245	Introduction to Writing Family History	Interdisciplinary writing course on theories, methodologies, and issues in writing family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	245	Introduction to Writing Family History	Interdisciplinary writing course on theories, methodologies, and issues in writing family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	246	Introduction to Researching Family History	Introduces research methods in family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	246	Introduction to Researching Family History	Introduces research methods in family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	311	Giants of Business	Explores leading CEOs and corporations from a humanities perspective.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1.		Pre-requisites: ENG 102, or ENG 105, or Eng 108 with a C or better or currently enrolled
ENH	317	Publishing in Literary Magazines	Analyzes the history, publishing preferences, editorial staff, and submission guidelines of four literary magazines.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	320	Writing a Personal History	Interdisciplinary writing course emphasizing theories, methodologies, and issues of composing personal histories.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	322	Editing Family History for Public Audiences	Fundamentals of editing family writing. Role of editors in analyzing, revising, and polishing manuscripts for publication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	332	Literature on Film	Studies literary texts and their adaptation to film.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102 (or 105, or 108) with a grade of C or better or be enrolled
ENH	346	Intermediate Family History Research	How to locate records, analyze and interpret evidence, and write a family history narrative.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENH 246 or HTY 246 with a C or better or currently enrolled
ENH	360	Travel Writing	Studies the genesis of travel writing, what theories inform travel writing, and the various genres of travel writing today.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, or ENG 105, or ENG 108, or ENG 112 with a grade of C or better
ENH	362	Digital Project Management for Humanities and Arts	Introduces Web design for the humanities; explores the use of the ADDIE process to create digital projects.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	364	Digital Media in the Humanities and Arts	Introduction to the digital arts is an introduction to the emerging "new media" with emphasis on still imaging, audio, video, multimedia and the World Wide Web.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	370	Art of the Personal Essay	Writing personal essays drawing on both research and personal experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	372	Environmental Creative Nonfiction	Lectures, discussion, and criticism concerning the literary history of nature writing and techniques of writing environmental creative nonfiction for publication.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	374	Environmental Issues in Literature and Film	Evaluates literary texts and films that address interconnected cultural, historical, and environmental issues.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	378	The American Southwest in Literature and Film.	Evaluates literary texts and films addressing the diverse literatures and cultures of the American Southwest.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	380	Medievalism in Modern Culture	Studies the representation of Medieval narratives, characters, themes, myths, and images in modern culture.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102(or 105, or 108) with a grade of C or better, or currently enrolled
ENH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	420	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENH	425	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENH	430	Studies in International Film	Studies non-American narrative film.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	436	American Film Musicals	A cultural history of American film musicals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENH	440	Great Directors	Studies the work of one or more influential directors.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, or ENG 105, or ENG 108, or ENG 112 with a grade of C or better
ENH	475	Environmental Literary Criticism	Evaluates the disparate critical practices that constitute what is the emerging literary project known as "ecocriticism" or "environmental literary criticism.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102 (or 105, or 108) with a grade of C or better, or be currently enrolled
ENH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
ENH	492	Honors Directed Study		Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6		
ENH	493	Honors Thesis		N	LEC	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
ENH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		Pre-requisites:Academic level:Senior; majors

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
ENH	520	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
ENH	525	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
EPA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EPA	795	Continuing Registration		N	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EPA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EPD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
EPD	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		Pre-requisite: EDP 710, EDP 712 or EDP 714 with C or better
EPD	710	Current Research in Design	Review and critical evaluation of contemporary literature and method in architecture, building science, interior design, industrial design, and landscape architecture. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		Pre-requisite: PhD in Environmental Design & Planning student
EPD	712	Current Research in Planning	Review and critical evaluation of contemporary literature and method in environmental planning, landscape ecology, urban design, and urban and regional planning. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		Pre-requisite: PhD in Environmental Design & Planning student
EPD	714	Current Research in History, Theory, and Criticism	Review and critical evaluation of contemporary literature and method in the theory and history of architecture, design, and planning. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		Pre-requisite: PhD in Environmental Design & Planning student
EPD	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EPD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-15		
EPD	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		
EPD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-15		
ESS	501	Environmental Social Science Theory and Practice I	First part of a two-semester core course investigating key conceptual domains of environmental social science from interdisciplinary and comparative perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ESS	502	Environmental Social Science Theory and Practice II	Second part of a two-semester core course investigating key conceptual domains of environmental social science from interdisciplinary and comparative perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ESS	510	Urban Environments	Investigates major issues and themes on the urban environment, from urban sprawl to environmental justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	513	Institutions	Studies formal and informal institutional arrangements for the governance of natural resources using case studies, experiments, and formal models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	514	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ESS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ESS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ESS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
EST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	200	Project Lab	Provides theoretical and practical overview of principles of measuring instruments and the main objective is to build good lab disciplines.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
EST	210	Circuit Analysis I	Parallel/Series circuits, ohm's law, network theorems, capacitors/inductors and transient analysis. Overview of electronic devices, BJTs, FETs, op-amps.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EST	310	Circuit Analysis II	Electronic device analysis and introduction to design. Power supplies, diode circuits, FETs, BJTs, op-amps. Emphasizes frequency response.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; EET 208 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EST	345	Planning and Delivering Engineering Projects	Project-based, hands-on course teaches team building, planning, soft skills, tracking progress, and powerful methods that deliver successful, on-time projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EST	370	Sensors	Overview of sensor technology, including mechanical, magnetic, radiation, thermal, chemical, and biological applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Must have received a D or better in EST 200 and EST 210
EST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		

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EST	482	Industrial Practice: Internship/Co-Op	Specially assigned or approved activities in electronic industries or institutions. Requires report.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
EST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
EST	490	Electronics Project	Individual or small group projects in applied electronics; emphasizes lab practice or hardware solutions to practical problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
EST	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
EST	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
EST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
EST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
EST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Must have an University Cum GPA of 3.00 or greater; Must be a Tech Science or Engineering senior OR a Graduate, NonDegree or Post Bacc student
EST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	372	Wireless Communication Systems	Components and signal processing for modern wireless communication systems, including major applications, problems, and new technologies.	N	LEL	N	OPT	College of Tech & Innovation	INACTIVE - Department of Electronic Systems	3.		Prerequisites: EST 310 with a grade of D or better
ETH	100	Introduction to Ethnic Studies	Undertakes an introductory comparative analysis of ethnic groups to understand cultural diversity within the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
ETH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	300	Principles of Ethnic Studies	Familiarizes students with a range of analytical and theoretical frameworks in the field of ethnic studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	C	
ETH	310	Research Methods in Ethnic, Racial, and First Nations Populations	Examines analytical tools and methodological approaches (ethnography, oral histories, digital-storytelling, information literacy) to study ethnic, racial, and first nations populations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
ETH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ETH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ETM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	301	Environmental Management	Focuses on knowledge and skills necessary to manage environmental programs. Perspectives include regulatory, individual, corporate, and consulting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	302	Water and Wastewater Treatment Technology	Explores the development of treatment technologies. Addresses regulatory standards. Emphasizes theory and practice of system design, lab analysis standards and procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	303	Environmental Regulations	Explores environmental laws, regulations, and directives. Addresses air, land, and water.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	360	Introduction to Emergency Management	Emergency management theories. Comprehensive emergency management. Mitigation, preparedness, response, and recovery. Post-disasters and policy formation. Current FEMA all-hazards approach.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	362	Managing Natural and Technological Disasters	Federal, state, and local responses to emergencies. Management of mass casualties, evacuation, sheltering, and terrorism; declaration of emergency procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	363	Computer Applications in Emergency Management	Explores specific computer programs that are currently in use for contingency planning, tracking chemical inventories, and response resources. Cross-listed as FSM 363. Credit is allowed for only ETM 363 or FSM 363.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	364	Toxicology and Biohazards in Emergency Management	Introduces poisons. Dose response routes of exposure and toxicokinetics. Diseases associated with natural disasters. Clinical presentation of treatments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	401	Hazardous Waste Management	Definition of hazardous waste, RCRA and CERCLA regulations, hazardous waste classification system. Overview of hazardous waste management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	402	Unit Treatment Technologies	Addresses various treatment technologies for contaminated air, water, and soil. Emphasizes design based upon medium, type of contamination, and concentration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	406	Environmental Chemistry	Examines reactions, transport, and fates of hazardous chemicals in water, soil, air, and living organisms.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	407	Occupational Hygiene	Overview of occupational health hazards, including recognition, evaluation, and control. Includes regulatory status and health standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	424-E	Comprehensive Emergency Management	Addresses theory and management techniques for emergency preparedness, including mitigation, preparedness, response, and recovery.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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ETM	424-M	Comprehensive Emergency Management	Addresses theory and management techniques for emergency preparedness, including mitigation, preparedness, response, and recovery.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	426-E	Environmental Issues	Explores the science and policy implications of contemporary problems that threaten the environment.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	426-M	Environmental Issues	Explores the science and policy implications of contemporary problems that threaten the environment.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	428	International Environmental Management	Emphasizes technological and economic pressures experienced by developing countries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	
ETM	460-E	National Incident Management System (NIMS)	Covers concepts, terminology, players, compliance requirements, including doctrine of National Incident Management System per HSPD-5. Discussion of National Response Plan.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	460-M	National Incident Management System (NIMS)	Covers concepts, terminology, players, compliance requirements, including doctrine of National Incident Management System per HSPD-5. Discussion of National Response Plan.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	461	Homeland Security	In-depth analysis of policies, procedures, and organizational structure for effective homeland security program. Covers all hazard/all risk philosophy. Credit is allowed for only ETM 461 or 561. Prerequisite: junior or senior standing or instructor approval.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	468	Simulation and Exercising	Requirements, planning, conduct, and critique of exercises related to emergency planning. Emphasizes realism using moulage and props.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	469	Terrorism Defense	Explores the background and evolution of terrorism. Presents specific tactics for preparation for and response to acts of terrorism.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	501	Principles of Hazardous Materials and Waste Management	Foundation for courses in curriculum. Topics include definitions of toxic and hazardous substances and wastes, RCRA classification, and OSHA criteria.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	502	Regulatory Framework for Toxic and Hazardous Substances	Examines federal, state, and local regulations for hazardous materials and wastes. Includes history and trends in regulatory development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	503	Principles of Toxicology	Interaction of chemicals with life and environment. Mechanisms of toxic action, dose-response relationships, toxicity testing models, predictive toxicology, and epidemiology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	504	Technology for Storage, Treatment, and Disposal of Hazardous Materials	Current and state-of-the-art technologies and future trends for storage, treatment, and disposal of hazardous materials and waste.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	505	Quantitative Analysis and Practical Laboratory Techniques	EPA methodologies for sampling and analysis of soils and water. Includes quality assurance and regulatory requirements. Lab is arranged off site.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	506	Chemistry of Hazardous Materials	Chemistry and toxicology of hazardous chemicals. Topics include proper handling, storage, transportation, and disposal.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	507	Industrial Hygiene	Emphasizes chemical hazards in industrial settings. Topics include recognizing and measuring hazards, control techniques, and regulatory standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	520	Sustainability and Sustainable Development	Explores broad field of environmental sustainability with U.S. and international coverage of green living practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	522	Air Pollution and Toxic Chemicals	Examines issues in the measurement analysis and control of toxic chemicals in air pollution.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	523	Soils and Groundwater Contamination	Theoretical and practical hydrogeology as it applies to cleaning up contamination. Investigative techniques, monitoring, risk assumptions, and assessment methodology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	524	Integrated Emergency Management	Theory and practice of comprehensive emergency management. Explores scope and function of Department of Homeland Security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	525	Risk Assessment for Hazardous Materials	Applies the risk assessment process in situations ranging from hazardous facilities regulation to toxic substances in the environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	526	Current Environmental Technology Issues	In-depth study of current issues in environmental technology facing both the private and public sectors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	527	Environmental/Resources Regulations Concepts	Develops environmental regulations from common law to statutory requirements. Emphasizes Superfund, hazardous materials, toxics, and liability contracts.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	528	International Environmental Management	Studies environmental issues and laws outside the U.S., impact of free trade, and multinational corporations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	540	International Environmental Law and Policy	Studies international environmental agreements, enforcement mechanisms, and the role of NGOs and international organizations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	560	Terrorism and Weapons of Mass Destruction	Historical evolution of terrorism and weapons of mass destruction. Analyzes current theories and mitigation, preparedness, and response tactics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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ETM	561	Homeland Security	Presents skills necessary to develop policies, strategies, programs, and organizational structure of an all hazards/all risk homeland security program. Credit is allowed for only ETM 561 or 461.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	567	Information Technology in Emergency Management	Provides theory and application of computer-based programs in emergency management and the use of various emergency modeling programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	571	The Foundations of Homeland Defense and Security	The enemy, policies, key players, and legal issues surrounding homeland defense and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	572	Multidisciplinary Approaches to Homeland Defense and Security: Collaborating to Integrate	Multidisciplinary approach to prevention, mitigation, preparedness, response, and recovery from incidents of national significance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	573	Strategic Planning and Organizational Imperatives in Homeland Defense and Security	Efforts to integrate and mobilize government and private sector resources for homeland defense and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	574	Special Topics in Homeland Defense and Security	Discusses contemporary challenges of asymmetric warfare, terrorism, and the virtual global battlespace, as well as emerging threats to homeland security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ETM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ETM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		
ETM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		
EXW	100	Introduction to Health and Wellness	Current concepts in health, exercise, and wellness. Emphasizes personal health, theories, attitudes, beliefs, and behaviors.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	
EXW	105	Physical Activity Instruction: Beginning	Beginning instruction in a variety of physical activities such as aerobics, aquatics, racquet sports, physical conditioning, and golf. Y grade only. May be repeated for credit. 2 hours per week. fee	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
EXW	205	Physical Activity Instruction: Intermediate	Intermediate-level instruction in a variety of physical activities. Continuation of EXW 105. Y grade only. May be repeated for credit. 2 hours per week. fee	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Must have completed EXW 105 with a C or greater
EXW	212	Instructional Competency Laboratory	Methods of instructing and leading fitness activities including aerobic, resistance, and flexibility activities. May be repeated for credit.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Must be a Exercise Wellness student
EXW	215	Physical Activity and Healthy Lifestyles	Applies principles of physical activity to personal fitness testing and program planning for people of all ages. Telecampus course. Not open to Exercise and Wellness majors or to students with credit in EXW 325.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Non-EXW students; Credit is allowed for only EXW 215 or EXW 325
EXW	300	Foundations of Exercise and Wellness	Principles and foundations of fields of study related to health promotion, physical activity, and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisites: EXW 100 or KIN 100 with a D or better, or co-enrolled in EXW 100 or KIN 100
EXW	301	Concepts of Fitness and Wellness	Guidelines for achieving health benefits of physical activity and other healthy lifestyles. Telecampus course. Not open to Exercise and Wellness majors or to students with credit in EXW 325.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Non-EXW students; Students may not enroll for EXW 301 who have received a D or better in EXW 325
EXW	302	Fundamentals of Wellness	Overview of fundamental health, exercise and wellness concepts. Emphasizes personal wellness assessment and application.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	
EXW	305	Physical Activity Instruction: Advanced	Advanced-level instruction in a variety of physical activities. Continuation of EXW 105. May be repeated for credit. Y grade only. 2 hours per week. fee	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	310	Computer Skills and Technology for Exercise and Wellness	Applies computer technology to principles of social marketing, tailored communication, e-health consumerism, and statistical analysis.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	CS	Pre-requisites: Must be a Exercise Wellness student; must have completed MAT114, MAT117, MAT119, MAT142 or MAT170 with a C or greater
EXW	311	Special Populations in Exercise and Wellness	Introduces the challenged population and surveys the agencies that work with special populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	315	Physiological Foundations of Movement	Studies human movement with emphasis on physiological function of the body in response to physical activity and fitness training. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: BIO 201 and BIO 202 with C or better
EXW	320	Program Development and Leadership	Principles of planning, organizing, promoting, and leading fitness and wellness programs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

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EXW	322	Spa Management I	History of the spa industry. Overview of different types of spas, spa programs and services, facilities and equipment, operational procedures and systems, the wellness component of spas, and computer applications in spa operations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
EXW	325	Fitness for Life	Physical fitness and benefits of exercise with emphasis on self-evaluation and personalized program planning for a lifetime. Not open to students with credit in EXW 215 or 301.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Students may not sign up for EXW 325 who have received a D or better in EXW 215 or EXW 301
EXW	330	Kinesiological Foundations of Movement	Study and consideration of human movement with emphasis on kinesiology principles and their application to movement and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: BIO 201 with C or better
EXW	342	Health Behavior Change	Examines major theories of health behavioral change. Develops intervention strategies and techniques employed to facilitate health behavioral change.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed PGS 101 with a C or greater
EXW	346	Health Promotion and Program Evaluation	Introduces and applies theory-based concepts and methods of health promotion and program evaluation.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: EXW 300 with C or better; EXW 342 with C or better
EXW	350	Substance Abuse and Addictive Behavior	Studies addictive substances, their pharmacology and effects. Psychosocial risk factors for, and consequences of, substance abuse.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	380	Body Image and Wellness	Explores body image in American culture from physical, psychological, historical, and societal perspectives.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed NTR 241 and PGS 101 with a C or greater
EXW	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	400	Stress Management for Wellness	Examines the stress response and management from a behavioral perspective as it pertains to individuals or groups.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed PGS 101 with a C or greater
EXW	420	Exercise Testing	Theoretical basis and practical application of pre-exercise screening, exercise testing, estimates of energy expenditure, and interpretation of results. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Must have completed EXW 315 with a C or greater
EXW	425	Exercise Prescription	Theoretical basis for and application of general principles of exercise prescription to various ages, fitness levels, and health states.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: EXW 315 with C or better; EXW 330 with C or better; Pre/Co-requisites: EXW 420 with C or better if completed
EXW	442	Physical Activity in Health and Disease	Examines the role of physical activity and fitness in the development of morbidity and mortality throughout the human life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: EXW 300 with a D or better
EXW	444	Epidemiology	Introduces epidemiological concepts and prepares the student to read, comprehend, and report epidemiological research.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 300 and EXW 310 with a C or greater
EXW	450	Cultural and Social Issues in Exercise and Wellness	Examines contemporary sociocultural issues and social determinants of health and physical activity. Focuses on health disparities, obesity, and social stressors.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	(L or SB) & C	Pre-requisites: PGS 101 and EXW 300 with C or better
EXW	460	Resistance Training Application and Theory	Fosters critical thinking as it applies to resistance training theory.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 315 with a C or greater
EXW	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	FLD	Y	GNA	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Exercise and Wellness concentration students with EXW 400, 420, and 425 with C or better or EXW Health Promotion concentration with EXW 346, and 444 with C or better
EXW	492	Honors Directed Study		N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
EXW	493	Honors Thesis		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
EXW	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		
EXW	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
EXW	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	501	Research Statistics	Statistical procedures; sampling techniques, hypothesis testing, and experimental designs as they relate to research publications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	505	Applied Exercise and Wellness Laboratory Techniques	Investigative techniques used in the applied exercise testing/prescription lab. Emphasizes cardiorespiratory assessment, energy balance, body composition, and electrocardiography. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	534	Sports and Fitness Conditioning	Bases of sports and fitness conditioning, including aerobic and anaerobic power, strength, flexibility, and analysis of conditioning components for sports and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	536	Physiological Aspects of Physical Activity and Chronic Disease	Role of physiological mechanisms associated with acute and long-term physical activity and its influence on chronic disease and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	538	Obesity, Exercise and Health	Critically examines scientific and medical evidence concerning obesity, exercise, and health across the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

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EXW	540	Psychosocial Issues in Exercise and Wellness: Stress, Coping, and Resilience	Critically explores the impact of psychological and social factors on human wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	542	Health Promotion	Theory and research concerning fitness and wellness programs in nutrition, physical activity, smoking cessation, and stress management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	544	Fitness/Wellness Management	Development of the fitness/wellness industry. Planning, organizing, promoting, and managing fitness/wellness programs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	635	Physical Activity and Aging	Examines and discusses the theoretical and applied health-related research on physical activity and aging.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	640	Analysis of Variance for Exercise and Wellness	Analyzes variance methods with an emphasis on research measures of human performance.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	641	Qualitative Research Methods	Introductory overview of qualitative research methods frequently used in education and health. Emphasizes analysis of research and practical application.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	642	Exercise Epidemiology	Physical activity, exercise, and physical fitness and the development of chronic disease.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 500 and EXW 501 with a C or greater
EXW	643	Correlation/Regression/Multivariate Statistics	Graduate-level statistics course for PhD/master's students who will be doing research in the area of exercise and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	645	Biostatistics in Physical Activity, Nutrition, and Wellness	Introduces biostatistical methods in physical activity, nutrition, and health promotion.	N	LEL	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	701	Research Methods for Community-Based Interventions	Develops skills to design and conduct community-based research interventions, identify essential elements of program fidelity, analyze quasi-experimental research.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
EXW	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
FAS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Freshman Standing; Maximum 25 hours

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FAS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	301	Introduction to Parenting	Integrated approach to understanding parenting and parent-child interactions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	332	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, and responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	361	Research Methods	Methods of social science research, including the fundamental assumptions underlying research, critique, research design, data collection, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	Pre-requisites: SOC 101 (or SOC 301 or CDE 232) and SOC 390 (or equivalent) completed with D or better or currently enrolled. Credit is allowed for only FAS 361 or SOC 391
FAS	370	Family Ethnic and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
FAS	390	Supervised Research Experience	Practical, firsthand experience within current faculty research projects in family studies or child development. Y grade only; may be repeated for total of 6 hours.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
FAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	431	Parent-Adolescent Relationships	Dynamics of the relationships between parents and adolescents. Developmental characteristics of adolescence and the corresponding adult stage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	435	Advanced Marriage and Family Relationships	Recent research, issues, and trends relating to marriage and family interaction. Influence of family composition, physical environment, family patterns, and values on family dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
FAS	440	Fundamentals of Marriage and Family Therapy	Introduces the fundamental orientations of marriage and family therapy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisite: Must be an Honors student
FAS	493	Honors Thesis		N	RSC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
FAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	497	Honors Colloquium		N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
FAS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		
FAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
FAS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	531	Family Theory Development	Historical and current approaches to theory development, evaluation, and application in family studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	539	Research Issues in Family Interaction	Critical review of current and past research in the area of family dynamics. Emphasizes interactional processes within the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	570	Introduction to Marriage and Family Therapy	Introduces major marriage and family therapy orientations. Reviews history, theory, application, and outcome research for each orientation.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	571	Assessment in Marriage and Family Therapy	Assessment and outcome evaluation of couples and families involved in marital and family therapy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	572	Advanced Techniques in Marriage and Family Therapy	In-depth review of assumptions and advanced techniques associated with contemporary marriage and family therapy approaches.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	573	Dysfunctional Marriage and Family Relationships	Critical review of current theory and empirical evidence connecting marital and family interaction patterns with aberrant behavior.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FAS	574	Family Theory for Marriage and Family Therapy	Examines the theoretical orientations within the family therapy field, including the evolution, premises, and assumptions of each.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	575	Applied Issues in Couples - Therapy	Examines issues unique to therapeutic work with couples, including lifespan transition, multicultural issues, divorce, parenting, and remarriage. Seminar. Enroll requirements: Pre-requisites: Admission into MAS-MFT program.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	576	Applied Issues in Human Development for MFT: Psychopathology	Recognition and diagnosis of maladaptive behavior according to DSM criteria across human development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	577	Applied Issues in Child and Adolescent Development for Marriage and Family Therapy	Examines developmental factors that lead to disorders in children and adolescents, with an emphasis on a systemic framework.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	578	Applied Issues in Sexuality for Marriage and Family Therapy	Examines the major methods used to assess and treat sexual issues and the treatment of sexual disorders.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	579	Applied Research in Marriage and Family Therapy	Critical examination of research concepts, quantitative and qualitative research designs, and applicability in clinical settings.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	581	Professional Issues and Ethics	Examines legal and ethical concerns of marriage and family therapists, emphasizing licensing standards and the Code of Ethics.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
FAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FAS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
FAS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
FAS	301-W	Introduction to Parenting	Integrated approach to understanding parenting and parent-child interactions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	332-W	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
FAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
FAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
FAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	332	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, and responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	370	Family Ethnic and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
FIN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-3		
FIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		
FIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		
FIN	300	Fundamentals of Finance	Theory and problems in financial management of business enterprises.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA and 2.5 ASU business GPA; ACC 241. ECN 221 and ECN 212 with a grade of C or better.
FIN	301	Fundamentals of Finance	Introduces the basic concepts, principles, and tools of financial management.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status; ACC 240, ECN 112 and QBA 221 with C or better
FIN	302	Managerial Finance	Theories and techniques used for business decisions in working capital management, capital budgeting, financial control, and long-term financing.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W. P. Carey Finance major; ACC 240/241. ECN 221 and ECN 212 with a grade of C or better.
FIN	303	Honors Finance	Covers basic principles of finance, practical tools for financial decision making, and evaluation methods employed by the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Must be an Honors student; Must have ACC 241, ECN 211 or 213, ECN 212 or 214, ECN 221 and MAT 211 or 271 with a grade of C or better.
FIN	331	Financial Markets and Institutions	Analyzes financial markets and intermediaries. Theory of financial intermediation, interest rate theory, money and capital market instruments, and government regulation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 241 and ECN 221 with a grade of C or better.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FIN	361	Advanced Managerial Finance	Builds on FIN 302. Advanced material on capital budgeting, cost of capital, CAPM, asset valuation, capital structure, and financial policy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; must have completed FIN 302 or FIN 300 with a grade of C or greater or be currently enrolled.
FIN	380	Personal Financial Management	Dynamic analysis of personal financial planning, including time value of money, stock and bond investment, and retirement and estate planning.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Non-Finance student; Must have minimum 2.0 ASU cumulative GPA and minimum 56 earned hours, or be a non-degree seeking student
FIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: Non-Finance students; Minimum cumulative GPA of 2.00; Minimum 56 hours OR Non-degree seeking student
FIN	410	Investments	Strategies and mechanics of investing in stocks, bonds, and derivatives. Topics include investment selection, portfolio management, financial markets, and institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Management student with professional or conditional status OR Finance Mgt student; FIN 300 or 301 with C or better
FIN	411	International Finance	Explores the environmental challenges facing financial managers in global financial markets and develops tools and techniques to meet such challenges.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status OR Finance Mgt OR Int' Studies student; FIN 300 or 301 with C or better; GLB 301 with C or better
FIN	412	Financial Management	In-depth extension of core finance course. Typical topics include financial planning/control, risk and valuation, capital budgeting.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status OR Finance Mgt student; FIN 300 or 301 with C or better; ACC 236 or 410 with C or better
FIN	421	Security Analysis and Portfolio Management	Security analysis theory and practice. Selection and management of financial asset portfolios. Securities markets and portfolio risk-return analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 303 or 361) with C or better
FIN	427	Derivative Financial Securities	Study of stock options, index options, convertible securities, financial futures, warrants, subscription rights, and arbitrage pricing theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; FIN 421 with C or better
FIN	431	Management of Financial Institutions	Asset/liability and capital management in financial institutions. Influence of market factors and regulatory agencies. Emphasizes commercial banks.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and 361 with C or better; Honors student in Finance: FIN 303 and FIN 331 with C or better
FIN	456	International Financial Management	Exchange rate determination, financial markets, managing multinational corporations, capital budgeting, and hedging currency risk exposure from an international perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.	G	Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and 361 with C or better; Honors student in Finance: FIN 303 and FIN 331 with C or better
FIN	461	Financial Cases and Modeling	Case-oriented capstone course in managerial finance. Contemporary issues of liquidity management, capital budgeting, capital structure, and financial strategy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.	L	Pre-requisites: W.P.Carey Finance BS student; FIN 421 with C or better
FIN	481	Honors Seminar in Finance	Honors course covering topics that include theory and applications concerning managerial finance, investments, and financial institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student with Honors status; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Finance	1-6		Pre-requisites: Must be an Honors student
FIN	493	Honors Thesis		N	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-6	L	Pre-requisites: Must be an Honors student
FIN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-6		
FIN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-7		Pre-requisites: W.P. Carey Finance students with professional status; FIN 331 and 361 with C or better; ACC 315 or 340 with C or better
FIN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEL	Y	Z1	W.P. Carey School of Business	Department of Finance	1-3		Pre-requisites: W.P. Carey Finance students with professional status
FIN	502	Managerial Finance	Develops analytical techniques and financial theories used to make optimal decisions in a corporate setting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	2-4		Pre-requisites: ACC 502 with C or better; ECN 501 with C or better
FIN	520	Financial Modeling	Demonstrates how Excel programming techniques can be used to model and manipulate financial data, as applied to equities, options on equities, and options on bonds.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	521	Investment Management	Valuation of equities and fixed income securities. Trading strategies and portfolio management. Performance evaluation. Trading mechanisms and market organization.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	525	Investment Strategies	Introduces theories and practices of the investment process. Covers the fundamental principals and applications of modern portfolio theory, risk-return relation, asset pricing models, investment performance evaluation, and stock and bond valuation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	527	Derivatives and Risk Management	Characteristics and pricing of forwards, futures, swaps, options. Applies instruments for hedging strategies, corporate risk management, and capital budgeting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater

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FIN	530	Derivatives	Covers options, forward contracts, futures contracts, and swaps. Provides a good knowledge of how these contracts work, how they are used, and how they are priced.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	531	Financial Markets and Intermediaries	Short-term and long-term fixed-income securities and their marketplaces, tools for bond portfolio and interest rate risk management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	540	Financial Markets and Instruments	Offers a comprehensive exploration of the revolutionary developments occurring in the world's financial markets.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	550	Fixed Income Securities	Describes important fixed income securities and markets, and develops tools for valuing fixed income securities and managing interest rate risk. Covers traditional bonds and term structure concepts as well as fixed income derivatives and interest rate modeling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	551	Applied Fundamental Analysis	Analysis of financial documents to determine quality of earnings. Forensic financial analysis to diagnose financial health and sustainable growth.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 and ACC 502 with a grade of C or greater or be currently enrolled
FIN	556	International Financial Management	Behavior of exchange rates, interest rates, inflation rates. Analyzes corporate exposure to exchange rate risk and hedging strategies. Multicurrency capital budgeting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater or be currently enrolled
FIN	560	International Finance and Investments	Examines the financial issues of an international investment decision. Main topics include foreign exchange market, investment alternatives in the international capital markets, and the management of foreign exchange risk.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	561	Strategic Financial Management	Capstone case-oriented course in strategic applications of corporate finance. Acquisition, allocation, and management of funds within the business enterprise.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	570	Portfolio Strategies and Hedge Funds	Introduces the principles of asset valuation from an applied perspective. Valuation of financial securities and portfolio management applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		
FIN	581	Advanced Valuation Methods	Analyzes practical aspects of valuing the enterprise using economic value added, free cash flow, and other financial techniques.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
FIN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: FIN 502 with C or better
FIN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-12		
FIN	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	781	Theory of Finance	Fundamental tools of financial economics; asset pricing, arbitrage, option pricing, capital structure, dividend policy, asymmetric information, and transaction-cost economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		

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FIN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-15		
FIN	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Finance	1.		
FIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-15		
FIN	300	Fundamentals of Finance	Theory and problems in financial management of business enterprises.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W.P. Carey BS/BA student or West Global Mgt student with Professional status
FIN	380	Personal Financial Management	Dynamic analysis of personal financial planning, including time value of money, stock and bond investment, and retirement and estate planning.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Non-Finance student; Must have minimum 2.0 ASU cumulative GPA and minimum 56 earned hours, or be a non-degree seeking student
FLA	464	Politics of Drama in 20th-Century Europe	Interdisciplinary examination of European drama before and after WWII.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FMP	201	Film: The Creative Process I	History, elements, and techniques of theatrical film: cinematography, directing, acting, scriptwriting, producing, and criticism. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	
FMP	250	Sex and Violence in Film and TV: Ethics Survey	Sex and violence portrayals in media; examines societal evolution, technological development, market imperatives, production codes, and industry realities and practices.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
FMP	300	Focus on Film	Specialized study of prominent film artists, techniques, and genres. Emphasizes the creative process.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: ENG102, 105 or 108 with C or better
FMP	318	Directing for Film	In-depth analysis of directing theory, textual analysis, visualization, shot composition and spatial connection, staging, rehearsal techniques, and camera movement.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Film and Media Production student; FMP 320 with C or better
FMP	320	Film and Media Post-Production	In-depth analysis of editing theory, storytelling, nonlinear editing techniques and equipment, basics of visual and audio effects.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Must be in Film and Media Production student; Completed FMP 300 (or THE 400) with a grade of C or better
FMP	345	Cinematography I	Cinematographer's role, photographic and visual theory, framing, shot composition, cameras and equipment, crew management, basic lighting for film and video.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
FMP	417	Business Ethics in Entertainment	Business and ethical practices of the entertainment industry; analysis of ethical decision-making techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	480	Film Production Capstone I	Preparation for final project: screenplay, budget, shooting schedule, production lists and reports for preproduction of required capstone film.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: FMP 318 with C or better; majors only
FMP	481	Film Production Capstone II	Final project shooting and postproduction: shooting, editing picture, sound, effects and music; audience screening of required capstone film.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: FMP 318 with C or better; majors only
FMP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
FMP	492	Honors Directed Study		N	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		
FMP	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be an Honors student
FMP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Must be a Film & Media Production student
FMP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Pre-requisites: Must be a Film & Media Production student

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FMP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
FMP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisite: Fine Arts Graduate student
FMS	100	Introduction to Film	Introduces the narrative structure, visual style, and cultural elements of film. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	
FMS	110	Introduction to New Media	Explores the cultural effects of new media technologies. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	
FMS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
FMS	200	Film History	Introduces the technological, aesthetic, social, and economic aspects of international film history.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	(L or HU) & H	
FMS	202	Religion and Popular Culture	Explores various intersector between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	
FMS	209	Screenwriting Fundamentals (online)	Studies the creativity and the technique of screenwriting for the conventional narrative film and for TV; student writing exercises culminate in a script for micro cinema.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: Restricted to online Film and Media Studies students only
FMS	270	Race and Gender in American Film	Explores how Hollywood shapes perceptions of race and gender in American society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Credit is allowed for only FMS 270or TCL 270
FMS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	300	Media and Cultural Studies	The history of media and its cultural impact. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	309	Intermediate Screenwriting	Utilizing the elements of storytelling, students develop and write a treatment and the first act of a screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	310	Asian Pacific American Arts and Cultures	Explores Asian Pacific American cultural expression in art, literature, film, theatre, dance, and music.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	
FMS	312	Film, Media, and Politics Today	Examines how entertainment technologies inform political innovation and campaigning.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	313	Anti-Semitism in the Media	By examination and discussion of various media, explores the phenomenon of modern anti-Semitism.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	340	Contemporary American Film and Popular Culture	Analyzes American films, television programs, and music as popular cultural documents. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	345	Asian Pacific Americans and Film	Examines representations of Asian Pacific Americans in narrative, popular, experimental, and documentary film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C & H	
FMS	350	Virtual Reality in Film and Media	Analyzes virtual reality in films, media, and fiction. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	351	Emerging Digital Media	Analyzes modern cultural and digital technologies. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L	Pre-requisites: Must have completed one of the following courses with a grade of C or greater: ENG 102, 105 or 108
FMS	352	Chicana/o Film	Explores how Chicano and Chicana filmmakers have interpreted the Chicano experience through the medium of film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	C	
FMS	370	Signs of Aliens: Semiotics of Film and Popular Culture	Introduces semiotics and cultural studies; looks at various meanings ascribed to the sign of the alien.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	
FMS	376	Virgin Mary in History, Film, and Culture	Introduces formation and development of cult of the Virgin Mary; analyzes transformations of Mariology within historical, cinematic, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only FMS or REL 376
FMS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	409	Advanced Screenwriting	Utilizing the elements of storytelling, students outline, develop, and write a feature-length screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites:ENG 102(or ENG 105/108); FMS 100; FMS 309 with grades of C or better, or currently enrolled
FMS	440	Los Angeles: Movies and Culture	Explores film treatment of the historical culture of Los Angeles. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	441	Global Cinema	Examines how film represents three important dimensions of globalization: its relationship to national culture, terrorism, and immigration. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & G	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	450	Technology, Culture, and Media	Studies the socio-political relationships among technology, culture, and media. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	460	Masculinity and Film	Examines the representation of masculinity and the male body in film. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better

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FMS	461	Film Theory and Criticism	Examines the major positions and issues in film theory from an historical perspective. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Prerequisite(s): ENG 102, 105 or 108 with C or better; FMS 100 with C or better; Credit is allowed for only FMS 461 or SLC 440
FMS	464	Latina/o Literature	Development of Latina/o literature. Study of genres and themes; attention to literary antecedents of the new U.S.-based Latina literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	(L or HU) & C	Pre-requisites: You may not enroll in FMS 464 if you have credit in TCL 464
FMS	465	Chicana/o and Latina/o History on Film	Explore history on film; the processes, developing critical perspectives about historiography, and film in relation to U.S.-Mexican borderlands.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Pre-requisites: Completed TCL 201 with a grade of D or better or currently enrolled. May not enroll in FMS 465, if received credit for TCL 465
FMS	466	Constructing the Border on Film	Explores the U.S.-Mexico border on film, examining how border images have been constructed and shaped over time.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	C	
FMS	468	Crime and Violence in American Film	Addresses three primary aspects of crime and violence in film: representation, societal attitudes, effects on audience.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	470	Race, Sex, and Identity Online	Relying on critical and cultural theory, addresses the relationship between race, sex, and social identity online.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only FMS or TCL 470
FMS	471	Latinos In Hollywood	Studies representations of Latinos in film; stereotyping, politics of metaphor, allegory, star discourse, self-representation, resistance, and independent film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	480	Globalization, Technology, and Culture	Studies the socio-political relationship between media and the evolution of globalization. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & G	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	481	Entertainment Technologies	Applies academic and industry knowledge to simulate and to solve "real world" entertainment industry problems and needs.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	482	Entertainment Industries	Uses historical methodologies to critique emerging trends in the business of new media storytelling.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	483	Techno-Entertainment Convergences	Uses historical and scientific methods to forecast future technological developments and use in the entertainment industry.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
FMS	486	Holocaust on Film	Examines how motion pictures recorded actual holocaust events and have depicted them since World War II.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better. Credit is allowed for only FMS 486 or REL 486
FMS	487	Religion and Film	Uses a transdisciplinary approach to explore cinematic representations of religious institutions, belief, and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	490	Capstone Seminar	Capstone seminar.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
FMS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6	L	Pre-requisites: Must be an Honors student
FMS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
FMS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
FMS	502	Hollywood Film Historiography (Online)	This course is offered online only. Explores historiographic and critical scholarship on Hollywood as an industrial, cultural, and aesthetic enterprise.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	507	Crime and Violence in American Film (Online)	This course is available online only. Focuses on historiographic and critical scholarship on three aspects of crime and violence in American film: (1) regulation and censorship; (2) representation and society; and (3) theories about the effects on audiences of viewing crime and violence in films.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	509	Race, Sex, and Identity Online (Online)	This course is available online only. Investigates scholarly methods and studies focused on the intersection of race, gender, and sexuality online.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	511	Fundamentals of Cinema & Television Narrative Online	Studies the creativity and the technique of screenwriting for the conventional narrative film and for television. Student writing exercises culminate in a script for micro-cinema. Seminar. Pre-requisite: online student in MAS American Media and Popular Culture	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	512	Intermediate Cinema and Television Narrative (online)	Focuses on the feature-length screenplay; students complete the first act and treatment of an original feature.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FMS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FRE	101	Elementary French	Intensive aural/oral drill in class and lab; basic grammar supplemented by simple prose readings. Credit is allowed for only FRE 101 or 111	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students may not sign up for FRE 101 if they have received a C or better in FRE101,102,201,202,205,311,312,321,322,411,412
FRE	102	Elementary French	See FRE 101. Credit is allowed for only FRE 102 or 111.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisite: FRE 101; May not sign up for FRE 102 if received a C or better in FRE 111,201,202,205,311,312,321,322,411,or 412
FRE	107	French for International Professions I	Accelerated alternative to FRE 101 and 102 or FRE 111. Functional approach. Emphasizes communicative competence for international professions. Credit is allowed for only FRE 107 or 111. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.		
FRE	111	Fundamentals of French	Primarily for students with two years of high school French who need review to enter second year study. Credit is allowed for only FRE 111 or 101 or 102 or 107. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students may not sign up for FRE 111 if they have received a C or better in FRE 101,102,201,202,205,311,312,321,322,411,412
FRE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
FRE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	201	Intermediate French I	Grammar review, with emphasis on development of skills of speaking, reading, writing, and listening comprehension. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Student may not enroll in FRE 201 if received a C or better in: FRE202,205,311,312,321,322,411,412
FRE	202	Intermediate French II	Continuation of grammar review with emphasis on development of skills in speaking, reading, writing, and listening comprehension. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Students may not sign up for FRE 202 if they have received a C or better in FRE205,311,312,321,322,411,412
FRE	205	Readings in French Literature	Designed to teach reading with facility and comprehension. Vocabulary building and textual analysis of literary genres are major elements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisite: FRE 202; Students who have received a C or better in FRE 321 or 322, may not enroll in FRE 205
FRE	207	French for Business	Alternative to FRE 202. Functional approach. Emphasizes communicative competence for international professions. Not open to students with credit in FRE 202. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.	G	
FRE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	311	French Conversation	Further practice in speaking French, emphasizing current usage and promoting facility in the expression of ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not enroll in FRE 311, if they have received a C or better in FRE 411.
FRE	312	French Composition	Further practice in writing French, emphasizing current usage and promoting facility in the expression of ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not enroll in FRE 312, if they have received a C or better in FRE 412
FRE	315	French Phonetics	Practice and theory of French pronunciation. Emphasizes standard French, although an overview of regional varieties is offered.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 311 with a grade of D or better, or currently enrolled
FRE	319	Business French	Introduces the structure, vocabulary, and practices of the French business world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 312 with a grade of D or better or currently enrolled
FRE	321	French Literature	Representative masterpieces and significant movements of French literature of the Middle Ages through the 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & H	Pre-requisites:FRE 205, 312 with a grade of D or better or currently enrolled
FRE	322	French Literature	Literature of the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:Completed FRE 205 & 312 with a grade of D or greater, or be currently enrolled
FRE	325	Introduction to French Film	Studies French artistic contribution from 1895 to present, with emphasis on recent films starting with the New Wave.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	411	Advanced Spoken French	Improvement of spoken French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 311 with a grade of D or currently enrolled & 6 hours of 300-level French
FRE	412	Advanced Written French	Improvement of composition skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 312; 6 hours of 300-level French
FRE	415	French Civilization I	Political, intellectual, social, economic, and artistic development of France from its origins to the end of the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:6 hours of upper-division French
FRE	416	French Civilization II	Political, intellectual, social, economic, and artistic development of France from the 18th century to present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	pre-requisites:6 hours of upper-division French
FRE	421	Structure of French	Phonology, morphology, syntax, semantics, and varieties of French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 311 & 312 with a grade of D or better, or currently enrolled
FRE	422	Applied French Linguistics	Applies linguistic theory and second-language acquisition theory to teaching of French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ASB 480, ENG 213 or SLC 400
FRE	423	French Syntax	Analyzes French syntactic structure by contemporary theoretical models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ASB 480, or ENG 213, or SLC 400 with a D or better or currently enrolled
FRE	432	Gay Identities in Modern French Literature	Examines the representation of homosexuals as well as the emergence of homosexuality as a theme in modern French literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses

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FRE	441	French Literature of the 17th Century	From 1600 to 1660.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	442	French Literature of the 17th Century	From 1660 to 1700.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	445	French Literature of the 18th Century	Contributions of the philosophers and the development of the novel and drama.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	451	French Poetry of the 19th Century	From Romanticism to Parnassian poetry to Symbolism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	452	French Novel of the 19th Century	From Constant, Hugo, Balzac, Stendhal, and Sand to Flaubert and Zola, with emphasis on major literary movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	453	Theater of the 19th Century	From Romantic drama to the Symbolist Theater. Representative plays of Hugo, Musset, Vigny, Dumas, Becque, Rostand, Feydeau, and Mirbeau.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	461	Modern Narrative	Representative authors from Gide to the new Nouveau Roman.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	462	Modern Poetry	Representative authors from Mallarme to Bonnefoy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	471	The Literature of Francophone Africa and the Caribbean	Selected prose, poetry, and drama of black authors from Africa and the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	472	Franco-Canadian Civilization	Study of the civilization of Quebec in particular through its history, language, literature, music, and customs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:9 hours of 300-level French courses with a grade of D or better
FRE	480	Translation Theory and Practice	Theoretical and practical approaches to the fundamentals of meaning-based translation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 412 with a grade of D or currently enrolled
FRE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	485	Literary Translation	Theory and practice of literary translation with emphasis on application through individual translation project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 480 with a grade of D, or currently enrolled
FRE	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
FRE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
FRE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
FRE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
FRE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	510	Introduction to Textual Analysis	Introduces various oral and written techniques aimed at explicating literary texts. Required of all French graduate students focusing on literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	521	History of the French Language	Principal phonological, morphological, and semantic developments of French from Latin to present, with emphasis on Old and Middle French. Some familiarity with Latin is recommended.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	531	Medieval French Literature	Readings in the epics, early drama, Roman courtois, and other representative literary genres of the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	535	Identity, Gender, and Society in Early Modern French Literature	Readings in French Renaissance literature with special focus on Rabelais, Montaigne, Marguerite de Navarre.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	585	Literary Translation	Theory and practice of literary translation with emphasis on application through individual translation project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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FRE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
FRE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	790	Reading And Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
FSA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	502	Managing Change in the Fire Service	Dynamics of organizational change and the effect change has on the delivery of fire services to the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	503	Fire Service and the Community	Theoretical concepts of public service to build an understanding of how the fire service fits within the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	510	Fire Department Budgeting and Finance	Functions of budgeting and finance in fire departments within the context of the public sector.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	522	Leadership in the Fire Service	Leadership theories analyzed in a variety of contexts within public and private organizations, then applied to the leadership challenges in the fire service.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	530	Public Policy in the Fire Service	Public policy and the fire services' role in the making of public policy in the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	540	Applied Research Methods in the Fire Service	Research methods applicable to problems that arise in the fire service, including assessments of programs and customer service research.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	550	Fire Service Program Management	Functions of developing and managing fire service programs. Designed for advanced students of fire service administration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	551	Fire Prevention and Public Fire Education	Managing fire prevention organizations and administering fire prevention programs in a contemporary society.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	552	Emergency Medical Services Administration	Complex issues of administering an Emergency Medical Services (EMS) division in a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	553	Special Operations in the Fire Service	Focuses on the variety of special emergency services operations provided by contemporary fire departments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	554	Emergency Fire Operations Administration	Delivery of emergency services to a community by a contemporary fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
FSA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		

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FSA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSE	105	College Adjustment and Survival	Explores career goals and majors. Emphasizes organization and development of study skills, including time management, stress management, and use of the library.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		Pre-requisites: Freshman or Sophomore in the Ira A. Fulton School of Engineering
FSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	200	Elements of Engineering Design	Advanced version of introduction to engineering for students who have not taken an introduction to engineering course. Credit is allowed for only FSE 200 or various program introduction to engineering courses.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisites: A grade of C or better in PHY 121 or currently enrolled AND a grade of C or better in MAT 265 or 270.
FSE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	301	Entrepreneurship for Engineers	Overview of entrepreneurship, with emphasis on principles suitable for undergraduate engineering students.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisites: School of Engineering BS or BSE student; Minimum Junior standing
FSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		Pre-requisite: Engineering or Construction BS or BSE student
FSE	399	Cooperative Work Experience	Work periods with industrial firms or government agencies alternated with full-time course work. Not open to students from other colleges.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	400	Creating and Launching a Technology Venture	Focuses on creative and logical processes involved in developing a business idea and investigating its market feasibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	401	Intellectual Property for Technology Ventures	Provides basic understanding of legal issues likely to be encountered in a technology venture; practical approaches and solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	402	Operating a Technology Venture	Managing and leading technology ventures. Principles of organizing, planning, controlling, and leading.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	403	Entrepreneurship Practicum	Places students pursuing a Certificate in Technology Entrepreneurship with a practicing entrepreneur to learn about venture development.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6	L	Pre-requisites: Must be an Honors student
FSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	497	Honors Colloquium		Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-7		
FSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		
FSE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	501	Technology Entrepreneurship	Fundamental principles and concepts of technology entrepreneurship.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
FSE	502	Strategic Enterprise Innovation	Strategies, techniques, and practices of process, product, and management innovation across the enterprise.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	503	Collaborative Innovation Management	Techniques and practices of collaboration innovation, including an indepth look at managing outsourcing relationships and "wikinomics."	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	504	Corporate Venturing and Intrapreneurship	Explores how companies can create intrapreneurial cultures that lead to greater levels of corporate venturing and long-term competitiveness.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FSE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	590	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	594	Conf and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		Pre-requisite: School of Engineering Graduate student
FSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	690	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FSE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	790	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-15		
FSE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-15		
FSM	304	Fire Personnel Management	Promotion, personnel development, career and incentive systems, validation of physical requirements, managerial and supervisory procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	305	Quality Emergency Services	Covers quality issues relating to services delivered by progressive fire departments. Covers management of personnel and resources during organizational change.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	306	Fire Prevention Organization and Management	Examines and evaluates the techniques, procedures, programs, and agencies involved in preventing fires.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	307	Fire Department Safety Organization and Management	Focuses on the management of fire department safety programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	2.		
FSM	308	Fire Department Budgeting	Examines the role of fire department budgets and their relationship to other levels of government as a planning tool.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	309	Emergency Medical Service Organization and Management	Focuses on the administration and management of emergency medical services delivered by a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	363	Computer Applications in Emergency Management	Explores specific computer programs that are currently in use for contingency planning, tracking chemical inventories, and response resources.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
FSM	400	Human Behavior and the Fire Threat	Proper ways of conducting post-fire interviews; emphasizes the psychological effects of communications during emergencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	401	Labor Relations in the Fire Service	Examines the relationships between management and unions using the Relations by Objectives model.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	404	Program Management and Accreditation	Examines the relationships between management and unions using the Relations by Objectives model.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	405	Fire Service Leadership	Focuses on developing personal and organizational leadership qualities required to be successful in the fire service.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	421	Political and Legal Consideration in Fire Science	Study of legal and political considerations that affect the decision making of fire service managers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	425	Fire Service Administration	Presents modern management and planning techniques that apply to organizing a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	460	Incident Management Systems and Emergency Operations Center	Covers IMS, terminology, players, and management philosophy. EOC setup, activation, operation, and termination. EOC funding and politics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	493	Honors Thesis	Capstone applied project. Applies knowledge learned from FSM course work to solve a practical fire service problem.	N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-6	L	Pre-requisites: Must be an Honors student
FSM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
FSM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
GB	305	Business Law		N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	3.		

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GB	305	Business Law		N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	3.		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	SB & G	
GCU	141	Introduction to Economic Geography	Production, distribution, and consumption of various types of commodities of the world and relationships to the activities of humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GCU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	200	Orientation to Geography	Basic introduction to the Department of Geography faculty, undergraduate graduation requirements, and possible jobs and skills in geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(HU or SB) & G	
GCU	253	Introduction to Cultural and Historical Geography	Cultural patterns, including such phenomena as language, religion, and various aspects of material culture. Origins and diffusion and division of the world into cultural areas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	322	Geography of U.S. and Canada	Spatial distribution of relevant physical, economic, and cultural phenomena in the United States and Canada.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	323	Geography of Latin America	Spatial distribution of relevant physical, economic, and cultural phenomena in South, Middle, and Caribbean America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	325	Geography of Europe	Broad and systematic overview of Europe, emphasizing physical, economic, and cultural phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	326	Geography of Asia	Spatial distribution of relevant physical, economic, and cultural phenomena in Asia, excluding the former Soviet Union.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	327	Geography of Africa	Spatial distribution of relevant physical, economic, and cultural phenomena in Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	328	Geography of Middle East and North Africa	Spatial distribution of relevant physical, economic, and cultural phenomena in the Middle East and North Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	332	Geography of Australia and Oceania	Spatial distribution of relevant physical, economic, and cultural phenomena in Australia, New Zealand, and Pacific Islands.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	344	Geography of Hispanic Americans	Examines the homelands, migrations, settlements, landscapes, roles, and selected cultural traditions of Hispanic Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	350	The Geography of World Crises	Contemporary world crises viewed from a perspective of geographic concepts and techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	351	Population Geography	Demographic patterns; spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	352	Political Geography	Relationship between the sociophysical environment and the state.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	357	Social Geography	Environmental perception of individuals and groups. Stresses the spatial aspect of social and physical environments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	359	Cities of the World I	Historical evolution of urban patterns and structures in the Middle East, India, Southeast Asia, China, Japan, and Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G & H	

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GCU	360	Cities of the World II	Historical evolution of urban patterns and structures in Latin America, North America, Sub-Saharan Africa, and Australasia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	361	Urban Geography	External spatial relations of cities, internal city structure, and spatial aspects of urban problems in various parts of the world, particularly in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	364	Energy in the Global Arena	Production, transportation, and consumption of energy, emphasizing the electric power industry and its environmental problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	414	Teaching Geography Standards	Introduces Arizona Geography Standards for K-12 educators, emphasizing exciting curricula and illustrated with best practices by master teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	421	Geography of Arizona and Southwestern United States	Geography of the Southwest with an emphasis on Arizona. Divided into physical geography, history, people, and economy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	423	Geography of South America		N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	424	Geography of Mexico and Middle America	Central America and Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	425	Geography of the Mexican American Borderland	Geography of a binational and bicultural region. Examines settlement, boundary issues, ethnic subregions, population change, industrial development, and urban growth. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(L or SB) & G	
GCU	426	Geography of Russia and Surroundings	Examines the geography of Russia and other post-Soviet states.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	432	Geography of China	Examines the physical, economic, cultural, social, demographic, agricultural, political, historical, and environmental aspects of the geography of China.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	433	Geography of Southeast Asia	Examines the biophysical and social features of Southeast Asian nations and peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	441	Economic Geography	Spatial distribution of primary, secondary, and tertiary economic and production activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	442	Geographical Analysis of Transportation	Networks, modes, economics, and flows at the urban, national, and international scales. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	444	Geographic Studies in Urban Transportation	Current urban transportation issues in metropolitan Phoenix. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	453	Recreational Geography	Examines problems surrounding the organization and use of space for recreation. Introduces geographic field survey methods of data collection and analysis.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	455	Historical Geography of U.S. and Canada	Geographical perspective on the evolution of the United States and Canada from pre-Columbian times to early 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & H	
GCU	474	Public Land Policy	Geographic aspects of federal public lands, policy, management, and issues. Emphasizes western wilderness and resource development problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GCU	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
GCU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		

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GCU	495	Quantitative Methods in Geography	Statistical techniques applied to the analysis of spatial distributions and relationships. Introduces models and theory in geography. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	Pre-requisites: MAT 119, 170, 210 or 270
GCU	496	Geographic Research Methods	Scientific techniques used in geographic research. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	Pre-requisites: Must have completed the following courses with a grade of C or greater or be currently enrolled: GPH 371 and GPH 491 and GCU 495
GCU	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GCU	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
GCU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GCU	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	514	Human Dimensions of Sustainability	Concepts and definitions of the human dimensions of sustainability; the role of attitudes and values in shaping sustainability goals, practices, and programs; the diversity of values and socio-cultural contexts relating to sustainability; bottom-up and top-down sustainable policy development, social data collection methodologies. Seminar.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	515	Human Migration	Economic, political, social, and geographic factors underlying population movements. Migration selectivity, streams and counter-streams, labor migration, and migration decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	526	Spatial Land-Use Analysis	Determination, classification, and analysis of spatial variations in land-use patterns. Examines the processes affecting land-use change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	529	Contemporary Geographic Thought	Comparative evaluation of current philosophy concerning the nature and trends of geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	585	Advanced Research Methods in Geography	Specialized research techniques and methodologies in economic, political, or cultural geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GCU	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	596	History of Geographic Thought	Historical development of geographic thought from pre-Greek days to the early 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	671	Introduction to Geographic Teaching	Intensive course in geographic education, scientific method in research on geographic education, research trends, resources for teaching, best practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	672	Physical Geography for Teachers	Transfer of matter and energy exhibited in the Earth's climate, hydrology, soils, biogeography, and landforms; case studies; virtual field trips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	673	Human Geography for Teachers	Analyzes cultural, economic, urban, historical, transportation, population, political, and development geography; case studies; virtual field trips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	674	Geographic Techniques for Teachers	Introduces geographic techniques, including GPS, GIS, remote sensing, cartography, qualitative, and field methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	675	World Geography for Teachers	Systematic overview of geographic knowledge about different world regions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	676	North American Geography for Teachers	Systematic overview of geographic knowledge about different North American regions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	677	Geography Across the Curriculum	Intensive course on intergrating reading, writing, and mathematics standards with geography content; selected case studies; best practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GCU	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GCU	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SB & G	
GCU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	253	Introduction to Cultural and Historical Geography	Cultural patterns, including such phenomena as language, religion, and various aspects of material culture. Origins and diffusion and division of the world into cultural areas.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	351	Population Geography	Demographic patterns; spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: must have completed MAT 117, or 119, or 142, or 170, or 210, or be currently enrolled in one of these
GCU	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	357	Social Geography	Environmental perception of individuals and groups. Stresses the spatial aspect of social and physical environments.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
GCU	361	Urban Geography	External spatial relations of cities, internal city structure, and spatial aspects of urban problems in various parts of the world, particularly in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
GCU	373	Introduction to Geographic Information Science	Introduces theoretical and computer-based aspects of Geographic Information Systems, involving data analysis and map generation. fee	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SG	Pre-requisite: PSY 230 or SBS 304
GCU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GCU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
GCU	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
GCU	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SB & G	
GER	101	Elementary German	Reading, writing, speaking, and understanding of basic German, with emphasis on pronunciation and grammar. Credit is allowed for only GER 101 or 111. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	102	Elementary German	See GER 101. Credit is allowed for only GER 102 or 111. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	111	Fundamentals of German	Primarily for students with two years of high school German who need review to enter second-year study. Credit is allowed for only GER 111 or both GER 101 and 102. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
GER	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	201	Intermediate German	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
GER	202	Intermediate German	See GER 201. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
GER	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	311	German Conversation	Expansion of idiom through oral practice dealing with contemporary articles, essays, and stories. 3 semester hours limit for majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	312	German Conversation	See GER 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	313	German Composition	Intensive practice in writing, emphasizing style and grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	319	Business Correspondence and Communication	Organization and presentation of clear, effective business communications; vocabulary applicable to modern business usage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	411	Advanced Grammar and Conversation	Improvement of diction and idiom through intensive oral review.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	412	Advanced Grammar and Composition	Improvement of writing ability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:GER 313 with a grade of D or better or currently enrolled
GER	415	German Civilization	Aspects of political, social, and cultural life of the German-speaking world from the beginning through 1600.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisite: A 300-level German course
GER	416	German Civilization	From 1600 through 1945.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisite: A 300-level German course
GER	421	German Literature	From the beginning to Classicism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: 6 hours of 300-level German courses
GER	422	German Literature	From Romanticism to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: 6 hours of 300-level German courses
GER	453	German Literary Masterpieces on Film	Film and literature in their correlation to each other and to cultural, political, and social trends in German-speaking countries. Special arrangements for graduate students and those without a knowledge of German.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	

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GER	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
GER	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
GER	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
GER	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
GER	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	521	History of German Language	Linguistic development of German from the earliest records to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	523	German Drama	Drama of the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	527	The Novelle	Special studies in the German short story.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
GER	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GIT	110	Technical Graphics	Representation of 2-D geometry in orthographic, axonometric and oblique projection; detail, assembly, sectional, and auxiliary views; ANSI-standard lettering, size, and position symbols.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	135	Graphic Communications	Introduces the technologies involved in the design, image generation, transmission, and industrial production of multiple images for consumer utilization.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		

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GIT	210	Creative Thinking and Design Visualization	Fundamental methods, concepts, and techniques of creative thinking, design visualization, and problem solving. Also includes communication, cultural, and societal influences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	212	Computer-Aided Design and Drafting (CADD)	CADD for product design, representation, and documentation; includes projection theory, descriptive geometry, graphics analysis, drafting standards, and precision dimensioning techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	CS	
GIT	215	Introduction to Graphics Programming	Introduces analyzing, planning, and executing graphic programs using industry-standard programming tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	230	Digital Illustration in Publishing	Raster and vector illustration in publishing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	237	Web Content Design	Introduces design principles for visual content on the World Wide Web; raster, vector, fonts, portable documents, color palettes, file formats.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	301	Web Site Development for Nonmajors	Focuses on the basic skills necessary to successfully design or maintain a Web site; geared toward non-GIT majors.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	303	Digital Publishing	Introduces software and hardware used for digital publishing and infographics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	312	3-D Computer Graphics Modeling and Representation	3-D solid modeling applications: concepts, techniques, data structures, modeling strategies, assemblies, geometric representation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	CS	
GIT	313	Technical Illustration and Photorealistic Rendering	Computer-generated graphics for technical illustration and design presentation: axonometric and perspective drawing; shading, shadowing, materials and textures; photorealistic rendering for PostScript output.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	314	Multimedia Design, Planning and Storyboards	Creative and conceptual process of content selection, planning, designing, flowcharting, storyboarding, proposing, configuring, prototyping, and presenting multimedia projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	333	Printing Technology	Theory and application of sheet and web press technology for offset-lithography, flexography, screen process, and digital printing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	334	Image Capture and Manipulation	Theory and application of image capture techniques used for all copy formats and conversion processes required for reproduction or dissemination.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	335	Computer Systems Technology	Surveys computer-based technology covering hardware, software, storage, networking, Internet, telecommunications, and information systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	337	Web Content Design	Introduces design principles for visual content on the World Wide Web; raster, vector, fonts, portable documents, color palettes, file formats.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	352	Technical Presentations	Technologies for planning, creating, and delivering individual and group presentations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	384	Commercial Digital Photography	Digital image, conversion, and output in a commercial studio emphasizing publishing workflow.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	411	Computer Animation	2-D and 3-D computer animation methods: project planning, scripting, storyboards, advanced modeling, lighting, materials mapping, and motion.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	412	Multimedia Authoring, Scripting and Production	Production of multimedia projects using industry-standard authoring applications: project management, client considerations, and project documentation; user interface design, interactivity, media, and databases.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	413	Professional Portfolio Design and Presentation	Digital media portfolio design and production: planning, audience analysis, media selection, authoring, media formats, production, copyright considerations, marketing, and delivery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	414	Web Site Design and Internet/Web Technologies	Web site design, authoring, standards, protocols, tools, and development techniques for commercial client-sided Web-based graphic information systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	415	Computer Graphics: Business Planning and Management	Implementation planning: feasibility and application studies; needs assessment and operational analysis techniques; organization, managerial, and technology considerations; business plan development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	417	Advanced Internet Programming	Uses industry-standard programming languages and techniques to create interactive graphic information Web sites and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	432	Graphic Industry Business Practices	Business practices related to press/prepress/Web industries; trade customs, cost analysis, marketing and management approaches.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	435	Web Management and E-Commerce	Internet Web site management, security, online databases, and new e-commerce business models.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GIT	436	Gravure Technology	In-depth study of the market profile and production sequences related to the gravure method of printing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	437	Color Reproduction Systems	Scientific analysis for the engineering of color reproduction systems and color models used in the graphics industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	441	Graphic Information Systems	Graphic information systems common to the workplace: graphic user interfaces for online databases, geographic, industrial, architectural, and management applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	450	Digital Workflow in Graphic Industries	Analyzes digital production systems for input, assembly, and output of graphic information to print and Web, including networking and job tracking.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
GIT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		
GIT	537	Current Issues in Quality Assurance	Directed group study of selected issues relating to quality assurance in the printing, publishing, and information industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	538	Personnel Development for the Graphics Industry	Employee training and development specific to production and management in the graphics industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	540	Cross-Media Design Solutions	Examines universal design theory, creative problem solving, and case study applications for print and new media products of the graphics industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	541	Graphic Information Systems	Graphic information systems common to the workplace; graphic user interfaces for online databases, geographic, industrial, architectural, and management applications.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	542	Information Design and Usability	A hybrid of design and technology solutions focusing on how information is organized graphically to communicate, and how usability engineering is applied to human factors.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
GIT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GLB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	301	Business in the Global Environment	Discusses multinational corporate strategy, structure, operations, and the social and economic factors affecting global business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.	G	Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status.
GLB	302	Culture and Diversity Management	Develops an understanding of culture (individual, organizational, national, subcultural, transnational, and global) and change and interaction applied to management decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3-4		Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status
GLB	303	Relationship Management	Overviews types of relationships found in organizations, then trains students in the interpersonal skills necessary to effectively manage those relationships.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status
GLB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	401	Global Business Integration	Provides an integrative framework for global corporate strategic analysis and opportunities for integrated decision making in actual and simulated businesses.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: Global Mgt student with professional status; Minimum 87 hours; OPM 301 and (FIN 300 or 301) with C or better; MKT 300 or 301 with C or better; GLB 303, HRM 410 or MGT 301 with C or better
GLB	411	Global Competitiveness	Discusses factors contributing to international competitive success of nation-states, national industries, and specific firms. Includes detailed analysis of actual firms.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.		Pre-requisites: School of Global Management and Leadership International Studies student with Professional or Conditional status; GLB 301 with C or better
GLB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
GLB	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1-6		
GLB	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
GLB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		Pre-requisite: School of Global Management and Leadership International Studies student with Professional or Conditional status

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GLG	101	Introduction to Geology I (Physical)	Basic principles of geology, geochemistry, and geophysics. Rocks, minerals, weathering, earthquakes, mountain building, volcanoes, water, and glaciers. Students must complete both GLG 101 and GLG 103 to receive an SQ (general studies).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ & G	
GLG	102	Introduction to Geology II (Historical)	Basic principles of applied geology and the use of these principles in the interpretation of geologic history. fee. Both GLG 102 and 104 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SG & H	
GLG	103	Introduction to Geology I-Laboratory	3 hours lab, some field trips. Fee. Both GLG 101 and 103 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	
GLG	104	Introduction to Geology II-Laboratory	Lab techniques involving map interpretation, cross sections, and fossils. Both GLG 102 and 104 must be taken to secure SG general Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SG	
GLG	105	Introduction to Planetary Science	Solar system objects and their geologic evolution, surfaces, interiors, and atmospheres; weekly lab for data analysis and experiments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	4.	SG	
GLG	110	Geologic Disasters and the Environment	Geological studies as they apply to interactions between humans and Earth. Includes geological processes and hazards, resources, and global change. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SG & G	
GLG	111	Geologic Disasters Laboratory	Basic geological processes and concepts. Emphasizes geology-related environmental problems concerning Arizona. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SG	
GLG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GLG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	300	Geology of Arizona	Basic and historical geology, fossils, mining, energy resources, environmental problems, landscape development, and meteorites, cast in examples from Arizona. Not open to Geology majors with credit in GLG 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	304	Geology of the Grand Canyon	Reviews the discovery, history, origin, and geology of the Grand Canyon of the Colorado River in Arizona. 6-day field trip down the river (first 6 days after commencement in May) required at student's expense. Requires field research and term paper on trip.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2.		
GLG	310	Structural Geology	Geologic structures and the mechanical processes involved in their formation. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: Must have completed GLG 101 AND either MAT 270 or MAT 290 with a grade of D or greater
GLG	321	Mineralogy	Crystal chemistry, crystallography, mineral identification, origin and occurrence of minerals, systematic mineralogy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3-4		Pre-requisites: CHM 113 and (MAT 270 or MAT 290); Pre/Co-requisite: CHM 116
GLG	325	Oceanography	Introduces marine geology, chemistry, and physical and biological oceanography. Methods of oceanic exploration, environmental and social aspects of oceans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: CHM 101 or CHM 113 with C or better; BIO 100, BIO 182 or GLG 101 with C or better; Credit is allowed for only BIO or GLG 325
GLG	362	Geomorphology	Land forms and processes that create and modify them. Lab and field study of physiographic features.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	400	Geology Colloquium	Presentation of recent research by faculty and guests. Written assignments required. 1 semester hour required for Geological Sciences majors; may be repeated for a total of 2 semester hours.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in geological sciences. Requires weekly reflective reading and writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	C	
GLG	404	Fundamentals of Planetary Geology	Surveys planetary topics, including impacts, tectonics, and volcanism on planetary objects, and use of spacecraft data, including geological mapping.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	405	Geology of the Moon	Current theories of the origin and evolution of the moon through photogeological analyses and consideration of geochemical and geophysical constraints. Possible field trips to examine Arizona geology. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	406	Geology of Mars	Geological evolution of Mars through analyses of spacecraft data, theoretical modeling, and study of terrestrial analogs; emphasizes current work. Possible field trips to examine Arizona geology. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	410	Computers in Geology	Geological computer skills including data processing, visualization, presentation, numerical analysis, software and hardware applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	CS	
GLG	412	Geotectonics	Earthquakes, Earth's interior, formation of oceanic and continental crust, and plate tectonics. Emphasizes current work.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		

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GLG	416	Field Geophysics	Methods of applied geophysical exploration; seismic refraction, gravity, electrical resistivity, geomagnetics. Includes survey planning, data acquisition, processing, analysis, and interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	418	Geophysics	Solid earth geophysics; geomagnetism, gravity, seismology, heat flow. Emphasizes crust and upper mantle.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	419	Geodynamics	Emphasizes application of continuum principles to geological problems, including lithospheric stresses, heat transfer, fluid mechanics, and rock rheology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	420	Volcanology	Distribution of past and present volcanism, types of volcanic activity, mechanism of eruption, form and structure of volcanoes, and geochemistry of volcanic activity. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	424	Petrology	Origin of igneous and metamorphic rocks. Optical mineralogy, hand specimen identification, and thin-section analysis. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	430	Paleontology	Introduces concepts and analytical techniques in biogeology, paleobiology, paleoecology, and paleoenvironmental reconstruction from the fossil record. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	435	Sedimentology	Origin, transport, deposition, and diagenesis of sediments and sedimentary rocks. Physical analysis, hand specimen examination, and interpretation of rocks and sediments. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: Must have completed GLG 102 and GLG 321 with a grade of C or greater
GLG	441	Ore Deposits	Origin, occurrence, structure, and mineralogy of ore deposits. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	451	Field Geology I	Geological mapping techniques using topographic maps and aerial photos. Intensive field-based instruction. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	L	Pre-requisites: GLG 310 with C or better; Pre/Co-requisite: GLG 321
GLG	452	Field Geology II	Continuation of GLG 451. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	L	Pre-requisites: GLG 451 and GLG 321 with C or better; MAT 270 or MAT 290 with C or better
GLG	455	Advanced Field Geology	Geologic mapping in igneous, sedimentary, and metamorphic terrains of the Basin and Range province of Arizona. May be repeated for credit. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3-4		
GLG	456	Cordilleran Regional Geology	Systematic coverage through space and time of the geological development of western North America, emphasizing the western United States. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	461	Geomicrobiology	Past and present interactions among microbial life, geological materials, and biogeochemical cycles involving carbon, sulfur, phosphate, nitrogen, and minerals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	470	Hydrogeology	Geology of groundwater occurrence, aquifer and well hydraulics, water chemistry and quality, contaminant transport, remediation. Emphasizes quantitative methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	481	Geochemistry	Origin and distribution of the chemical elements. Geochemical cycles operating in the Earth's atmosphere, hydrosphere, and lithosphere.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	485	Meteorites and Cosmochemistry	Chemistry of meteorites and their relationship to the origin of the Earth, solar system, and universe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	490	Topics in Geology	Special topics in a range of fields in geology. Fee.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
GLG	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
GLG	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6	L	Pre-requisites: Must be an Honors student
GLG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	495	Undergraduate Thesis	Guided research culminating in the completion and presentation of an undergraduate thesis based on supervised research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
GLG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-7		
GLG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
GLG	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	501	Geology of Arizona	Basic and historical geology, fossils, mining, energy resources, environmental problems, landscape development, and meteorites, cast in examples from Arizona. Research paper required.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		

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GLG	504	Geology of the Grand Canyon	Reviews the discovery, history, origin, and geology of the Grand Canyon of the Colorado River in Arizona. 6-day field trip down the river (first 6 days after commencement in May) required at student's expense. Requires field research and term paper on trip.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2.		
GLG	510	Advanced Structural Geology	Mechanics of rock deformation, emphasizing relationship among field observation, theory, and experiment. Stress, strain, simple constitutive relationships, failure criteria, and the basis of continuum methods. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	520	Advanced Physical Volcanology	Selected volcanologic topics, including explosive eruption processes, lava flow mechanics, and intrusive mechanisms. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2-3		
GLG	547	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		You may not enroll in GLG 547 if you have credit in BIO 515, or PAF 547, or SOS 516
GLG	581	Isotope Geochemistry	Geochemistry and cosmochemistry of stable and radioactive isotopes; geochronology; isotope equilibria.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	582	Physical Geochemistry	Applies thermodynamic and kinetic principles to geochemical processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		

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GLG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
GLG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
GLG	101	Introduction to Geology I (Physical)	Basic principles of geology, geochemistry, and geophysics. Rocks, minerals, weathering, earthquakes, mountain building, volcanoes, water, and glaciers. Students must complete both GLG 101 and GLG 103 to receive an SQ (general studies).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ & G	
GLG	103	Introduction to Geology I-Laboratory	3 hours lab, some field trips. Fee. Both GLG 101 and 103 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	
GLG	110	Geologic Disasters and the Environment	Geological studies as they apply to interactions between humans and Earth. Includes geological processes and hazards, resources, and global change. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SG & G	
GLG	111-W	Geologic Disasters/Environ Lab	Basic geological processes and concepts. Emphasizes geology-related environmental problems concerning Arizona. Case histories and field studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SG	
GPH	111	Introduction to Physical Geography	Spatial and functional relationships among climates, landforms, soils, water, and plants. Credit is allowed for only GPH 111 or 411. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	SQ	
GPH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GPH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	200	Orientation to Geography	Basic introduction to the Department of Geography faculty, undergraduate graduation requirements, and possible jobs and skills in geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	210	Society and Environment	Examines the interaction among social processes, key environmental issues, and nature's role as a resource at global and regional scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	211	Landform Processes	Laboratory science class on earth-surface processes, with exercises emphasizing how erosion, transportation, and deposition modifies landforms. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	L or SQ	
GPH	212	Introduction to Meteorology	Fundamentals of weather and climate, including basic atmospheric processes and elements. Students whose curricula require a lab course must also register for GPH 214. Both GPH 212 and 214 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SQ	
GPH	213	Introduction to Climatology	Fundamentals of meteorological/climatological analysis, including terminology and symbology. Recommended for meteorology/climatology program students. Both GPH 213 and GPH 215 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SG	
GPH	214	Introduction to Meteorology Laboratory	Introduces basic meteorological/climatological data and measurements. Suggested concurrent enrollment in GPH 212. Both GPH 212 and 214 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.	SQ	
GPH	215	Introduction to Climatology Laboratory	Fundamentals of meteorological/climatological map analysis and interpretation. Recommended for meteorology/climatology program students. May be taken concurrently with GPH 213. Both GPH 213 and GPH 215 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.	SG	

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GPH	271	Maps and Map Reading	Map types, uses, limitations, and evolution. Communication via paper and digital medium. Navigation, interpretation, projections, sources, symbols, classification, case, handling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	314	Global Change	Response of Earth's natural systems (atmosphere, hydrosphere, lithosphere, biosphere) to past environmental change, and effects of potential future changes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & G	
GPH	370	Geographic Information Technologies	Introduces modern geographic information technologies, including cartography, GIS, remote sensing, global positioning systems, and statistical analyses. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	371	Introduction to Cartography and Georepresentation	Study and creation of maps. Fundamental mapping principles (projection, scale, generalization, symbolization) and computer-based cartographic production. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	372	Air Photo Interpretation	Subset, remote sensing, includes photography, films, aerial geometry, image components, stereoscopy, photogrammetry, ground truthing; interpret physical, cultural, economic, intelligence information.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	373	Geographic Information Science I	History and basic aspects of GIS including map and data file structure, conversions, and synthesis with a computerized environment. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	CS	Pre-requisite: GPH 370 with C or better
GPH	381	Geography of Natural Resources	Nature and distribution of natural resources and the problems and principles associated with their use.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	401	Topics in Physical Geography	Open to students qualified to pursue independent studies.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GPH	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in discipline. Requires weekly reflective reading and writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	C	
GPH	405	Energy and Environment	Sources, regulatory and technical controls, distribution, and consequences of the supply and human use of energy. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	409	Synoptic Meteorology I	Diagnostic techniques and synoptic forecasting. Includes techniques of weather analysis, map interpretation, and satellite and radar analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GPH	410	Synoptic Meteorology II	Diagnostic techniques and synoptic forecasting. Includes techniques of weather analysis, map interpretation, and satellite and radar analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GPH	411	Physical Geography	Introduces physiography and the physical elements of the environment. Credit is allowed for only GPH 411 or 111.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	412	Physical Climatology	Physical processes in the earth-atmosphere system on regional and global scales; concepts and analysis of energy, momentum, and mass balances.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	413	Meteorological Instruments and Measurement	Design and operation of ground-base and aerological weather measurement systems. Collection, reduction, storage, retrieval, and analysis of data.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	414	Climate Change	Surveys three climate research areas: paleoclimatology, theories (e.g., greenhouse warming), numerical modeling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	418	Landforms of the Western United States	Studies landforms and geomorphic processes in the western United States, including lecture, topographical maps, aerial photographs, satellite imagery, and field trips. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	
GPH	422	Plant Geography	Plant communities of the world and their interpretation, emphasizing North American plant associations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: GPH 111 or BIO 187 (or both PLB 200 and PLB 201) with C or better; Credit is allowed for only GPH or PLB 422
GPH	433	Alpine and Arctic Environments	Regional study of advantages and limitations of the natural environment upon present and future problems involving resource distribution, human activities, and regional and interregional adjustments.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	471	Geographics: Interactive and Animated Cartography and Geovisualization	Advanced cartography, stressing influence and application of the computer on geographic representation. Emphasizes creation of maps for the Internet. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	

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GPH	473	Geographic Information Science II	GIS as a basis for microcomputer spatial analysis and synthesis. Includes digitizing, database organization, spatial retrieval, and graphics. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	Pre-requisites: Must have completed both GPH 373 and CSE 100 with a grade of C or greater or be currently enrolled
GPH	474	Dynamic Meteorology I	Large-scale atmospheric motion, kinematics, Newton's laws, wind equation, baroclinics, vorticity, and the midlatitude depression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	475	Dynamic Meteorology II	Topics in climate dynamics. General circulation, numerical modeling, teleconnection phenomena, and surface-atmosphere interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	481	Environmental Geography	Problems of environmental quality, including uses of spatial analysis, research design, and fieldwork in urban and rural systems.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	483	Geographic Information Analysis	Basics of spatial data analysis. Topics include point pattern analysis, spatial autocorrelation, spatial regression, and kriging. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	491	Geographic Field Methods	Field techniques, including use of aerial photos, large-scale maps, and fractional code system of mapping; urban and rural field analysis to be done off campus. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GPH	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
GPH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GPH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
GPH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GPH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	511	Fluvial Processes	Geographical aspects of processes of river erosion, transportation, sedimentation: emphasizing spatial characteristics of forces, resistance, landforms, sediment; includes computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	533	Snow and Ice	Processes, distribution, climatic interactions of snow/ice emphasizing mass balance, snow stratigraphy/metamorphism and glacier/snowpack climatology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	535	Water Law and Planning	In-depth study of legal materials providing substantive knowledge of water law, water management issues, and land use planning options.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	573	Geographic Information Science III	In-depth look at programming within GIS. Focuses on programming and methodology, utilizing specific software, and basic scientific computing. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	575	Geographic Applications of Remote Sensing	Uses imaging and nonimaging methods of remote acquisition of data, including satellite sensors, airborne radar, multiband scanning, conventional photographic sensors, and ground-based equipment.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

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GPH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	596	Advanced Spatial Statistics	Multivariate and advanced statistical techniques including Box-Jenkins modeling and spectral analysis. Requires project papers and presentations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	601	Introduction to Geographic Information Systems	Introduces GIS theory and practice for professionals. Module 1 of the fall semester for MAS-GIS professional degree program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	602	Intermediate GIS	Intermediate GIS for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	603	Spatial Statistics and Modeling	Spatial statistics and modeling for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	604	Implementation in the Corporate and Public Sectors	Uses GIS in the corporate and public sectors. GIS ethics. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	605	GIS Project: Real-World GIS Project Planning and Implementation for Public Sector Agencies	GIS project development for the public sector. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	606	Gis Project Presentation	Mastering technical project presentation for GIS professionals. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	610	Programming the GIS Environment	Programming the GIS environment for the MAS-GIS program. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	620	Remote Sensing	Remote sensing for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	630	Air Photo Interpretation for MAS-GIS	Air photo interpretation for the MAS-GIS program. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	640	GIS for Business	Uses GIS in business for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	650	GIS for the Internet	GIS for the Internet.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		

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GPH	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GPH	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GRA	101	Designing Life	Helps students develop strategies to successfully navigate their education experience. Focuses on critical and reflective thinking.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Students may not enroll in GRA 101 if they received a D or better in GRA 440. Must be a College of Design student
GRA	111	Graphic Design History I	Surveys development of visual communication from its origins to the 20th century. Investigates significant technological, industrial, and social influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	

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GRA	112	Graphic Design History II	Surveys contemporary and 20th-century graphic design. Investigates relationships among graphic design and related disciplines, technological, industrial, and social influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 111 with C or better
GRA	121	Principles for Graphic Design I	Graphic design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design student; Co-requisite: GRA 111
GRA	122	Principles for Graphic Design II	Continued exploration of graphic design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 121 with a C or better; Co-requisite: GRA 112
GRA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	220	Design Drawing I	Drawing as language to explore and communicate ideas. Development of drawing aptitude as language and process for graphic design thinking.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 122 with C or better; Passed Milestone; Co-requisites: GRA 221; GRA 222
GRA	221	Letterform	Drawing of letterforms with focus on proportion and structure. Introduces letterform nomenclature and classifications. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA122 with C or better; Passed Milestone; Co-requisite: GRA 220; GRA 222
GRA	222	Visual Communication I	Theoretical and applied studies in shape, drawing, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA122 with C or better; Passed Milestone; Co-requisite: GRA 220; GRA 221
GRA	223	Typography	Theoretical exercises in spatial and textural qualities of type. Problems in tension, activation, and balance. Exercises in simple typographical applications. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 220 and GRA 221 with C or better; Co-requisite: GRA 224
GRA	224	Visual Communication II	Transition from theoretical to applied problems. Emphasizes refinement of visual skills. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 220 and GRA 222 with C or better; Co-requisite: GRA 223
GRA	225	Communication/Interaction Design Theory	Theory related to the design of communication artifacts and interaction within various media environments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
GRA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	321	Technology for Design I	Explores the process of technology in design. Projects interface with GRA 361.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design student; Co-requisite: GRA 361
GRA	322	Technology for Design II	Emphasizes advanced technology in design problems. Projects interface with GRA 362.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 321 with C or better; Co-requisite: GRA 362
GRA	345	Design Rhetoric	Develops critical thinking and expression of ideas in concise and persuasive written and spoken form.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	L	Pre-requisites: Graphic Design, Architecture, Interior Design, Industrial Design, Housing Community Development or Design Studies BA; ENG 102, 105 or 108 with C or better
GRA	361	Visual Communication III	Explores methodologies of strategic communication, development of visual systems, and information design ideation processes leading to applied projects in print and digital media. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 223 & 224 with C or better; Co-requisite: GRA 321
GRA	362	Visual Communication IV	Comprehensive studio projects with emphasis on production processes leading to multidisciplinary applied projects in print, 3-D space, and digital media. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 361 with C or better; Co-requisite: GRA 322
GRA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	401	Creative Environment	Explores and investigates theories of the psychology of space, psychology of people in space, and the psychology of objects as it pertains to creativity and the creative environment.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
GRA	421	Exhibit Design	Familiarization with the processes associated with the design of exhibits, especially visual communication in 3-D.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 362 with C or better; Co-requisites: GRA 422; GRA 461
GRA	422	Motion Graphics and Interaction Design	Discusses and explores theory related to the design of motion graphics and interaction through lectures and studio projects.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 322 with C or better; Co-requisites: GRA 421; GRA 461
GRA	423	Advanced Interaction Design	Advanced discussion and exploration of theory related to the design of interaction.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 422
GRA	424	Advanced Media	Advanced exploration of digital media for communication.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 422 with C or better
GRA	440	Finding Purpose	Career orientation in the creative professions, including value clarification, decision making, lifestyle planning, goal setting, and expression of individual talents.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Students may not enroll in GRA 440 if they received a D or better in GRA 101
GRA	461	Visual Communication V	Comprehensive studio projects with emphasis on design processes, including research, writing, critical thinking, practice, presentation, and analysis. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 362 with C or better; Co-requisites: GRA 421; GRA 422
GRA	462	Visual Communication VI	Comprehensive studio projects pursued in cooperation with a public organization or private enterprise. All projects culminate in an exhibit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 461 with C or better; Co-requisites: GRA 423; GRA 424
GRA	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
GRA	465	Collaborative Design Development II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
GRA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Graphic Design student; GRA 362 with C or better; Co-requisite: GRA 461
GRA	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
GRA	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
GRA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GRA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
GRA	526	Visiting Designers	Series of workshops (three per semester) in which students work closely with professionals and scholars in design and related disciplines.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design or PhD in Environmental Design & Planning student
GRA	561	Methods in Visual Communication I	Introduces methodology in visual communication.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design or PhD in Environmental Design & Planning student
GRA	562	Methods in Visual Communication II	Advanced theories and methodologies in visual communication. Emphasizes visual search as the synthesis of theory and practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: DSC 561 with C or better
GRA	563	Thesis Document Design	Emphasizes the construction of the final thesis document as a visual communication object and/or medium.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design student
GRA	581	Internship in Teaching Design	Develop assignments, conduct critiques, structure dialogue, make presentations, and assist in the instruction of studio and lecture courses.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design student
GRA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
GRA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
GRD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
GRD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
GRD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
GRK	101	Elementary Ancient Greek	Ancient Greek grammar and vocabulary with an emphasis on developing reading skills. For beginning students only.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GRK	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GRK	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	201	Intermediate Ancient Greek	Continuation of GRK 101. Ancient Greek syntax and grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: GRK 101 with C or better

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GRK	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	301	Ancient Greek Literature I	Readings in ancient Greek prose; advanced grammar. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: GRK 201 with C or better
GRK	302	Ancient Greek Literature II	Continuation of GRK 301. Readings in ancient Greek poetry.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: GRK 301 with C or better
GRK	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
GRK	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
GRK	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
GTD	501	Global Technology and Development	Major theories of economic, political, and social development, with particular emphasis on the impact of current technologies and globalization.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	503	Technology and the International Political System	Historical development of international political system, with emphasis on role of technology.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	505	Research Design in Technology and Development	Emphasizes techniques of primary data collection, effective uses of secondary sources, for qualitative and quantitative applications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	506	Quantitative Analysis in Technology and Development	Uses correlation and regression-based multivariate statistical approaches in development studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre Requisites: Graduate or Non Degree seeking Graduate Students Only
GTD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	School of Letters & Sciences	School of Letters and Sciences	1.		
GTD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
GTD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	School of Letters & Sciences	School of Letters and Sciences	1-12		
HCR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HCR	210	Clinical Health Care Ethics	Healthcare ethics emphasizing analysis and ethical decision making at clinical and health policy levels for healthcare professionals.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisite: ENG 102,105 or 108
HCR	220	Introduction to Nursing and Healthcare Systems	Introduces the social, political, and economic contexts in which the nursing profession and healthcare systems in the United States evolved.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	H	
HCR	230	Culture and Health	Cultures of diverse groups and health/illness. Cross-cultural communication, awareness of own cultural influences, indigenous and alternative healing practices.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	C & G	
HCR	240	Human Pathophysiology	Chemical, biologic, biochemical, and psychological processes used in study of structural and functional alterations in health with selected therapeutics.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Undergraduate Nursing students; BIO 201, BIO 202, CHM 101 or higher, MIC 205 and MIC 206 with C or better
HCR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		

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HCR	550	Principles of Epidemiology for Healthcare	Introductory graduate-level course intended to provide students with fundamental epidemiology concepts and methods which can be applied to their field of interest.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	561	Responsible Conduct of Clinical Research	Introduces concepts and policies for the responsible conduct of research (RCOR), institutional review boards, and dissemination of findings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	562	Clinical Research Data Management and Technology Implementation	Orientation to database design and management, technology assessment methods, auditing procedures for continuous quality improvement (CQI), and cost-effectiveness analysis (CEA).	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	563	Clinical Research Management and Regulatory Affairs	Principles of clinical research management and regulatory affairs. Overview of national/international regulatory systems and agencies, and trends in conducting clinical research.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	564	Capstone Clinical Research Management Project	Culmination course integrating all components of CRM core courses demonstrating knowledge and competency in designing and managing clinical trials. Students must have documentation of unencumbered professional license in the state where the capstone project will be completed, if required.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: HCR 550, HCR 561 and HCR 562 with a C or better; Pre or Co-requisite: HCR 563 (with C or better if completed)
HCR	565	Clinical Research Operations	Development, implementation, and operations of FDA clinical research trials, including budgeting, contract negotiations, site evaluation, marketing, project management, and reporting.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	569	Applied Principles of Data Management & Inferential Statistics in Healthcare Research	Applied principles of data management and inferential statistics in epidemiological, psychosocial, medical, nursing, and healthcare research. Seminar. Prerequisites: DNP 679; HCR 572; NUR 609; admission to Clinical Research Management Certificate(NUCRGRCC) or master's program (NUCRMMS), any graduate nursing program.	N	SEM	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Clinical Research Management Certificate or Master's program or any graduate Nursing program; NUR 609, DNP 679 and HCR 572 with D or better
HCR	570	Introduction to International Health Systems, Professions, and Research	Introduces systems of international healthcare delivery, professions that provide healthcare delivery, and international research principles and practices.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	571	Cultural Diversity in Clinical Practice	Introduces culturally diverse aspects of clinical care, including culture bound syndromes folk practices, appropriate assessment approaches, and client/provider interaction.	N	DIS	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	572	International Health Capstone Project	Culminating course integrating all International Health requirements that produce culturally responsive implementation and evaluation plan for the student's clinical practice. A portion of the course will be held in Mexico.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
HCR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HCR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HEB	101	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
HEB	102	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: HEB 101 with C or better
HEB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HEB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	201	Intermediate Modern Hebrew	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Pre-requisites: HEB 102 with C or better
HEB	202	Intermediate Modern Hebrew	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Pre-requisites: HEB 201 with C or better
HEB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	313	Advanced Modern Hebrew	Continued development of ability to communicate orally and in writing. Reading of selected literary works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: Must have completed HEB 202 with a grade of C or greater or be currently enrolled
HEB	314	Advanced Modern Hebrew	Continued development of ability to communicate orally and in writing. Reading of selected literary works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: Must have completed HEB 313 with a grade of C or greater or be currently enrolled
HEB	375	Contemporary Culture of Israel	Intense study of aspects of historical, social, political, and cultural modern life in Israel. Beginning of Zionism to present day.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
HEB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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HEB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
HEB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
HEB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	101	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	4.		
HED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
HED	510	Introduction to Higher Education	Overview of American higher education, including philosophical, political, and social aspects.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-4		
HED	527	Seminar: Student Affairs Administration	Organizational models, administrative competencies and skills, and emerging challenges of student affairs administration.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	533	The Community-Junior College	History, functions, organization, and current issues. Meets Arizona community college course requirement for certification.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
HED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HED	602	Institutional Research/Strategic Planning	Provides an overview of policy research and planning in higher education at the campus system and governing/coordinating agency levels.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	611	Curriculum and Instruction	Curriculum development, instructional organization, and improvement of instruction in higher education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	620	Diversity in Higher Education	Overview of the demographic profile of college students, faculty, and staff. Addresses issues of access, retention, and development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	644	Higher Education Finance and Budgeting	Financial planning and budgeting in higher education institutions. Issues related to financing public and private colleges and universities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	649	Law of Higher Education	Analyzes legal issues related to higher education; examines key court decisions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	668	Grant Writing and Grant Makers: The Washington Context	Develops successful proposals for educational research projects. Students gain experience writing for federal agencies, reviewing, and being evaluated on grant proposals.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking); Credit is allowed for only CPY or HED 668
HED	679	The American College Student	Overview of American college student from demographic, background characteristics, and values/attitudes/perspectives. Includes access, persistence, and degree completion.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	687	Governance, Coordination, and External Influences in Higher Education	Study of governance and coordination in higher education systems and the impact of external forces on them.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	688	Organizational Theory	Major views of organizations and their influence on role definition and participant behaviors in educational organization.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	689	Leadership in Higher Education	Theory and practice of leadership and administration in higher education institutions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	702	Critical Policy Issues In Higher Education	How great expectations in Washington are dashed in Oakland, Pressman and Wildavsky (1984) state that "policies imply theories--Whether stated explicitly or not, policies point to a chain of causation between initial conditions and future consequences." Policy can be broadly defined as a principal, plan, or course of action undertaken by governments, organizations, or individuals and designed to influence and determine decisions and actions. Many assumptions made by policy makers and other constituencies as well as competing social and political considerations shape the development of policy in higher education. Given the importance of federal and state public policy-making to higher education, we examine the effect of public policy on the functioning of colleges and universities and explore the various facets of public policy issues. Examines critical policy issues for higher education and the assumptions underlying their development.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student

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HED	704	Qualitative Case Study Approaches For Policy Research In Higher Education	Provides advanced graduate students with instruction in qualitative case study research approaches as applied to questions of higher education policy. Emphasizes individual and group interviewing as techniques for qualitative case study data collection, coding, and analysis. Particularly useful for advanced doctoral students who plan to conduct a qualitative dissertation related to a higher education policy topic.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	705	Ethics, Diversity, and Educational Leadership in Higher and Postsecondary Education	Students read and discuss recent writings on ethical decision making as related to the context of higher and postsecondary education. According to Shapiro & Gross (2008), "educational leaders have always had to make important decisions that affect the studies and lives of the next generation." St. John (2009) underscores the importance to ethical practice of understanding critical higher education issues in organizational practice, the gaps between moral beliefs and actions, and improving equity in organizations. Doctoral students review theoretical concepts related to ethical decision making and apply them to moral dilemmas in higher and postsecondary education leadership, policy-making, and organizational change.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student
HED	707	Higher Education Institutional Types and Innovative Initiatives	Students gain an in-depth understanding of the various types of higher and postsecondary education institutions in the United States, including two-year and four-year colleges and universities, historically Black colleges and universities (HBCU's), Hispanic-serving institutions (HSI's), tribal colleges, women's colleges, faith-based colleges, and for-profit colleges. Covers current classification system used to group each institutional type. Examines the contribution of each institutional type to the development of American higher education, their current status, and potential futures. Studies exemplary programs, within various institutional contexts, that seek to address the academic needs of diverse student communities. Guest speakers and an out-of-state institutional site visit provide opportunities for students to interact with and learn from faculty and administrators within institutional contexts.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
HED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
HES	301	Adult Fitness I	Physical fitness and benefits of exercise. Emphasizes fitness assessment and designing an individualized assessment program. Y/E grade only. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		
HES	301	Adult Fitness I	Physical fitness and benefits of exercise. Emphasizes fitness assessment and designing an individualized assessment program. Y/E grade only. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		Credit is allowed for only HES 301, EPE 301,325, 494, HES 301or HES 494
HES	302	Adult Fitness II	Continuation of HES 301. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		
HES	302	Adult Fitness II	Continuation of HES 301. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: HES 301 completed with Y grade; Credit is allowed for only EPE 301, 325, 494 or HES 302

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HES	303	Adult Fitness III	Continuation of HES 302. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: HES 301 with Y grade; HES 302 with Y grade; Credit is allowed for only EPE 301, 325, 494 or HES 303
HES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
HHE	510	Theory of Healthcare Design	Theoretical problem solving and practical application strategies used in the design of healthcare and healing environments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHE	540	Healthcare Design Typologies: Case Studies	Industry best practices and benchmarks for various types of hospital facilities and healthcare systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	591	Seminar		Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHS	100	Introduction to Holistic Health	Studies holistic health in a bio-psycho-socio-cultural context for health promotion and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	300	Overview of Complementary Health Systems	Identifies and describes major approaches to complementary health models in the context of holistic health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	302	Evidence-Based Complementary Health Modalities	Investigates complementary practices in the context of scholarly knowledge and standards for healthcare.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	400	Community-Based Complementary Health Services	Examines recent developments in community-based health and human services from a holistic perspective.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	402	Work, Health and the Family	Examines issues and programs in the contemporary workplace and society. Future directions for the family and its health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	403	Community Mental Health and Human Services	Examines concepts, issues, and programs in community mental health and the delivery of human services.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	405	Seminar in Holistic Health	Integrates concepts and issues in holistic health within philosophical, historical, political, economic, and cultural frameworks.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		
HHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
HHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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HIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	494	Special Topics		N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIS	101	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	102	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G & H	
HIS	103	The United States	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	104	The United States	Growth of the Republic from the Civil War period to the present day.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	300	Historical Methods	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L & H	
HIS	301	Writing in History	Focuses on methods of writing, reasoning, and arguing in American Studies. Emphasizes the drafting of summaries and short arguments.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
HIS	303	American Cultural History I	First of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	304	American Cultural History II	Second of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	305	History of American Systems to 1865	First of a two-part survey of political, legal, and economic institutions, placed in the context of the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	306	History of American Systems since 1865	Second in a two-part survey of political, legal, and economic institutions, placed in the context of a dynamic industrialist capitalist society, from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	320	19th-Century West	Social, political, and economic development of trans-Mississippi West beginning with Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	331	American Indians	History of the American Indian with emphasis on the government's Indian policy and the impact of the white man on tribal culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	340	American Military History	Studies the role of the military in American life during war and peace from colonial times to the present day.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	355	World History to 1500	Studies world history to 1500 with emphasis on the connection between regional history and the growth of world civilization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	356	World History Since 1500	Studies world history since 1500, with emphasis on the connection between regional history and the growth of world civilization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	359	Marginality and Social Identity in Late Medieval and Early Modern Europe	Social history of changing definitions and perceptions of marginality, and how these conceptions conditioned responses to marginalized groups and individuals.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: must have completed ENG 102 or 105 with a grade of C or greater AND completed HIS 101 or 300 with a grade of C or greater or be currently enrolled.
HIS	363	Reformation	The Protestant and Catholic Reformations in the 16th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	364	African American History and Culture Since 1865.	Studies African American history and culture from the end of the Civil War in 1865 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H & C	
HIS	377	Women in Europe, 1700-Present	Historical survey of European women's lives, emphasizing the impact of gender on social, political, economic, and cultural experience.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	378	20th Century Europe at War, 1900-1945	Surveys the history of the World Wars in Europe, emphasizing the relationship among military developments, culture, and society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
HIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		

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HIS	402	American Colonies: Settlement and Society in Colonial North America, 1600-1763	Examines the history of the English and French empires in North America and the Caribbean. Explores the social, economic, cultural, political, and economic development of the French and English colonies in the Atlantic World from the 17th century through the Seven Years War (1754-1763). Examines how the English and French colonies developed and matured in response to one another as well as the consequences of their persistent competition and conflict for the larger Atlantic World.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	403	Empire and Independence in North America, 1763-1800	Examines the history of British North America from 1763 through the organization of the United States' Republic.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	Pre-requisites: must have completed one of the following sets with a grade of C or greater: HIS 101 & 102, HIS 103 & 104, HIS 303 & 304, HIS 305 & 3056 or HIS 355 & 356.
HIS	406	Civil War and Reconstruction	Causes and development of the war; political, constitutional, and social issues of Reconstruction and their effects on postwar America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & H	
HIS	411	Contemporary America	The United States from 1945 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & H	
HIS	419	Topics in American Historical Periods	Focuses on specific periods in American history. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	423	Mexico	Political, economic, social, and cultural developments from 1810 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	424	The Hispanic Southwest	Development of the Southwest in the Spanish and Mexican periods to 1848.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
HIS	425	Frontiers of Hispanic Society and Culture	History of interactions between peoples and cultures of the Iberian Peninsula and Iberian global expansion through the Habsburg period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: must have completed ENG 102 or 105 with a grade of C or greater AND completed HIS101 or 300 or 355 with a grade of C or greater or be currently enrolled.
HIS	429	Topics in American Regional History	Focuses on the history of specific geographic regions within North America. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	430	20th Century Chicano/a History	Historical development of the Chicano community in the 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	431	Social History of American Women	Examines women's social position in America. In-depth analysis of specific women's issues in terms of change over time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H & C	
HIS	439	Topics in American Race, Class, Gender, and Ethnicity	Emphasizes the use of race, class, gender, and/or ethnicity as categories of historical analysis.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	443	Constitutional History of the United States	Origin and development of the American constitutional system, from Reconstruction to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	444	American Urban History	The history of the city in American life from the 19th century to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	449	Topics in American Themes and Issues	Focuses on significant themes and issues in American history.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	450	Topics in Comparative History	Comparative history with reference to one or more themes.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	454	History of Genocide	Examines the individuals and institutions responsible for the most infamous episodes of state-sanctioned violence in the 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	458	Africa Since 1400	Studies African history and culture since 1400, emphasizing ideas, events, institutions, foreign influence and its effect on the continent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	462	The African Diaspora	Enforced dispersal of Africans during the Slave Trade emphasizing its causes, effects on Africa, and the enslaved in the Americas.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	465	Origins of Racism	Studies the history of racial discrimination with emphasis on the connection among race, ideology, and the global economy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HIS	467	Topics In Europe	Courses under this title focus on specific periods in European history. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HIS	469	Modern Germany	Germany since 1840.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	475	Topics in European Regional and National History	Focuses on the history of specific geographic regions or nations in Europe.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	482	Topics in European Gender, Ethnicity, & Class	Emphasizes the use of gender, ethnicity, and/or class as categories of historical analysis.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HIS	483	History of Women and Gender in Europe to 1789	European women's lives in the premodern period. Emphasizes the impact of gender on social, political, economic, religious, and cultural experience.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: ENG 102 or 105 with C or better; HIS 101 or 300 with C or better
HIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	487	Topics in European Themes and Issues	Focuses on significant themes and issues in European history.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HIS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
HIS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
HIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7	L	Pre-requisites: must have completed HIS 300 with a grade of C or greater; or be currently enrolled; AND have completed ENG 102, or 105 or 108 with a grade of C or better
HIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
HIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-3		
HON	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Honors students only; Total earned hours must be equal to or less than 60
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	273	The Human Event: Science Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on scientific thought.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L & H	Pre-requisites: HON 171 with C or better or currently enrolled
HON	273	The Human Event: Science Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on scientific thought.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L & H	Pre-requisites: HON 171 with C or better or currently enrolled
HON	274	The Human Event: Social Science Focus	Continuation of HON 171 from the Renaissance through the modern period; emphasizes the development of the social sciences.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		Pre-requisite: HON 171 with C or better
HON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		
HON	298	Honors Directed Study		N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		
HON	310	Justice and Law	Philosophical study of theories of justice in relation to law and morality. Required for Certificate in Philosophy, Politics, and Law.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	317	Philosophers, Poets, and Revolutionaries in Latin America	A transdisciplinary honors course that introduces students to major intellectual currents in three regions of Latin America.	N	DIS	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	371	Freedom and Authority	Historical overview of concepts of liberty, responsibility, and power in Western societies, emphasizing 18th- to 20th-century developments.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	372	French Cultural Influences	Explores textual and cultural artifacts formative of French culture as a series of contacts and conflicts with other peoples and lifeways.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & G	
HON	373	Heroes, Heroines, and Villains	Examines concepts of heroic and villainous characteristics as expressed in the literature and visual arts of various cultures throughout history.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	374	Black and White Atlantic	Examines development (18th- to 20th-century) and cultural manifestations of Black/White race relations within the U.S. and between the U.S. and other nations.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & G	
HON	375	Science and the Modern Self	Concentrates on texts of the 19th and 20th centuries; explores how scientific discourse determines our notions of self.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	376	Law, Literature, and Life	Multidisciplinary approach to the subject of law, examining it through literature, history, and legal philosophy.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	Pre-requisites: Honors students only
HON	378	Culture and Society in England, Ireland, and Scotland	Chronologically explores texts, events, and sites for historical and cultural impact on development of England, Ireland, Scotland, and their countries' relationships with each other.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & H & G	
HON	379	Romantics, Victorians, and Moderns	Examines the development and impact of various literatures, arts, and ideas in England, Ireland, and Scotland from the Romantic through the Modern period.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & G	
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	410	Philosophy, Politics, and Law	Topics in political and legal philosophy, including political authority, obligation and disobedience, the nature of crime and punishment. Required for Certificate in Philosophy, Politics, and Law.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-12		Pre-requisite: Barrett Honors student
HON	485	Biosphere 2; Study Opportunity	For students participating in the ASU-sponsored program at Biosphere 2.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1-18		
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	497	Honors Colloquium		Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisite: Honors students only
HON	497	Honors Colloquium		Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisite: Honors students only
HON	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-7		Pre-requisites: Honors students only
HON	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HON	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-15		
HPS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HPS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	311	Origins, Evolution, and Creation	History of opposition to evolutionary thinking with special reference to American creationism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	312	History of Women in Science and Medicine	Examines history of gender issues in Western science and medicine from Greco-Roman antiquity through the beginning of the 21st century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU or SB	
HPS	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	Credit is allowed for only HPS 314 or PHI 314
HPS	322	History of Science	Development and application of scientific thinking from ancient times through the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H	
HPS	323	History of Science	Development and application of scientific thinking from the 18th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H	
HPS	325	History of Chinese Medicine	Explores developments of Chinese traditions dealing with the natural world, science, and medicine.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H & G	
HPS	330	History of Biology: Conflicts and Controversies	Focuses on 19th and 20th centuries, considering biology as a discipline. Evolution, problems of heredity, development, and cell theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
HPS	331	History of Medicine	Scientific study of the human body, changing theories of disease, evolution of practical opinions on treatment, and the emerging institutionalization of medical practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
HPS	332	The Darwinian Revolution	Origin, nature, and subsequent history of the ideas of Charles Darwin.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	336	Exploration and Science	500-year survey of exploration as a historical process and cultural activity of Western civilization, with emphasis on its links with modern science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SB & H	
HPS	340	Biology and Society	Explores interactions between biological sciences and society, e.g., biomedical, environmental, ethical, historical, legal, philosophical, political, and social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:with C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188. Students with credit for BIO 311, may not enroll in HPS 340
HPS	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	402	Technology, Society, and Human Values	Values that motivate humankind to create technology. Areas of conflict and resolution of conflict between values and technology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	410	Professional Values in Science	Considers issues related to values in science such as collaboration, finances, legal issues, media, mentoring, ownership of ideas, scientific integrity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
HPS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
HPS	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
HPS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
HPS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
HPS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
HPS	511	History of Science	Teaches crucial skills needed for graduate-level research in history of science, including (1) critical analysis of primary sources from different periods in the history of science and (2) critical analysis and familiarity with important trends in the secondary literature ("historiography of science").	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	512	Philosophy of Science	Serves as a graduate-level introduction to five central themes in philosophy of science, and as a means to begin to investigate new topics.	N	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	513	Decisions and Strategies	Explores topics in decision theory, game theory, social choice theory, epistemology, and related fields. May be repeated for credit.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HPS	516	History of Biology	Covers themes such as the voyages of discovery, systematics, and classification; morphology and embryology; Darwin and evolutionary biology; the rise of genetics; molecular and organismal approaches of post-WWII biology; recent history of biology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	550	Methods in History and Philosophy of Science	Introduces current methods in the practice of history and philosophy of science. Organized around major historiographical schools in the history of science such as social, institutional, intellectual, cultural, or feminist history of science and current concerns in philosophy of science such as causation, explanation, modeling, and epistemology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
HPS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	610	History and Philosophy of Science Lab	This course brings together graduate students, postdocs, and faculty members in HPS. Sessions include panel discussions of HPS topics from multiple perspectives, student-led discussions of important literature, practice presentations of papers for national meetings, discussion of dissertation and thesis ideas, and other activities that help to forge an active intellectual lab group.	N	DIS	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
HPS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
HSD	501	Theories of Science and Democracy	Provides an in-depth introduction to theoretical perspectives on the role and place of science in democratic societies and democratic governance. Emphasizes how the ideas, ideologies, and practices of science are integrated into the design and implementation of government decision making, as well as how science both shapes and is shaped by the political organization and ordering of society. Pursues such questions in the context of U.S. politics, comparatively between the U.S. and Europe, and in emerging regimes of international governance.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	502	Analysis of Knowledge and Expertise in Policy Decisions	Focuses on the role of knowledge and expertise in political and policy decision making. Particular emphasis is placed on the analysis of knowledge systems (formalized institutional approaches to the production, validation, and use of knowledge and expertise in policy decision making), their modes of failure, and the design of approaches that may be able to prevent, avoid, or reduce the frequency of such failures.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	503	Analysis of Scientific and Technological Innovation	Examines the governance of science and technology through a focus on emerging technologies whose potential consequences in society are apparent only in anticipation and whose manifestations are still being shaped by local, domestic, and international institutions. These emerging technologies include nanotechnologies, synthetic biology, and other technologies associated with genetic modification, and information and cognitive science and neuro-technologies.	N	SEM	N	OPT	Graduate College	Graduate College	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HSD	504	Analysis of Large-Scale Socio-Technological Systems	Provide skills and methods to analyze the design and management of large-scale socio-technological systems and the societal impacts of large-scale technological systems change. Emphasizes assessing the intertwining of lives and livelihoods in large-scale technological systems and the risks and vulnerabilities associated with large-scale systems failures, including the effects of both technological failures and natural hazards.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
HSD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
HSD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
HSD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Graduate College	Graduate College	1-12		
HSD	601	Core Seminar I	Interdisciplinary synthesis, theoretical foundations, and methods for humanistic and social science research on science and technology.	N	SEM	N	OPT	Graduate College	Graduate College	4.		
HSD	602	Core Seminar II	Interdisciplinary synthesis, theoretical foundations, and methods for humanistic and social science research on science and technology. Continuation of HSD 601.	N	SEM	N	OPT	Graduate College	Graduate College	4.		
HSD	610	Colloquium	Regular meeting for the entire HSDST community. Includes outside speakers, student and faculty member presentations, and community discussions. May be repeated for credit for a total of 6 hours.	N	SEM	Y	OPT	Graduate College	Graduate College	1.		
HSD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-15		
HSD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
HSD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Graduate College	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HSM	220	Health Care Organizations	Overview of United States healthcare delivery systems; financing, health policy, basic principles of budgeting, cost-benefit analysis, and resource management.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.	H	
HSM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HSM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	493	Honors Thesis		N	PRA	N	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-6		
HSM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HSM	502	Health Care Organization	Concepts, structures, functions, and values that characterize contemporary healthcare systems in the United States.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	505	Managerial Epidemiology I	Basic constructs and measures of epidemiology. Epidemiologic study designs. Potential impact of chance, bias, confounding, on an epidemiologic study. Causal criteria; levels of evidence in epidemiological studies, implications and limitations of statistical association.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		Pre-requisites: HSM 561 with D or better
HSM	512	Healthcare Economics	Economics of production and distribution of healthcare services, with special emphasis on the impact of regulation, competition, and economic incentives.	N	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	522	Health Sector Information Management	Information technology and knowledge management applications in the health sector, including care delivery and financing institutions and in the pharmaceutical and biotechnology industries.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	542	Healthcare Law	Legal aspects of healthcare delivery for hospital and health services administration. Legal responsibilities of the hospital administrator and staff.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	561	Biostatistics	Aspects of descriptive statistics and statistical inference most relevant to health issues, including data, rates, and confidence intervals.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	564	Health Care Finance	Overview of the acquisition, allocation, and management of financial resources by healthcare providers. Focuses on economic, financial, and accounting principles.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	565	Introduction to Health Policy	Current policy issues in health through concepts of access, cost, and quality; issues relating to disease trends and policy formulation.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	566	Managerial Epidemiology II	Basic principles of epidemiology, evaluation of etiology, natural history, intervention therapy, and disease prevention.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	575	Health Policy Management and Evaluation	Provides students with the analytical techniques and real world experience to manage the implementation and evaluation of changes in health policy.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	578	Managing Clinical Trials	Introduces students to theoretical and practical aspects of randomized controlled clinical trial methodology.	N	LEC	N	GRD	W.P. Carey School of Business	School of Health Management and Policy	3.		Pre-requisite: HSM 505
HSM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	589	Healthcare Strategic Management	Capstone assessment of current policies, problems, and controversies across the broad spectrum of health services administration.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H & G	Credit is allowed for only HST 101 or SGS 111
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	103	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G & H	
HST	105	Slavic Civilization	Development of Slavic cultures and societies from medieval Byzantium to the present; introduces modern Eurasia.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	106	Asian Civilizations	Civilizations of China, Japan, and India from antiquity to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G & H	
HST	107	Asian Civilizations	Civilizations of China, Japan, India, and Southeast Asia from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	108	Introduction to Japan	Historical survey of the people, culture, politics, and economy of Japan, supplemented by audiovisual presentations. Intended for nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		Pre-requisites: Must be a BA History student; Must have less than or equal to 40 total earned hours
HST	200	Historical Themes	General introduction to selected themes in history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	201	Historical Themes in Asia	General introduction to selected themes in Asian history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	202	Historical Themes in Europe	General introduction to selected themes in European history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	203	Historical Themes in Latin America	General introduction to selected themes in Latin American history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	204	Historical Themes in the US	General introduction to selected themes in United States history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	205	Historical Themes in Africa	General introduction to selected themes in African history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	210	American Social History	American society from the colonial period to the present. Ethnicity, race, age, and sex as factors in historical experience.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	211	American Jewish History	Chronological analysis of Jews and Judaism in American history and letters.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G	
HST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
HST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
HST	300	Historical Inquiry	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU or SB) & H	Pre-requisites: Must be a student in one of the following: Secondary Ed-History, Secondary Ed - Social Stds, History, History (Minor); Must have 45 or greater earned hours; Must have completed either ENG 102 or 105 with a grade of C or greater

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HST	302	Studies in History	Specialized topics in history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	303	Studies in Asian History	Specialized topics in Asian history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	304	Studies in European History	Specialized topics in European history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	305	Studies in Latin American History	Specialized topics in Latin American history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	306	Studies in United States History	Specialized topics in United States history. Explores regions, cultures, and issues in history, and their interpretation in historical scholarship.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	307	Studies in African History	Specialized topics in African history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	H	
HST	309	Exploration and Empire	Surveys European discovery, exploration, and imperialism in the early modern and modern periods.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
HST	310	Film as History	Surveys moving image media as recorder, object, and writer of history.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
HST	312	History of Women in Science and Medicine	Examines history of gender issues in Western science and medicine from Greco-Roman antiquity through the beginning of the 21st century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU or SB	
HST	313	American Cultural History to 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the nation's colonial and early national periods.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	314	American Cultural History Since 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the age of industrialism to modern U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	315	Political History of the U S	American political history since independence, focusing post-1865. Evaluates major trends in issues, presidential leadership, elections, and state politics.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	316	20th-Century U.S. Foreign Relations	U.S. relations with foreign powers from the late 19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	319	U.S. Urban History to 1850	History of the city in American life from the colonial period to the mid-19th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	320	U.S. Urban History since 1850	History of the city in American life from the mid-19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	321	Constitutional Hist/US to 1965	Origin and development of the American constitutional system from colonial period through the Civil War.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	322	Constitutional History of the United States Since 1865	Development of the U.S. constitutional system from Reconstruction to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	323	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites:Completed ENG 101 & ENG 102 with a grade of C or better. If credit has been received in HST 323 or AFR 335, you may not enroll in TCL 335
HST	325	Immigration and Ethnicity in the United States	Origins, historical development, and future of a multiethnic society, 1492 to 2050.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	327	Women in US History 1600 to 1880	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	329	Women in 20th-Century US West	Examines how women of various cultures have contended for and shaped the U.S. West, including the West of imagination.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	H & C	

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HST	330	Mexican Women in the U.S.	Overview of Chicana history from Mesoamerican origins to the present, focusing on Mexican women in the western U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H & C	
HST	331	Mexican American History to 1900	Mexican American history from pre-Hispanic origins to frontier journeys north through 19th-century life in the U.S. Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	332	Mexican American History Since 1900	Traces the formation of Mexican American communities across the rural and urban U.S. and examines 20th-century immigration from Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	333	African American History to 1865	The African American in American history, thought, and culture from slavery to 1865.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	334	African American History Since 1865	The African American in American history, thought, and culture from 1865 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	337	American Indian History to 1900	Cultural, economic, political, and social continuity and change of American Indian communities to 1900.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	338	American Indian History since 1900	Cultural, economic, political, and social continuity and change of American Indian communities from 1900 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	341	U.S. West 19th Century	Social, political, and economic development of the trans-Mississippi West, beginning with the Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	342	US West 20th Century	Role of the western states in U.S. history since 1890 emphasizing politics, the environment, industry and labor, and ethnic minorities.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	343	American Southwest	Development of the region from 1848 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	344	Arizona	Emergence of the state from early times to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	347	Ancient Greece	History and civilization of the Greek world from 650 BCE to the death of Alexander the Great.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	348	Rome	History and civilization of Rome from the beginning of the Republic to the end of the Empire.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	349	Early Middle Ages	Political, socioeconomic, and cultural developments of Western Europe from the 5th through 10th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	350	Later Middle Ages	Political, socioeconomic, and cultural developments of Western Europe from the 11th through 15th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	351	Renaissance Europe	Culture of the Renaissance in Italy and Northern Europe from the 14th to the early 16th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU or SB) & H	
HST	352	Europe's Reformations	Causes and implications of the major Protestant, Catholic, and Radical religious reformations in 16th- and 17th-century Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU or SB) & H	
HST	353	Old Regime in Europe	Society and culture of Europe during the 17th and 18th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	354	Revolutionary Europe	Political, social, economic, and intellectual currents in Europe from the French through the Russian Revolutions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	355	Total War & the Crisis of Modernity	Forces of change and instability in early 20th-century Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	356	Europe since 1945	Europe in its world setting since World War II, emphasizing major political and social issues from 1945 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	357	Philosophy and Religion	General survey of the development of central concepts in the philosophy of religion in the history of Western philosophy.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites:ENG 102, or ENG 105, or ENG 108, with a grade of C or better, or be currently enrolled

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HST	358	Jewish History from the Bible to 1492	Continuity and change in political, legal, economic, and sociocultural history of the Jews from biblical through medieval times.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	359	Jewish History from 1492 to 1948	Jewish history from early modern through modern times, highlighting emancipation, enlightenment, and Jewish responses to modernity.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	361	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
HST	362	Sex and Society in Classical and Medieval Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and religious change in classical and medieval Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	363	Sex and Society in Early Modern Europe	Family life, sex roles, and marriage and their relationship to political, economic, and religious change in early modern Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	364	Sex and Society in Modern Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and social changes in modern Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	365	Women in Europe	European women's diverse religious, ethnic, national, and economic roles in society, culture, and politics, 1750 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU or SB) & H	
HST	366	England to 1689	Political, economic, and social development of the English people to the late 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	367	Modern Britain	Political, economic, and social development in Britain from 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	368	Culture and Imagination in European History	Topics in European cultural and intellectual history.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
HST	370	Eastern Europe in Transition	Democratization, privatization, and identity transformations since the fall of communism in contemporary Eastern Europe and the former Soviet Union.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	371	Religion in Russia	Examines the history of the various religious traditions of Russia and the former USSR from an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
HST	372	Modern Middle East	Impact of the West and modernization upon Middle Eastern governments, religion, and society in the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	375	Colonial Latin America	Ancient civilization, exploration and conquerors, and colonial institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	376	Modern Latin America	Nationalistic development of the independent republics since 1821.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	377	Women in Colonial Latin America	History of women in colonial Latin America, cross-examining class, race, and gender relations in depth.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	H	
HST	378	Latin American Women: The National Period	Surveys the history of women, gender relations, and state policies in a broad continental setting, from independence to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	379	Rebellion & Revolution/So Amer	Political, economic, and social development of Spanish-speaking nations in South America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	380	Cultural History of Latin America	Main currents of thought, the outstanding thinkers, and their impact on 19th- and 20th-century Latin America. Cultural and institutional basis of Latin American life.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	381	South American Indian Religions	Introduces the sacred stories, ceremonies, and beliefs of Native South American peoples in their historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
HST	383	China	Political, economic, social, and cultural history of the Chinese people from early times to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	384	China	Political, economic, social, and cultural history of the Chinese people from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	

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HST	385	History of Chinese Medicine	Explores developments of Chinese traditions dealing with the natural world, science, and medicine.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H & G	
HST	386	Interpreting China's Classics	Study of selected Confucian and/or Taoist classics and ways they have been read in both Asian and Western scholarship.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
HST	387	Japan	Political, economic, social, and cultural history of the Japanese people from early times to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	388	Japan	Political, economic, social, and cultural history of the Japanese people from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	389	Japan Society and Values/Premod	Effects of economic and social transitions on personal and social values as reflected in the dramatizations of contemporary events.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	391	Modern Southeast Asia	Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Singapore, Brunei, Indonesia, and Philippines since 1750: imperialism, revolution, and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
HST	405	Colonial American History to 1763	Political, economic, social, and cultural history of the colonial era. Concentrates on English colonies, with some consideration of Spanish, French, and other colonial regions in North America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	406	American Revolution/1763-1789	Causes, course, and consequences of the American Revolution culminating in the ratification of the Constitution.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	407	Early U.S. Republic/1789-1850	Political, social, economic, and cultural development of the United States from the Revolution to 1850.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	408	Civil War and Reconstruction	Explores the causes, conduct, and consequences of the American Civil War, concentrating on the years 1848 to 1877.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	409	Emergence Modern U.S. 1877-1918	Triumph of modern political, social, and economic structures and values, 1877-1918; role of region, religion, race, and ethnicity.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	410	Modern U.S., 1918 to 1945	1920s boom and the crash, the Depression and the New Deal response. The Second World War at home and abroad.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	411	Postwar U.S., 1945-1973	Cold War, prosperity, reform, and immense social and political change in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	412	Contemporary U.S., 1973- Present	End of the Cold War, political crises, and cultural transformations in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	414	The Modern U.S. Economy	Origins of 19th-century slavery and industrialization; 20th-century crisis and regulation: political economy of an advanced capitalist democracy.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	415	Unequal Sisters/Women-Pol/Cult	Examines race, ethnic, and class differences among women, focusing on the political and cultural experiences of women in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H & C	
HST	417	Topics in Mexican American History	Focuses on specific topics in Mexican American history including immigration, civil rights, the Chicano Movement, union activism, and regional and generational differences.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	423	The Tudor Monarchy	Political, cultural, and social foundations of 16th-century England.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	424	Stuart Transform of England	Political, social, economic, and cultural developments in 17th-century England.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	426	The British Empire	British imperialism and colonialism in Africa, the Americas, Asia, and the South Pacific.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	427	French Revolution/Napoleonic Era	Conditions in Pre-Revolutionary and Revolutionary France; organization of France under Napoleon and impact of French changes upon Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	

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HST	428	Modern France	Social, political, economic, and cultural transformations of French society, 1815-present. Impact of industrialization, war, and revolution on people's lives.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	429	Modern Germany	Germany since 1871.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	430	Hitler: Man and Legend	Biographical approach to the German Third Reich emphasizing nature of Nazi regime, sociocultural issues, World War II, and historiography.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	431	Eastern Europe and the Balkans, Pre-1914	Empire and nation in Eastern Europe and the Balkans before World War I, emphasizing Hapsburg and Ottoman lands.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	432	East Euro/ the Balkans-20 Cent	Politics and culture in Eastern Europe and the Balkans from World War I to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	435	The Russian Empire	Development of Russian imperial institutions and civil society from the 17th to the early 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	436	The Soviet Experiment	Communist revolutionaries' rule of Russia, focusing on utopian culture, Stalinist terror, heroism in war, and the breakup of the former USSR.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	437	Spain through the Golden Age	Cultural, economic, political, and social development of Spain from antiquity to the late 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	438	Modern Spain	Cultural, economic, political, and social development of modern Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G & H	
HST	443	The United States & Latin America	Latin American struggle for diplomatic recognition, attempts at political union, participation in international organizations since 1810, and relations between the United States and Latin America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	445	20th-Century Cuba	History of Cuba from colonial era to formation of the early republic; political, economic, social development in late 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	446	Colonial Mexico	Political, economic, social, and cultural developments from pre-Columbian times to 1810.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	447	Modern Mexico	Political, economic, social, and cultural developments from 1810 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	451	Chinese Cultural History	China's classics in translation studied both for their intrinsic ideas and for the origins of Chinese thought.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	452	Chinese Cultural History	Evolution of Confucian thought, its synthesis with Taoism and Buddhism, and modern reactions against, and uses of, Confucian traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	453	The People's Republic of China	Analyzes major political, social, economic, and intellectual trends in China since the founding of the People's Republic in 1949.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	455	The United States and Japan	Cultural, political, and economic relations in the 19th and 20th centuries. Emphasizes post-World War II period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	456	The Vietnam War	Intersection of American and Asian histories in Vietnam, viewed from as many sides as possible.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	480	Methods of Teaching History: Classroom Resources	Methods in instruction, organization, and presentation of the subject matter of history and closely allied fields.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must have completed either SED 403 or SED 598 with a grade of C or greater or be currently enrolled
HST	481	Methods of Teaching History: Community Resources	Identify community-based resources for teaching history, work with resources, and learn how to integrate them into the secondary classroom.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must have completed either SED 403 or SED 598 with a grade of C or greater or be currently enrolled
HST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		Pre-requisites: Must be an Honors student

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HST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6	L	Pre-requisites: Must be an Honors student
HST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
HST	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		
HST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-7	L	Pre-requisites: HST 194 completed or HIS 300, HST 300 or HST 200 with a C or better or currently enrolled; History student with senior standing or Education-History student with greater than 75 earned hours
HST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		
HST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	502	Public History Methodology	Introduces historical research methodologies, techniques, and strategies used by public historians. Readings, short papers, and guest speakers. Required for students in the public history concentration.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	511	History of Science	Teaches crucial skills needed for graduate-level research in history of science, including (1) critical analysis of primary sources from different periods in the history of science and (2) critical analysis and familiarity with important trends in the secondary literature ("historiography of science").	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	512	West Civil to the Enlightenmnt	Systematically examines various interpretations of Western civilization from the ancient Middle Eastern civilizations to the European Enlightenment.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	514	Historians of the U.S.	Study of the history of American historical writing from the early colonial days to the 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	515	Studies in Historiography	Methods and theories of writers of history.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	516	History of Biology	Covers themes such as the voyages of discovery, systematics, and classification; morphology and embryology; Darwin and evolutionary biology; the rise of genetics; molecular and organismal approaches of post-WWII biology; recent history of biology.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	525	Historical Resource Management	Identification, documentation, and interpretation of historic period buildings, sites, and districts. Emphasizes interdisciplinary efforts among historians, architects, and anthropologists.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	526	Historians and Preservation	Preparation of historians for public and private historic preservation programs.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	527	Historical Administration	Preparation of historians in administration of archives and historical sites, museums, societies, and offices in government agencies.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	532	Community History	Techniques and methods of community history emphasizing local resources. Required for community history option.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	551	Comparative Histories--War and Revolution	Comparative field course of the themes of war and revolution.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be MA or PHD student in History.
HST	554	Population-Ethnicity/Econ/Migr	Comparative course that explores the impact of social, cultural, or economic changes in the population.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be MA or PHD student in History.
HST	555	Comparative Historical Topics	Analyzes a variety of specific social, political, cultural, and intellectual topics.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student

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HST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		Pre-requisite: History MA or PHD student
HST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		Pre-requisite: History MA or PHD student
HST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		Pre-requisite: History MA or PHD student
HST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		Pre-requisite: History MA or PHD student
HST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		

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HST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		Pre-requisite: History MA or PHD student
HST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		Pre-requisite: History MA or PHD student
HST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		Pre-requisite: History MA or PHD student
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	103	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
HST	107	Asian Civilizations	Civilizations of China, Japan, India, and Southeast Asia from the 17th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	203	Historical Themes in Latin America	General introduction to selected themes in Latin American history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	204	Historical Themes in the US	General introduction to selected themes in United States history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	205	Historical Themes in Africa	General introduction to selected themes in African history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HST	210	American Social History	American society from the colonial period to the present. Ethnicity, race, age, and sex as factors in historical experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	300	Historical Inquiry	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU or SB) & H	Pre-requisites: Must be a student in one of the following: Secondary Ed-History, Secondary Ed - Social Stds, History, History (Minor); Must have 45 or greater earned hours; Must have completed either ENG 102 or 105 with a grade of C or greater
HST	313	American Cultural History to 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the nation's colonial and early national periods.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	314	American Cultural History Since 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the age of industrialism to modern U.S.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	315	Political History of the U S	American political history since independence, focusing post-1865. Evaluates major trends in issues, presidential leadership, elections, and state politics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	325	Immigration and Ethnicity in the United States	Origins, historical development, and future of a multiethnic society, 1492 to 2050.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
HST	327	Women in US History 1600 to 1880	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	

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HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	341	U.S. West 19th Century	Social, political, and economic development of the trans-Mississippi West, beginning with the Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	342	US West 20th Century	Role of the western states in U.S. history since 1890 emphasizing politics, the environment, industry and labor, and ethnic minorities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	343	American Southwest	Development of the region from 1848 to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	344	Arizona	Emergence of the state from early times to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	361	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
HST	364	Sex and Society in Modern Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and social changes in modern Europe.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	368	Culture and Imagination in European History	Topics in European cultural and intellectual history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
HST	408	Civil War and Reconstruction	Explores the causes, conduct, and consequences of the American Civil War, concentrating on the years 1848 to 1877.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	456	The Vietnam War	Intersection of American and Asian histories in Vietnam, viewed from as many sides as possible.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
HST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7	L	
HTY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	220	Introduction to Digital Archives	Familiarizes students with the uses and challenges of digital archives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HTY	230	Introduction to Corporate Archives	Covers principles and techniques for creating and managing corporate archives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HTY	246	Introduction to Researching Family History	Introduces research methods in family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HTY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	301	Historical Research Methods	Historical research methods and critical inquiry. Required for all History and Culture majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	Pre-requisites:Must be in a History program;must have completed 45 hours or more;completed with a C or better either ENG 102, 105, 108, or ENG 112
HTY	310	History of Technology	Examines the history of technology within social, cultural, political, and economic contexts and the critical relationship between society and technology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	H	
HTY	312	History of Science	Examines the beginnings of modern science and traces its development and impact to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	314	History of Computing	Examines the history of computing, including the development of computing devices, and the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	316	History of Engineering	The history of engineering from the earliest record to modern times, examining the social, cultural, and economic effects on society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & G	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	320	History of American Agriculture	Overview of the history of agriculture in America from pre-contact to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	325	History of American Business	The history of American business, including its evolution, structure, and values.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108, or ENG 112 with a grade of C or better
HTY	326	History of Landscape Design	Examines the history of design traditions and landscaping from the ancient world to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisites:ENG 102, ENG 105, or ENG 108 with a grade of C or better
HTY	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102,ENG 105, ENG 108, or ENG 112, with a C or better
HTY	330	History of Printing and Media	Examines the history of printing, books, and the development of modern forms of media.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	334	Archival Preservation and Digital Media	Covers the preservation of digital archival data.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:HTY 220, or HTY 230 with a grade of C or better
HTY	336	Editing Historical Documents	Covers the principles and techniques for editing historical document collections.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108, or ENG 112, with a grade of C or better, and HST 300 or HTY 301 with a C or better
HTY	340	Exploration and Science	Examines connections between science and exploration in the encounter between Europeans, Asians, Africans, and Americans, circa 1400-1700.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	346	Intermediate Family History Research	How to locate records, analyze and interpret evidence, and write a family history narrative.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENH 246 or HTY 246 with a C or better or currently enrolled
HTY	350	Environmental History	Examines the interaction between humans and the natural world in the United States from the late 19th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	360	Women and Science	Examines the role of women in the sciences, focusing on their achievements, challenges, barriers, and persistence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	365	Latin American Independence	History of independence movements throughout the Western hemisphere from the late 18th century until the mid-19th century.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G & H	Pre-requisite: ENG 102, 105, 108 or 112 with C or better
HTY	370	History of Collecting	Historic overview of the practice of collecting art, artifacts, specimens, memorabilia. Includes classification and display systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	374	Western Rivers	Examines the relation between rivers, culture, and environment in the American West.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better

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HTY	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	410	Historic Preservation	Major topics of historic preservation, such as legislation, education. Includes principles of preservation and interpretation of artifacts and structures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, ENG 105, ENG108, or ENG 112 with a C or better; AND HST 300 with a C or better
HTY	430	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 530, may not enroll in HTY 430
HTY	435	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 535, may not enroll in HTY 435
HTY	440	The Premodern City	The development of urban centers from ancient times to the Industrial Revolution or 18th century.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	450	History of Ecology and Conservation	Examines the historical development of ecology and conservation movements in the United States and the world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	460	Mexican/U.S. Border	Analyzes the evolution of the Mexican/U.S. border region from the mid-19th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, ENG 105, ENG108, or ENG 112 with a C or better
HTY	462	Mexican Immigration to the U.S.	Assesses the evolution of immigration and emigration public policy since the mid-19th century. Seeks to contextualize the relationship between immigration and other elemental nation-state issues as the economy, education, identify, and civil rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H & C	Pre-requisite: ENG 102, 105, 108 or 112 with C or better
HTY	464	Postmodern Mexico	Challenges historical myths about the evolution of the nation state and calls into question that globalization and transnationalism are only recent phenomena of the postmodern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G & H	Pre-requisite: ENG 102, 105, 108 or 112 with C or better
HTY	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
HTY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HTY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		Pre-requisites: HTY 301 with C or better or currently enrolled; Senior academic level
HTY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
HTY	530	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 430, may not enroll in HTY 530
HTY	535	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 435, may not enroll in HTY 535
HUD	161	Graphic Communication	Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Development student
HUD	201	Introduction to Housing and Urban Development	Perspectives and issues concerning HUD. Guest lectures by interdisciplinary faculty and private, public, and non-profit practitioners.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	301	Housing and Community Design and Development	Single- and multifamily housing, residential neighborhoods, and planned communities. Affordability in owner-occupied and rental housing. First-time, move-up, and adult markets.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	302	Housing Production Process	Development feasibility analysis, finance, contracts, land acquisition, community and permit presentation and negotiation, scheduling, cost control, marketing, and sales.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	361	Housing and Urban Development Studio I: Residential Design and Development	Affordable residential design, development, and production process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; Passed Milestone; Co-requisites: HUD 301; HUD 363
HUD	362	Housing and Urban Development Studio II: Community Design and Development	Neighborhood and new community design and development process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; HUD 361 with C or better; Co-requisite: HUD 302; HUD 364; HUD 403
HUD	363	Housing and Urban Development Seminar I: Residential Design and Development	Affordable residential design, development, and production process.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; Co-requisites: HUD 301; HUD 361

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HUD	364	Housing and Urban Development Seminar II: Community Design and Development	Neighborhood and new community design and development process.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; Co-requisites: HUD 302; HUD 362; HUD 403
HUD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
HUD	401	Assisted Housing	Publicly subsidized and nonprofit housing. Policy, implementation, and administration. FHA, Section 8, FmHA, projects and scatter site, and tax considerations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Junior Standing
HUD	402	Community Revitalization: Problems and Strategies	Public policy and strategies for neighborhood revitalization and community renewal. Preservation and adaptive reuse, gentrification, neighborhood safety, and related socioeconomic concerns.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Junior Standing
HUD	403	Advanced Topics in Housing and Urban Development	Varying topics, such as manufactured housing, homelessness, mortgage and finance in housing, housing abroad, marketing housing, and sustainable community development.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Junior Standing
HUD	461	Housing and Urban Development Studio III	Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction, cost management, and marketing.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; HUD 362 with C or better; Co-requisites: HUD 401; HUD 463
HUD	462	Housing and Urban Development Studio IV: Neighborhood Revitalization Process	Housing rehabilitation, neighborhood revitalization, and urban infill. CDBG, empowerment-enterprise zoning, code enforcement, citizen participation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; HUD 461 with C or better; Co-requisites: HUD 402; HUD 464
HUD	463	Housing/Urban Dev Seminar III	Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction and cost management, and marketing.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; HUD 302 and HUD 364 with C or better; Co-requisites: HUD 401; HUD 461
HUD	464	Housing and Urban Development Seminar IV: Neighborhood Revitalization Process	Housing rehabilitation, neighborhood revitalization, and urban infill. CDBG, empowerment-enterprise zoning, code enforcement, citizen participation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; Co-requisites: HUD 402; HUD 462
HUD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Housing & Urban Developmnt BSD student
HUD	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
HUD	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
HUD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
HUD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
HUM	502	Writing Cultures	Theories and methods of representing Western and non-Western cultures in literature, history, ethnography, and pictorial media.	N	LEC	N	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		
HUM	503	Research and Writing in the Humanities	Systematic training in humanistic research and writing with particular attention to the interdisciplinary study of culture.	N	SEM	N	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	513	Interpretation of Cultures	Methodologies and comparative theories for the study of relationships among various aspects of culture, the history of ideas, and the arts. May be repeated for a total of 6 semester hours when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		Pre-requisite: Must be a Graduate student.
HUM	530	Pop Culture America		Y	LEC	Y	CNV	Liberal Arts and Sciences	Division of Humanities T	3.		
HUM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)

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HUM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Division of Humanities T	1.		
HUM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	413	Comedy: Meaning and Form		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IA	102	Wood Turning		Y	LEC	Y	CNV	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
IAP	101	Art, Artist, and Culture	Provides an approach to art, creativity, and culture in global, historical, and contemporary contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAP	102	Foundations I: Performance Techniques and Composition	Focuses on practice-based studies of contemporary presentational strategies and techniques.	N	STO	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	103	Foundations I: Interdisciplinary Digital Media	Digital media studies and application of contemporary artists, processes, and presentation practices in interdisciplinary arts.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	104	Foundations I: Fundamentals of Sound Art	Investigates late 20th- and 21st-century sound art and our relationship with it.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	105	Foundations I: Fundamentals of Interdisciplinary Art	Focuses on contemporary aesthetic concepts and language for interdisciplinary arts application.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	CS	
IAP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	201	Introduction to Interdisciplinary Arts	Considers interdisciplinarity in practical terms in all art forms. Also considers antecedents and cross-cultural issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAP	202	Perspectives on Interdisciplinary Arts and Performance	Social, cultural, and historical examination of interdisciplinary art and performance and a survey of current interdisciplinary work and approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: Must have completed IAP 201 with a D or better
IAP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	301	Energetic Systems of Art: Collaboration in the Arts	Identifies and explores the energetic systems at work in the creation, performance, and perception of art.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	302	Cross-Cultural Perspectives on the Arts	Social and cultural perspectives of art and performance through a survey of historical and contemporary attitudes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	303	Artists and the Contemporary American Experience	Explores the life of the contemporary American artist with respect to individuality, pluralism, gender, race, ethnicity, and regionalism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	304	Traditions of the Avant-Garde and Experimental Art	Surveys 20th-century art movements and isms, including futurism, dada, surrealism, constructivism, realism, the Bauhaus, abstract expressionism, minimalism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	305	20th and 21st Century Art, Performance, and Media	Surveys artists, movements, and trends in the arts with an emphasis on interdisciplinary performance, media, and technology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	306	Extended Traditions in Drawing	Explores alternative methods of rendering the drawn image. Emphasizes incorporating other art forms to inform students' individual work.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	307	Art and War	Global interdisciplinary survey of the range of work created by artists in response to war, through time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
IAP	310	Women in Art	Cultural, historical, and social issues relating to the seeming scarcity of women artists and changing social contexts for women artists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	321	Music Composition I	Study and implementation of specific compositional theories and procedures. May be repeated for credit when topics vary. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must be in Plan ASIAPBA
IAP	322	Multitrack Digital Recording	Introduces students to theory and practice of Musical Instrument Digital Interface (MIDI) technology.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Pan ASIAPBA

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IAP	323	Music and the Visual Arts	Histories and theories of music and visual arts with emphasis on convergences within 20th-century avant-garde traditions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	324	The Voice and Performance	Involves all aspects of the human voice, including research, creation, and performance.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	325	Sound Performance: Exploring Alternative Performance Groups	Utilizes innovative sound ensembles to explore all aspects of sound and its place in various art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	331	Performance, Acting, and the Individual	Explores the concepts of the self, the subject, and the author as each pertains to the solo artist.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	332	Technical Production for Interdisciplinary Arts	Develops basic technical knowledge and application of fundamental stagecraft techniques used in the creation and presentation of performance works. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	333	Directing for Performance	Explores various strategies for performance. Emphasizes nontraditional staging and performance.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	334	Conceptual Development in the Arts	Conceptual development processes in the arts from initial idea to formal project proposals, grants, and production plans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Interdisciplinary Arts and Performance student
IAP	335	Vocalization and Movement	Study, application, and coordination of vocal projection techniques with bodily movement competencies in presenting original and existing contemporary performance works.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	347	Movement in Education	Theory and practice of teaching dance and creative movement in schools, K-12. Open to all students.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	351	Concept, Image, and Text	The generation of images and metaphors using various media and visual stimuli.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	352	Seeing and Drawing	Develops drawing and seeing skills that are important not only to visual arts but also to music, dance, and theatre.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	354	Visual Representation	Explores materials, processes, and aesthetic concepts of art making through various media with readings on cultural perspectives and contemporary theory.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Interdisciplinary Arts and Performance student
IAP	355	Illusion and Vision	Inquiry into 2-D surfaces for visual representation and personal expression; includes readings on color theory, visual perception, and historical/cultural patterns.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	356	Spatial Impressions	Investigates 3-D forms, the processes and concepts of physicality, and the environment with readings on spatial perception and cultural objects. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN ASIAPBA
IAP	360	IAP Laboratory	Provides instructor-student contact time focusing on the technical instruction of media and technology applications.	Y	LAB	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		
IAP	361	Digital Editing and Media Literacy	Investigates the approaches used in digital editing with a focus on interactivity, graphics, audio, and desktop video. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	CS	Pre-requisites: must be in PLAN ASIAPBA, or ASACOBS
IAP	363	Sound, Image, and Media	Interdisciplinary arts projects for experimental approaches to relating sound and visual image, accompanied by survey of historical and contemporary material. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	364	Documentaries	Media arts projects exploring new and experimental forms of visualization based upon an interdisciplinary survey of historical and contemporary examples. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN ASIAPBA
IAP	365	Digital Interactivity	Combines graphics, video, and animation with digital authoring tools for creation of interactive multimedia Web sites. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan: ASIAPBA OR Plan: ASACOBS
IAP	368	Digital Graphic Technologies	Employs technology used in contemporary graphic designs to design concepts and techniques for modeling and representation applications.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	371	Verbal Art	Examines varieties of verbal art in everyday life, literature, oral and literate cultures. Considers diverse cultural forms and values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	373	The Critical Artist	Focuses on artists' critical thought, theorizing, and representation of art across disciplines and genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	421	Composition: Process, Technique, and Style II	Advanced study of specific compositional theories and procedures; in-depth analysis of individual work. Fee.	N	LEL	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN: ASIAPBA
IAP	422	Contemporary Orchestration Practices	Traditional and experimental scoring techniques for small and large ensembles using MIDI technology, digital samplers, and traditional instruments. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	431	Perspectives on Performance and Acting	Focuses on the interaction of the performer with media, alternative stagings, and collaboration with other performers.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN: ASIAPBA
IAP	433	Directing Workshop	Applies experimental directorial techniques to presentations and deconstruction of classical works including European and cross-cultural traditions.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	434	Production Laboratory	Develops original scripts into showcase productions. Students function as theatrical ensemble, participate in all phases of performance and production values. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA

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IAP	441	Movement for Performance	Explores the relationship of movement as it relates to performance, both historically and cross-culturally.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN:ASIAPBA
IAP	442	Movement and Music	Surveys ways artists have brought together movement and music in artistic creations in various disciplinary and interdisciplinary contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	452	Elements of Painting	Develops painting skills and personal artistic vision through projects stimulated by other art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	454	New Directions in Painting	Develops painting skills and personal artistic vision through projects stimulated by other art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	457	Urban Narrative	Conceptually based studio focusing on artists' voices in contemporary urban environment with readings on spatial perception and cultural objects. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	464	Media and Diversity	Interdisciplinary art projects exploring identity, perception, and technologies from a basis of class, race, ethnicity, gender, sexuality, and ecology.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	465	Media Technologies and the Arts	Practical explorations of media arts interrelated with cultures, society, and technology, addressed through readings, discussion, research, and student arts projects.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	466	Digital Interactivity, Advanced	Advanced multimedia authoring skills for creation of interactive works in DVD, CD ROM, and other media formats. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN:ASIAPBA OR PLAN:ASACOBBS
IAP	467	Acoustic Ecology	Investigations into the relationship between audio art and ecology; covers field recording, oral histories, digital editing, and designing audio Web site and databases. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	468	Digital Graphic Applications	Targeting, planning, design, authoring, development, and presentation of professional digital media graphics for Internet and print.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN:ASIAPBA OR PLAN:ASACOBBS
IAP	469	Advanced Audio Production	Engages advanced media students in the technical, logistical, and aesthetic concerns specific to audio in all forms of digital media. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	471	Language, Culture, and Performance	In-depth examination of language in myth, poetry, social and aesthetic performance genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	472	Theories of Arts and Performance	Key texts, thinkers, concepts, and approaches to the arts and performance.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	473	Aesthetic Research	Investigates how artists, in all disciplines and from different historical periods, conduct or participate in research.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	474	Art and Film	Focuses on film as an art form in relation to the arts through aesthetics, cinematic theory, period study.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	480	Senior Project	Capstone course. Students develop an exit project for the IAP degree under the guidance of an advisor. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3-6		
IAP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAP	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAP	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
IAP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
IAP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	220	Psychology, Multicultural Narratives, and Religion	Examines contemporary multicultural life narratives that explore diversity in America and the authors' constructions of psychological identity and religious values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: ENG 101 or 105 with C or better
IAS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		

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IAS	300	Adult Career Development	Analysis of sociological and economic factors of 21st-century work environments, integrated with a psychological understanding of adult development. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or SB	Pre-requisites: ENG 101 or 105 with C of better or Applied Science student
IAS	305	Work and Identity	Explores the relationship between work and identity, as well as the search for meaning in work across generations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
IAS	310	Women in Art	Cultural, historical, and social issues relating to the seeming scarcity of women artists and changing social contexts for women artists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater, or be currently enrolled, or co-enrolled with IAS310.
IAS	324	Existential Ethics	Ethical aspects of theistic and atheistic accounts of existentialist philosophy. Freedom and responsibility and their significance in human experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	340	Bioethics	Philosophical exploration of ethical issues in healthcare delivery and the life sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	401	Sacred Scriptures and Social Choices	Examines relationships among contemporary moral issues and the sacred scriptures to support choices at individual, group, and public levels.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
IAS	406	Moral Dilemmas	Philosophical analysis of moral dilemmas arising in professional and public settings. Ethical decision making in business, educational, human service, and scientific communities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better. Credit is allowed for only IAS 406 or PHI 406
IAS	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
IAS	408	Feminist Ethics	Philosophical exploration of the theoretical and practical aspects of ethical issues affecting women from diverse feminist viewpoints.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	409	Eco-Community Ethics	Traces human interaction with the Earth from hunters and gatherers to the present day, examining groups who have lived within ecological constraints and limits.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	410	Evolution of Ideas	Investigates ideas (paradigms) and revolutions (paradigm shifts). Examines several topics from perspectives of science, arts, humanities, social sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better
IAS	411	History and Philosophy of Mathematics	Examines nature of mathematics from origins to present, revealed by its history and philosophy. Strong background in mathematics not required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	Credit is allowed for only IAS 411 or MAT 411
IAS	415	Life in the Universe	Examines the search for life in extreme environments on Earth and in remote locations beyond Earth.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAS	416	Black Holes and Beyond	Explores developments in understanding nature's most basic force-gravity-from Aristotelian concepts to modern theories of curved space-time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAS	420	Multicultural Autobiographies	Examines the human experience via autobiographies and personal narratives. Multicultural, literary, and psychological perspectives on individual lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: ENG 101 or 105 with C or better
IAS	430	Science and Religion	Examines evolving relationships between scientific thought and Western and Eastern religious thought. Explores cosmologies, worldviews, and epistemologies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
IAS	477	World Literature	Introduces world literature, mostly outside the United States and England.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisite: ENG 101 or 105 with C or better
IAS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
IAS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
IAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		

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IBC	604	Clinical Medicine/Pathophysiology	Overview of each of the main systems within the human body. Addresses the major diseases (symptoms, diagnosis, and medical treatments) within each system. Students learn appropriate medical terminology for symptoms, diseases, treatments, and medical tests so they can communicate effectively with medical practitioners (nurses and physicians). Content is equivalent to pathophysiology training in an RN program. Also addresses the role of behavioral care providers in medical settings; design and implementation of psychoeducational programs in primary care; stress management techniques for use in medical settings; chronic pain management; identification and treatment of somatization disorder; increasing compliance in noncompliant patients; alternative/complementary medicine; overview of nutrition; and the effects of exercise and nutrition on prevention and treatment of diseases.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
IBC	704	Evidence-based Behavioral Interventions I: Core Skills	Covers the basic principles of the Biodyne Model, which are applicable to all behavioral health cases, both in outpatient mental health settings and in integrated care settings. Core knowledge forms the basis for success as a behavioral care provider in integrated medical settings. Includes common psychotherapist mistakes, evidence-based treatment, basics of the Biodyne Model, survey of integrated care approaches, defense mechanisms, case conceptualization strategies for maximum efficiency, and when to refer a patient for specialty care. Presents in detail common conditions (anxiety and depression), with a focus on how these conditions can be subcategorized for maximum treatment efficiency. Emphasizes the development of comprehensive treatment plans (including psychotropic medications, group programs, and other modalities). Presents didactic material in the context of actual cases. Strong focus on case examples, both illustrative cases provided by the instructor and the students' cases (past and/or current).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	712	Population-Based Behavioral Health Management	Overview epidemiology for health care followed by population-based approaches to behavioral intervention. Epidemiology includes concept of populations; descriptions and definitions of health and disease; measurement of health (measures, morbidity, mortality and health); designs for studying the health of populations and standardization of population health measures. Population-based management includes definitions of medical management; planning health care for populations and population health outcomes; quality of care and economic analysis of population-based interventions; adjunctive treatments as a core component of population-based interventions. Also, advanced application of population-based behavioral interventions with a focus on design, measures, analysis, results and discussion of current approaches. Includes predictive modeling methods for defining populations; interventions focusing on stepped-care approaches; engagement strategies, interventions, measurement, and follow-up.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	718	Healthcare Systems: Organization, Delivery and Economics	Provides an overview of the U.S. healthcare system with a focus on economics and policy. Primary goals of the course are to enable students to recognize the relevance of economics to healthcare and to apply economic principles to better understand health-related issues; understand the U.S. healthcare delivery system in the context of social, policy, and economic factors; evaluate the evolving nature of healthcare reform initiatives and their implications for clinical practice, financing, research and policy; analyze public healthcare policy from an economic perspective. Students also focus on behavioral healthcare economics and policy and the economics of behavioral health services in medical settings. Students also understand the medical cost offset effect, including economic benefits of behavioral interventions for co-morbid medical and behavioral conditions, measurement of medical cost-offset, and cost-offset for psychopharmacology and specific behavioral conditions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		

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IBS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey MBA program students
IBS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey MBA program students
IDN	101	Elementary Indonesian I	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
IDN	102	Elementary Indonesian II	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites: IDN 101 with C or better
IDN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
IDN	201	Intermediate Indonesian I	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: IDN 102 with C or better
IDN	202	Intermediate Indonesian II	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: IDN 201 with C or better
IDN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
IDN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
IDN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
IDN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
IED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
IED	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	401	Navajo Language and Culture I	History and culture are added components to the introduction of language reading, writing, and speaking. Emphasizes basic communication and appreciation of history and culture.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	403	Navajo Language and Culture II	Emphasizes communication, grammar, and sentence structures. Translations, reading, writing, and discussions of proper and slang language. Includes cultural activities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	410	History American Indian Educ	Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. Credit is allowed for only IED 410 or 510.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	SB & H & C	Pre-requisites: Students who have credit for IED 510, may not enroll in IED 410
IED	430	Lang/Literacy-Indig Peoples	Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective. Credit is allowed for only IED 430 or 530.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	(HU or SB) & C	
IED	433	Counseling the Indian Student	Techniques and methods used in counseling, with emphasis on understanding Indian cultures and values. Experimentation with new counseling concepts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	444	Govt Role-Native Ed Pol/Adm	Examines the interrelationship of federal Indian policy, federal/state/tribal law, and tribal sovereignty as they have shaped American Indian education. Analyzes administrative practices and personnel, program and fiscal management, and resources as they reflect the historic and present influence of this triad of factors. Credit is allowed for only IED 444 or 544.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	SB	
IED	460	Yaqui History and Culture	Yaqui history and culture ranging from precontact to the present. Larger themes of Yaqui identity, belief systems, family, traditions, community, resistance, dispersion, and survival.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	(HU or SB) & C & H	
IED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		

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IED	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
IED	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6	L	Pre-requisites: Must be an Honors student
IED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	497	Honors Colloquium		Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
IED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-7		
IED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
IED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	510	History of American Indian Education	Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. Credit is allowed for only IED 510 or 410.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student. Students who have credit for IED 410, may not enroll in IED 510
IED	530	Language/Literacy-Indig People	Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective. Credit is allowed for only IED 530 or 430.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
IED	544	Govt Role-Native Ed Pol/Adm	Examines American Indian education and how it is impacted by the interrelationship of federal Indian policy, federal/state/tribal law, and tribal sovereignty. Credit is allowed for IED 544 or 444.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
IED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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IED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
IED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	407	Dine Education Philosophy	Assists preservice teachers in integrating Navajo educational philosophy Sá'ah Naaghái Bik'eh Hózhóon into educational instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.	HU & C	
IED	413	Lang Arts-Methods/Mgmt/ Assess	Theory and practice on the social nature of oral and written language and the development of appropriate classroom practices for indigenous students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	414	Rdg Meth/Mgmt/Asmt-Indig Clsrm	Development of reading and phonics instruction, management, and assessment methods necessary for successful literacy development for indigenous students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	420	Science Methods, Management, and Assessment for Indigenous Classrooms	Develops and applies elementary science lessons accommodating multiple world views, including those of Native societies. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	422	Methods/Teach Indian Students	Philosophies, methodologies, and materials used in Indian education. Examines local and tribal classroom materials. Experimentation with new teaching concepts.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
IED	425	Methods of Teaching Navajo to Nonnative Speakers	Methods for teaching Navajo language immersion instruction in K-8 settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		Pre-requisites: Dine Teacher Education ITC admission.
IED	427	Meth Teach Navajo-Native Spkrs	Methods for teaching Navajo language immersion instruction in K-8 settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		
IED	455	Soc St Meth/Mgt/Asmt-Indig Cls	Examines methods, classroom management, and assessment for elementary social studies instruction for indigenous learners, while incorporating language and culture.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
IED	480	Math Meth/Mgt/Asmt-Indig Clsrm	Develops and applies elementary mathematics lessons incorporating learning styles and cultural perspectives.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IED	496	Field Experience: Classroom Management and Organization	Applies course content in indigenous classrooms. Emphasizes observation, management, and planning and delivering instruction. May be repeated for credit. fee	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		
IEE	100	Introduction to Engineering Design	Introduces industrial engineering design; teaming, the profession of engineering, computer models in engineering communication skills; quality and customer satisfaction. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	2.		Pre-requisites: Freshman or Sophomore standing
IEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-3		
IEE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		
IEE	210	Introduction to Industrial Engineering	History of IE: IE career paths; ethical, social, and contemporary issues; introduces IE techniques, methods, and their application; case studies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: IEE 100 with C or better; MAT 265 (or MAT 270) with C or better
IEE	220	Business/Industrial Engr	Introduces business for industrial engineers, including business/financial structures, fundamentals of cost and accounting, role of business/engineering in society.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be a Pre-professional, BS or BSE student in the Ira A. Fulton College of Engineering AND earn a grade of C or better in CHE 100, IEE 100 or MSE 100 OR a grade of D or better in ECE 100; Must be sophomore status or higher
IEE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		
IEE	300	Economic Analysis for Engineers	Economic evaluation of alternatives for engineering decisions, emphasizing the time value of money.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Prerequisites: FSE BS/BSE OR Non Engrn with a min GPA of 3.00; MAT 265, 270 or 290 with a D or greater or currently enrolled; BME 100, CEE 100, CHE 100, CSE 101, ECE 100, EEE 101, IEE 100, MAE 100 or MSE 100 with a D or greater or be currently enrolled
IEE	305	Information Systems Engineering	Overview of computer and information systems applications. Topics include client/server; distributed computing; networks; process modeling; e-commerce; enterprise applications; Internet. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	CS	Pre-requisites: CSE 200 or 205 completed with a D or better or currently enrolled; Must either be an Engineering BS/BSE student or must be a Non-Engineering students with a minimum GPA of 3.00

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IEE	368	Facilities Analysis and Design	Planning, analysis, and design of the tangible physical assets of the firm. Emphasizes facilities location, materials handling, automation, computer integration, and utilization of financial resources. Applications in diverse fields. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	L	Pre-requisites: IEE 300 completed with a grade of D or better or currently enrolled; Must be either an Engineering BS/BSE student or a Non-Engineering student with a minimum GPA of 3.00.
IEE	369	Work Analysis and Design	Planning, analysis, and design of methods of accomplishing work. Emphasizes human factors, work planning, methods analysis and design, and work measurement. Applications in diverse fields. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	L	Pre-requisites: Engineering BS/BSE students only and a grade of D or better or currently enrolled in IEE 300.
IEE	376	Operations Research Deterministic Techniques/Applications	Industrial systems applications with deterministic operations research techniques. Resource allocation, product mix, production, transportation, task assignment, networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: CSE 200 or CSE 205; MAT 242, 342, or 343
IEE	380	Probability and Statistics for Engineering Problem Solving	Applications-oriented course with computer-based experience using statistical software for formulating and solving engineering problems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	CS	Pre-requisites: Engineering student; MAT 266 or 271 with C or better
IEE	385	Engr Statistics - Probability	Designing statistical studies for solutions to engineering problems. Methods include regression, design and analysis of experiments, and other statistical topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering BS/BSE/MS/MSE/PHD student; IEE 380 with C or better or ECE 380 with D or better
IEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		
IEE	405	Developing Information Systems Applications	Analysis and design of distributed information system applications using object and relational architectures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering BS or BSE student
IEE	431	Engineering Administration	Introduces quantitative and qualitative approaches to management functions, engineering administration, organizational analysis, decision making, and communication. Credit is allowed for only IEE 431 or 541.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be a senior Engineering BS/BSE student.
IEE	437	Human Factors Engineering	Studies the human psychological and physiological factors that underlie the design of equipment and the interaction between people and machines. Credit is allowed for only IEE 437 or 547.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering BS/BSE students OR Non Engineering students with a minimum GPA of 3.0
IEE	461	Production Control	Techniques for the planning, control, and evaluation of production systems. Project management, forecasting, inventory control, scheduling, enterprise requirements planning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering BS/BSE student AND have completed with a D or better IEE 376 or IEE 476 AND have completed ASE485, IEE 385 or IEE 485 with a grade of D or better AND have completed CSE 100 or CSE 110 with a grade of D or better.
IEE	463	Computer-Aided Manufacturing and Control	Computer control in manufacturing, CIM, NC, logic controllers, group technology, process planning, and robotics. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	CS	Pre-requisites: Must be an Engineering BS/BSE student with Junior or Senior standing
IEE	470	Stochastic Operations Research	Modeling and analysis with emphasis on stochastic operations research. Models for stochastic processes, including Markov chains, queueing and decision analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Industrial Engineering BSE student; IEE 376 completed with a C or better or currently enrolled; IEE 385 completed with a C or better or currently enrolled
IEE	474	Quality Control	Basic statistical process control techniques, capability analysis, design of experiments, and acceptance sampling plans.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Industrial Engineering BSE student and a grade of D or better in ASE 485, IEE 385 or IEE 485.
IEE	475	Simulating Stochastic Systems	Analyzes stochastic systems using basic queueing networks and discrete event simulation. Basic network modeling, shared resources, routing, assembly logic. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	CS	
IEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	490	Project in Design and Development	Individual or team capstone project in creative design and synthesis. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	L	Pre-requisites: Must be a senior Engineering BS/BSE student and have completed IEE 475 or be currently enrolled AND have completed with a grade of D or better IEE 376 or IEE 476.
IEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-6		Pre-requisites: Must be an Honors student.
IEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-6	L	Pre-requisites: Must be an Honors student
IEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		
IEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-7		
IEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-3		
IEE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		

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IEE	505	Information Systems Engr	Studies information systems application engineering. Topics include information technology, data modeling, data organization, process mapping, application and database engineering, and user interface development. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	511	Analysis of Decision Processes	Methods of making decisions in complex environments and statistical decision theory; effects of risk, uncertainty, and strategy on engineering and managerial decisions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering graduate student
IEE	512	Introduction to Financial Engineering	Introductory course on financial engineering covering traditional portfolio theory, forwards, futures, financial stochastic models, option pricing, and risk management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	520	Statistical Learning for Data Mining	Surveys data analysis methods for massive data sets and provides experience in analysis with computer software.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	530	Enterprise Modeling	Focuses on social, economic, and technical models of the enterprise with emphasis on the management of technological resources. Includes organization, econometric, financial, and large-scale mathematical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	532	Management of Technology	Topics include designing a technical strategy; technological forecasting; interfacing marketing engineering and manufacturing; designing and managing innovation systems; creativity; application of basic management principles to technology management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	533	Scheduling	Provides the basic theory of scheduling and introduction to the applications domain.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	534	Supply Chain Modeling/Analysis	Techniques for modeling and analysis of supply chains. Inventory management, transportation/location models, value of information, channel alignment, risk pooling, contracts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	535	Intro Intl Logistics Systems	Exploratory project-oriented course that addresses domestic and international logistics practices from a high-level descriptive perspective and an analytical model-based perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	541	Engineering Administration	Introduces quantitative and qualitative approaches to management functions, engineering administration, organizational analysis, decision making, and communication. Credit is allowed for only IEE 541 or 431.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student.
IEE	543	Cmptr-Aided Manufact/Control	Computer control in manufacturing, CIM, NC, logic controllers, group technology, process planning and robotics. Credit is allowed for only IEE 543 or 463.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	545	Simulating Stochastic Systems	Analyzes stochastic systems using basic queuing networks and discrete event simulation. Basic network modeling, shared resources, routing, assembly logic. Credit is allowed for only IEE 545 or 475.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be Engineering graduate student.
IEE	547	Human Factors Engineering	Study of people at work; designing for human performance effectiveness and productivity. Considerations of human physiological and psychological factors. Credit is allowed for only IEE 547 or 437.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	552	Strategic Technological Planning	Studies concepts of strategy, strategy formulation process, and strategic planning methodologies with emphasis on engineering design and manufacturing strategy, complemented with case studies. Presents and uses an analytical executive planning decision support system throughout course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student AND a grade of C or better or co-enrolled in IEE 545, IEE 561, or IEE 574.
IEE	553	Information Systems Assurances	Develops and applies engineering approaches to assuring the security of enterprise information systems, including principles of dependable information systems, technologies for information systems, intrusion detection, system response, and recovery.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Graduate Engineering student; IEE 505 with a C or better
IEE	560	Object-Oriented Info Systems	Applies object-oriented technology and concepts to enterprise information systems. Topics include requirement analysis, object-oriented design and programming, rapid application development, object data management, and development of object-oriented distributed applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student and have a grade of C or better in IEE 505 or be currently enrolled.
IEE	561	Production Systems	Understanding how factories operate, how performance is measured, and how operational changes impact performance metrics. Operational philosophies, increasing production efficiency through quantitative methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	562	Computer-Aided Mfg-CAM Tools	Current topics in automation, distributed control, control code generation, control logic validation, CAM integration, CAD/CAM data structures, planning for control systems. Topics vary by semester.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student and have completed IEE 463 or IEE 543 with a grade of C or better or be currently enrolled.
IEE	563	Distributed Info Systems	Introduces concepts and technologies that form the core of distributed enterprise information systems. Topics include client-server architectures, distributed objects and paradigms, Internet, World Wide Web, distributed information sharing, network programming, and e-commerce and enterprise applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS/MSE/PHD student; IEE 505 with C or better

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IEE	564	Planning -Cmptr-Integrated Mfg	Theory and use of IDEF methodology in planning for flexible manufacturing, robotics, and real-time control. Simulation concepts applied to computer-integrated manufacturing planning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	565	Cmptr-Integrated Mfg Research	Determination and evaluation of research areas in computer-integrated manufacturing, including real-time software, manufacturing information systems, flexible and integrated manufacturing systems, robotics, and computer graphics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student AND a grade of C or better in IEE 564.
IEE	566	Simulation in Manufacturing	Uses simulation in computer-integrated manufacturing with an emphasis on modeling material handling systems. Programming, declarative, and intelligence-based simulation environments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 475 or 545 with C or better
IEE	567	Simulation System Analysis	Simulation modeling of processes involving discrete and continuous system components. Topics include random number generators, output analysis, variance reduction, and statistical issues related to simulation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 475 or 545 with C or better
IEE	570	Advanced Quality Control	Process monitoring with control charts (Shewhart, cusum, EWMA), feedback adjustment and engineering process control, process capability, autocorrelation, selected topics from current literature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	571	Quality Management	Total quality concepts, quality strategies, quality and competitive position, quality costs, vendor relations, the quality manual, and quality in the services.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	572	Design Engineering Experiments	Analysis of variance and experimental design. Topics include strategy of experimentation, factorials, blocking and confounding, fractional factorials, response surfaces, nested and split-plot designs.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering graduate student
IEE	573	Reliability Engineering	Nature of reliability, time to failure densities, series/parallel/standby systems, complex system reliability, Bayesian reliability, and sequential reliability tests.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	574	Appl Deterministic Oper Rsch	Develops advanced techniques in operations research for the solution of complex industrial systems problems. Goal programming, integer programming, heuristic methods, dynamic and nonlinear programming.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Industrial Engineering MS, MSE or PhD student
IEE	575	Appl Stochastic Oper Rsch Mdls	Formulate and solve industrial systems problems with stochastic components using analytical techniques. Convolution, continuous-time Markov chains, queues with batching, priorities, balking, open/closed queuing networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	576	Analy Semiconductor Mfg Oper	Applies operations research and statistical methods to solve problems that involve semiconductor manufacturing operations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	577	Adv Information System Oper	Industrial engineering knowledge and skills for information system operations, including aspects (security, quality of service, user interface, information modeling), problems, and solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 505 with C or better
IEE	578-M	Regression Analysis	Regression model building oriented toward engineers and physical scientists. Topics include linear regression, diagnostics, biased and robust fitting, nonlinear regression.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	579	Time Series Analy/forecasting	Forecasting time series by regression-based, exponential smoothing, and ARIMA model techniques; uses digital computer programs to augment the theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	581	Six Sigma Methodology	The six sigma process improvement strategy of define, measure, analyze, improve, and control (DMAIC). Integrates and deploys statistical methods and other six sigma problem solving via the DMAIC framework. Requires background in design of experiments, statistical quality control, and regression analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	582	Response Surfaces/Process Opt	Classical response surface analysis and designs including steepest ascent, canonical analysis, and multiple responses. Other topics include process robustness studies, robust design, and mixture experiments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD; IEE 572 with C or better
IEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	585	Six Sigma Capstone.	The DMAIC (define, measure, analyze, improve, control) improvement strategy is applied in the formulation and execution of a six sigma project.	N	PRA	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		

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IEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		Pre-requisite: Industrial Engineering MS, MSE or PHD student
IEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1.		
IEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		Pre-requisite: Engineering Graduate student
IEE	599-M	Thesis		Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	620	Optimization I	First course of the PhD-level deterministic course series. Covers foundations of optimization and linear programming. Prior working knowledge of linear algebra and knowledge of how to formulate linear programs is required for this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	670	Mathematical Statistics	Introduction to the field of mathematical statistics at a level intended for first-year PhD students in Industrial Engineering. Builds a solid background in the principles, concepts, and techniques of mathematical statistics. Prepares students for advanced study and research in statistics, and is useful for understanding statistical data analysis techniques and developing statistical thinking. Completion of at least one course in probability and statistics is required prior to taking this class.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	672	Adv Topics-Experimental Design	Multilevel and mixed-level factorials and fractions, design optimality, incomplete blocks, unbalanced designs, random effects and variance components, analysis of covariance.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 572 with C or better
IEE	677	Regression/Genrlz'd Linear Mod	Theory of linear models including least squares, maximum likelihood, likelihood-based inference. Generalized linear models including Poisson and logistic regression, generalized estimating equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 578 with C or better
IEE	679	Time Series Analy/Control	Identification, estimation, diagnostic checking techniques for ARIMA models, transfer functions, multiple time series models for feedback and feedforward control schemes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 579 with C or better
IEE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		Pre-requisite: Industrial Engineering MS, MSE or PHD student
IEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-15		
IEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1.		

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IEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-15		
IMD	564	Multimedia Applications in Instruction	Utilizes various forms of multimedia and authoring software to create materials and instruction. fee	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	566	Assessment and Evaluation of Media Applications	Examines a variety of strategies in assessing learning, collecting and evaluating data, and evaluating technology resources for classroom integration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	574	Organization and Administration of School Library Media	Explores the role of the school library media specialist and program as it relates to the educational community.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	576	Social and Ethical Issues in Educational Media	Examines the social, ethical, legal, and human issues surrounding the use of technology in K-12 schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
IMD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
IMD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
IMD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
IMD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
IMD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
IMD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
IMD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
IMD	572	Media Collection and Development	Explores the identification, selection, acquisition, and evaluation of a collection of library resources for a specific community of users.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
IND	120	Drawing for Industrial Design	Drawing as language to explore and communicate ideas. Development of drawing aptitude as language and process for industrial design thinking.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student
IND	121	Principles for Industrial Design I	Industrial design as a language and process for creative thinking and realization.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student; Co-requisite: IND 122
IND	122	Principles for Industrial Design II	Continued exploration of industrial design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student; IND 120 with C or better; Co-requisite: IND 121
IND	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
IND	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	227	Visual Methods for Problem Solving	Introduces conceptual design activity based on the mind-eye-media feedback loop. Graphic language used to represent conjecture, analysis, synthesis of objects, and their contexts.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student, IND 122 with C or better; Passed Milestone; Co-requisite: IND 260
IND	228	Imaging and Visualization	Design activities stressing graphic language abstraction practiced for presentation. Discusses structure of criticism, including description, interpretation, and evaluation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 227 with C or better; Co-requisite: IND 261
IND	236	Intro Cmptr Model-Indust Dsgn	Computers in industrial design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; Passed Milestone
IND	242	Materials and Design	Materials application in design. Introduces characteristics and properties of metals and organic materials, including plastics, and inorganic materials.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IND	243	Design for Ecology and Social Equity	Explores the role of design in the ecological crisis; materials, processes, strategies and methods to design more ecologically friendly and socially equitable products.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	260	Industrial Design I	Introduces the method and process of the industrial designer. Determinants necessary in small product design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 122 with C or better; Passed Milestone; Co-requisite: IND 227
IND	261	Industrial Design II	Issues of physical form development related to product and design; form development properties of paper, fibers, wood, metal, and plastics.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 260 with C or better; Co-requisite: IND 228
IND	316	20th-Century Design I	Modern European and American design from 1900 to 1940. Emphasizes transportation, product, furniture, exhibition, and graphic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	
IND	317	20th-Century Design II	Modern European, Asian, and American design since 1940. Emphasizes transportation, product, furniture, exhibition, and graphic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	
IND	327	Presentation Graphics	Studies methods for portfolio and professional product presentation using graphic media for information transfer. Stresses aesthetic judgment, organization, and craftsmanship .	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student; Co-requisite: IND 360
IND	328	Graphics for Industrial Design	Investigates and applies applications and planning to the development of an identity for a product line structured as a system.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 327 with C or better; Co-requisite: IND 361
IND	344	Human Factors in Design	Man-machine environment systems; human characteristics and behavior applied to design of products, systems, and their operating environment.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	354	Principles of Product Design	Influences of physical and mechanical concepts in product design; mechanisms, kinematics, and fastening systems. Concepts of analysis for product design. Influences of concepts on aesthetics.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Pre-Industrial Design or Industrial Design BSD student; PHY 111 with C or better
IND	360	Industrial Design III	Methods of visual thinking, conceptualization, and ideation related to building skill levels in professional design presentation techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design student; IND 261 with C or better; Co-requisite: IND 327
IND	361	Industrial Design IV	Emphasizes developing ideas into a complete functional product, including survey and application of aesthetics, human factors, materials, and manufacturing. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design student; IND 360 with C or better; Co-requisite: IND 328
IND	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	460	Design Project I	Complete analysis of the product unit as an element of mass production, featuring marketing, technology, human factors, and visual design. Emphasizes professional standards. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design student; IND 361 with C or better; Co-requisite: IND 484; IND 470
IND	461	Design Project II	Product design, with emphasis in systems interaction. Culmination of design process and technique. Encourages individual project direction. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design BSD student; IND 460 with C or better
IND	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
IND	465	Collaborative Design Dev II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
IND	470	Professional Practice for Industrial Design	Business procedures, management techniques, accounting systems, ethics, and legal responsibilities of the design professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	L	Pre-requisite: Industrial Design student; Co-requisite: IND 460 or Design Studies minor student
IND	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Industrial Design student; IND 361 with C or better; Co-requisite: IND 460
IND	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
IND	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
IND	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
IND	544	Human Factors Systems and Documentation	Advanced topics associated with theory and methods of human factors in design. Individual projects stressing problem organization, evaluation, and documentation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
IND	548	Design for Sustainable Development	Research on designing systems that are economically viable, ecologically friendly, and socially equitable.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IND	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
IND	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	111	Interior Design Issues and Theories	Interiors issues, theories, and philosophies. Emphasizes unique social and cultural factors that shape 20th-century design concepts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	
INT	120	Design Drawing and Media	Visual thinking; Development of freehand drawing techniques as a language and tool to explore, communicate, and process ideas.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Interior Design student
INT	121	Introduction to Computer Modeling for Interior Design	Computers in interior design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	CS	
INT	123	Introduction to Computer-Aided Design of Built Environments	Introduces AutoCAD computer-aided design principles and strategies for designers of the built environment.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	131	Design and Human Behavior	Applies conceptual design to issues of programming and space planning, user needs, and behavior.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	SB	
INT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
INT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	221	Principles of Design	Applied visual vocabulary: studio experience exploring applications, process and conceptual development of the principles of order and composition.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; INT 120 with C or better; Co-requisite: INT 222
INT	222	Principles of Design Lecture	Applies the visual vocabulary: explores the principles of organization through examination of historical precedence and contemporary interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisite: Interior Design student; Co-requisite: INT 221
INT	223	Drafting for Interior Design	Orthographic, paraline, axonometric, and perspective projection; shades and shadows; and basic descriptive geometry for interior designers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Passed Milestone; Co-requisite: INT 261
INT	238	Intro to CAD	Introduces AutoCAD computer-aided design principles and strategies for designers of the built environment. Lecture, lab.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	253	Interior Materials, Finishes, and Specifications	Survey, evaluation, and specification of materials, finishes, and performance criteria for interiors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; INT 261 with a C or better; Co-requisite: INT 351
INT	261	Interior Design Studio I: Residential	Studio problems in interior design related to behavioral response in personal and small-group spaces.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Passed Milestone; Co-requisite: INT 223
INT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	310	History of Interior Design I	Design of interior spaces as an expression of cultural influences to 1835.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	Pre-requisites: ARS 102 with C or better
INT	311	History of Interior Design II	Design of interiors as an expression of cultural influences from 1835 to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	Pre-requisites: Must have completed INT 310 with a grade of C or greater or be currently enrolled
INT	320	Computer Modeling for Design Studies	Computers in design management, including software concepts, specific packages, problem solving, illustration, modeling, and animation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	341	Interior Codes: Public Welfare and Safety	Codes and regulations as performance criteria for interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	2.		Pre-requisites: Interior Design student; Corequisites: INT 352, INT 362, and INT 381
INT	351	Ambient Environment	Surveys environmental control systems, acoustics, and lighting issues.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Co-requisite: INT 253
INT	352	Construction Methods in Interior Design	Design theory related to analysis, materials, and building techniques of horizontal and vertical construction in interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Co-requisites: INT 341, INT 362 and INT 381
INT	354	Construction Documents	Elements of construction drawing sets, application of codes and specifications, and contract administration.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Interior Design student; Co-requisite: INT 363
INT	362	Interior Design Studio II: Hospitality and Retail	Investigates interior design issues in hospitality and retail environments. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; Co-requisites: INT 341, INT 352 and INT 381
INT	363	Interior Design Studio III	Explores the poetics of materials and their assemblage in the design of public and private spaces. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; INT 362 with C or better; Co-requisite: INT 354
INT	364	Interior Design Studio I	Studio problems in interior design related to behavioral response in personal and small group spaces. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
INT	381	Preinternship Seminar	Preparation of internship materials that produce and enhance a successful internship experience.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisite: Urban Planning , Landscape Architecture BSLA, Graphic Design BSD, Interior Architecture BSD, Architectural Studies BSD, Housing & Urban Developmnt BSD or Industrial Design BSD
INT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	412	History of Decorative Arts in Interiors	Design of decorative arts as an expression of cultural influences and as an extension of interior spaces.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	Pre-requisite: INT 311 with C or better
INT	413	History of Textiles in Interior Design	Cultural and historical expression of textiles as related to interiors.	N	FLD	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: INT 412 with C or better
INT	415	Latin American Design	The impact of Latin American culture and civilization on design throughout the Americas.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Junior standing
INT	446	Furniture Design and Production	Design, construction, cost estimating, and installation in interior furniture and millwork.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design BSD, Interior Architecture BSD or Industrial Design BSD student
INT	464	Interior Design Studio IV: Work Environments	Studio problems in interior design-related issues in work environments. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; INT 363 with C or better; Co-requisites: INT 484; INT 471
INT	465	Interior Design Studio V: Institutional Design	Advanced interior design problem solving related to institutional facilities. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; INT 464 with C or better; Co-requisite: INT 472
INT	471	Facilities Management	Facility management process in large-scale organizations. Planning, long-range forecasting, and productivity. Project management methodologies using micro-based software programs.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design or Design Studies (Design Mngt) BA student and Senior standing
INT	472	Professional Practice for Interior Design	Business procedures, project control, fee structures, and professional product liabilities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	2.		Pre-requisites: Interior Design student; Co-requisite: INT 465
INT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Interior Architecture BSD student; DSC 483 or INT 381 with Y grade
INT	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
INT	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
INT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
INT	527	Contemporary Design Theory	Aesthetic, political, economic, and social theories that have shaped modern design; theory as the basis for design philosophies.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
INT	529	Design Criticism	Applies critical methods to design as material culture and human expression; evaluates achievement versus intention.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
INT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
INT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IPO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
IPO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		

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IPO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
IPO	494	International Program Courses	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	598	International Program Courses	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
IPO	495	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
IPO	495	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
IPO	496	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO: Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IPO	496	International Programs	Courses with the prefix IPO numbered 496 and 596 are reserved for International Programs Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an IPO Study Abroad Program must register for the subtopic IPO; Study Abroad Program; participants in an IPO Exchange Program will register for the subtopic IPC: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on IPO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
IPO	596	International Programs	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
ITA	101	Elementary Italian I	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	102	Elementary Italian II	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	111	Accelerated Elementary Italian	Accelerated elementary Italian for experienced language learners. Emphasizes reading, writing, listening, speaking, and cultural proficiency.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ITA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	201	Intermediate Italian I	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on both spoken and written genres of Italian culture. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ITA	202	Intermediate Italian II	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on values of Italian culture. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ITA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	311	Italian Conversation	Engages students in different oral/aural activities to reach an advanced proficiency level.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 202 with C or better
ITA	312	Italian Composition	Engages students in different written activities to reach an advanced proficiency level.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 202 with C or better
ITA	315	Italian Civilization	Students read and analyze texts and artifacts that represent important cultural and political movements of Italian civilization.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites: ITA 311, 312 with a grade of D or better, or enrolled, or ITA 314 with D or better or enrolled
ITA	319	Italian for Professions	Read and analyze texts and artifacts that represent important cultural and political movements of Italian civilization.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ITA 202 with C or better
ITA	321	Introduction to Italian Literature I	Studies the development of early Italian language, literature, and culture through reading, discussion, and writing activities in Italian.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	322	Introduction to Italian Literature II	Studies the development of modern and contemporary Italian language, literature, and culture through reading, discussion, and writing activities in Italian.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: ITA 202 with C or better
ITA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	413	Advanced Italian	Development and assessment of advanced spoken and written Italian proficiency through activities using all four skills.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 311 or 312 with C or better
ITA	420	Italian Cinema	Major trends of Italian cinema from the post-war period to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	425	Italian American Culture	Analyzes representations of Italian American history and culture in several media including literature, film, and television.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	
ITA	430	Italian Literature of the Middle Ages	Emphasizes Stil Novo, Dante's minor works, Petrarch, and Boccaccio.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: ITA 325 with a grade of C or better or currently enrolled
ITA	441	Dante: Divina Commedia	Critical reading of the three Cantiche (Inferno, Purgatorio, and Paradiso).	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: ITA 325 with a grade of C or better or currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ITA	443	Italian Literature of the Renaissance	Emphasizes Lorenzo de'Medici, Poliziano Castiglione, Machiavelli, Ariosto, and Tasso.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	446	Italian Literature of the 18th and 19th Centuries	Goldoni, Parini, Alfieri, the poetry of Foscolo and Leopardi, and the sociohistorical novels of Foscolo, Manzoni, and Verga.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	449	20th-Century Italian Literature	Major works, figures, and movements of contemporary Italian literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ITA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
ITA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
ITA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ITA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ITA	594	Conf And Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	101	Elementary Italian I	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.		
ITA	102	Elementary Italian II	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.		
ITA	201	Intermediate Italian I	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on both spoken and written genres of Italian culture. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.	G	
ITA	202	Intermediate Italian II	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on values of Italian culture. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.	G	
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		

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JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JHR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	501	Proseminar in Social Justice and Human Rights	Classical and contemporary theories of social justice and human rights in the context of current local, national, and international issues. Special reference made to the roles of both governmental and nongovernmental organizations in addressing social justice and human rights issues.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	506	Grant Writing for Social Justice and Human Rights	Seminar in grant writing and fund raising for social justice and human rights. Provide an introduction to the grassroots grant writing and fund raising process, with a particular focus on justice-oriented nonprofit and international nongovernmental organizations.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	510	Problem-Based Seminar in Social Justice and Human Rights	Interdisciplinary seminar examines current problems in social justice and human rights from several different theoretical and analytical viewpoints. May be repeated once for credit.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	511	Community-Embedded Seminar in Social Justice and Human Rights	Interdisciplinary seminar requiring students to be placed in community organizations dealing with the course issue during the semester. Emphasizes developing effective strategies for partnerships with relevant community organizations and evaluating institutional settings, policies, and procedures from the perspective of social justice and human rights.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	525	Action Research in Social Justice and Human Rights	Advanced practicum in engaged, community-embedded research and interpretive analysis. Gives students experience in the practice of engaged fieldwork as well as the writing it generates.	N	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
JHR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JHR	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		

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JHR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1.		
JHR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
JHR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
JMC	101	Grammar for Journalists	Grammar course specifically designed to help journalism majors master the essentials of grammar. All majors must achieve an 80 percent in the course, indicating a mastery of grammar, before they can move on to any other journalism courses. A test is offered during the first week of each semester's class so that students who feel they already have a mastery of grammar may attempt to test out.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	1.		Pre-requisite: Journalism and Mass Communication student
JMC	201	News Reporting and Writing	Basic news reporting and writing techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.	L	Pre-requisites: ENG 102, 105 or 107 and JMC 110 (or MCO 120) with C or better; JMC major; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA
JMC	320	Newscast Producing	Supervising editorial content of the television newscast. Focuses on writing, use of graphics, and video. Students learn how to design, write, and supervise the television newscast. In practical lab experience, students produce a live 30-minute television newscast airing in greater Phoenix. As must be current on news of the day both locally and nationally, and be prepared to supervise other students in the news-gathering process.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: Journalism major with a 2.50 GPA or higher; completed with a C or better JMC 315 AND JMC 425 or co-enrolled in JMC 315 and JMC 425
JMC	325	Multimedia Reporting	Gives students practical experience working in an online, multimedia environment. Helps sharpen skills and gives them a real-world view of how journalism works in the 21st century.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	325	Multimedia Reporting	Gives students practical experience working in an online, multimedia environment. Helps sharpen skills and gives them a real-world view of how journalism works in the 21st century.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		
JMC	460	Advanced Online Media	Covers online trends, Web design and usability, and copyright; legal, and ethical issues facing online journalists. Students critically examine journalistic Web sites and recognize excellence as well as mediocrity. Hands-on experience in using Photoshop, Dreamweaver, CSS, Soundslides, Final Cut, and Flash to produce original, compelling multimedia stories as well as an award-winning online magazine.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: Journalism and Mass Communication student; JMC 425 with a C or better or currently enrolled; 2.50 minimum cumulative GPA OR Graduate Mass Communication students
JMC	473	The Business and Future of Journalism	Exposes advanced journalism students to broad media management problems; helps students understand how essential the bottom-line and quality journalism are to the entire journalistic enterprise; helps students think about how to balance those two concerns.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	3.		Pre-requisites: Journalism student; minimum cumulative GPA of 2.5; JMC 201 with C or better
JMC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	1-7		Pre-requisites: JMC student; Minimum 2.25 GPA; Successful completion of English proficiency exam OR Graduate Mass Communication student
JMC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	College of Journ/Mass Comm D	1-3		
JMC	110	Principles and History of Journalism	Organization, function, and responsibilities of the media and adjunct services. Primary emphasis on newspapers, radio, television, and magazines. Credit is allowed for only JMC 110 or MCO 120.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	Pre-requisites: Journalism & Mass Communication student
JMC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisite: Journalism and Broadcasting student
JMC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		

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JMC	301	Intermediate Reporting and Writing (Print)	Intermediate news reporting and writing techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	L	Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	310	Public Relations	Theory and practice of publicity, public relations, and related techniques and procedures.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	313	Introduction to Editing	Copyediting and headline writing. Electronic editing on personal computer terminals. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Communication student; 2.50 minimum cumulative GPA; JMC 301 with a C or better or currently enrolled
JMC	315	Intermediate Reporting and Writing (Broadcast)	Intermediate broadcast news reporting and writing techniques with emphasis on audio. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	L	Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	330	Television Reporting	Writing, reporting and editing for television. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 315 and JMC 345 with C or better
JMC	332	Electronic Media Programming	Programming theory and evaluation, regulation, ethics, and responsibilities and basics of audience psychographics and effects.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 200 (or MCO 200) with C or better; Minimum 2.50 GPA
JMC	336	Station Operations	Basic understanding of the operations of a broadcast station. Examines internal organization structure and the relationship between each department.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 200 or MCO 200 with C or better
JMC	345	Videography	Develops an understanding of visual storytelling and how to craft a good, compelling story with pictures and sound. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA; JMC 201 with C or better
JMC	351	Photojournalism I	Basic camera, lighting, and scanning skills. Discusses ethics. Emphasizes shooting pictures for newspaper assignments on deadline. Students should have a 35mm (film) camera. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC students; JMC 201 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 101); Minimum 2.50 GPA
JMC	366	Journalism Ethics and Diversity	Explores contemporary news media ethical problems in a seminar setting. Uses journalism ethical perspectives to obtain keys to unlock contemporary dilemmas surrounding the news media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 110 with C or better; Minimum 2.50 GPA; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 300, JMC 315, TCM 300 or TCM 315 with C or better
JMC	402	Mass Communication Law	Legal aspects of the rights, privileges, and obligations of the press, radio, and television.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	L	Pre-requisites: JMC student; JMC 201 and ENG 102 with C or better; Minimum 56 hours; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA
JMC	412	Editorial Interpretation	The press as an influence on public opinion. Role of the editorial in analyzing and interpreting current events.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Prerequisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	413	Advanced Editing	Theory and practice of newspaper editing, layout and design, picture and story selection. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student, JMC 313 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	414	Graphic Design for Print and Web	Theory, organization, and practice of layout, typography, and design in traditional and multimedia publishing. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Comm student; JMC 201 with a C or better or be currently enrolled; successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); 2.50 cumulative GPA
JMC	415	Writing for Public Relations	Development of specific writing techniques for the practitioner in public relations agencies and divisions of major organizations. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; JMC 270 or JMC 310 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	417	Public Relations Campaigns	Theory, principles, and literature of public relations and how they relate to audiences, campaigns, and ethics.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; JMC 270 or JMC 310 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	420	Reporting Public Affairs	Instruction and assignments in reporting the courts, schools, government, city hall, social problems, and other areas involving public issues. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student, JMC 301 with C or better; Minimum 2.5 GPA OR Graduate Mass Communication student
JMC	425	Online Media	Focuses on the Internet from the perspective of the journalist--the best way to tell a story using words, photos, video, and audio. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student; JMC 201 with C or better or currently enrolled; 2.5 cumulative GPA OR Graduate Mass Communication students
JMC	433	Media Sales and Promotion	Basics of electronic media marketing practices, including commercial time sales techniques and radio/TV promotion fundamentals.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Comm student, JMC 200 (or MCO 200) with a grade of C or greater or be currently enrolled; 2.5 cumulative GPA OR Graduate Mass Communication students

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JMC	437	Documentary Production	Emphasizes individual production projects of the student's own conception and design utilizing studio, field, and postproduction techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.5 GPA; JMC 345 with C or better OR Graduate Mass Communication student
JMC	440	Magazine Writing	Writing and marketing magazine articles for publication. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.5 GPA OR graduate Mass Communication student
JMC	445	Science and Medical Writing	Develops writing, reporting, and an understanding of key concepts in science as they relate to medical science research and practice. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	451	Photojournalism II	Emphasizes shooting and Photoshop skills for newspaper and magazine assignments. Film and digital photography, flash and studio lighting. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communications student; JMC 351 with a C or better or currently enrolled; 2.5 minimum cumulative GPA OR Graduate Mass Communication student
JMC	452	Photojournalism III	Continued practice in shooting (film and digital) and Photoshop skills for newspapers and magazines. Emphasizes single images, picture stories, editorial illustrations, and portfolio development. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 451 with C or better OR Graduate Mass Communication student
JMC	465	Precision Journalism	Advanced reporting methods using Internet research and data analysis tools for beat and investigative stories. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Communication student; JMC 301 with a C or better or currently enrolled; 2.50 minimum cumulative GPA OR Graduate Mass Communication students
JMC	470	Depth Reporting	Introduces strategies for writing in-depth newspaper or magazine articles. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	472	Media Management	Management principles and practices, including organization, procedures, policies, personnel problems, and financial aspects of station management.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; MCO 200 (or JMC 200) with C or better; Minimum 2.50 GPA OR Graduate Mass Comm student
JMC	475	Television Newscast Production	Writing, reporting, and production of the television newscast. May be repeated once for credit. Fee.	N	LEL	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3-9		Pre-requisites: Journalism and Mass Communication student ; JMC 330 with C or better or currently enrolled; 2.50 cumulative GPA OR Graduate Mass Communication student
JMC	478	Cronkite News Service	Supervising editorial content of the television newscast. Focuses on writing, use of graphics, and video.	N	LEL	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3-9		Pre-requisites: Journalism and Mass Communication student; JMC 301 or JMC 330 with C or better
JMC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
JMC	492	Honors Directed Study		N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6		
JMC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisites: JMC student; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		
JPN	101	First-Year Japanese I	Basic speaking, listening, reading, writing, computer skills, and culture. Hiragana, katakana, 75 kanji. For students without previous Japanese instruction. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
JPN	102	First-Year Japanese II	Continued development of JPN 101 skills. 99 additional kanji. Communication skills goal: ACTFL Guideline Novice-Mid to Novice-High. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites: JPN 101 with a C or greater or in progress. Students may not take JPN 102 if they have received credit for JPN 201,202, 309,310,311,312,313,314,321
JPN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
JPN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	201	Second-Year Japanese I	Continued development in speaking, listening, reading, writing, culture, and computer skills. 74 additional kanji. Introduction to kanji dictionary. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: JPN 102 with a C or greater or in progress & may not enroll in class if received a D or better in JPN 202,309,310,311,312, 313,314,321
JPN	202	Second-Year Japanese II	Continued development of JPN 201 skills. 116 additional kanji. Communication skills goal: ACTFL Guideline Intermediate-Low to Intermediate-Mid. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: JPN 201 with a C or greater or currently enrolled
JPN	206	Japanese Calligraphy	Introduces Japanese calligraphy using traditional implements, starting with basic brush strokes and stroke order for kanji and kana.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		Pre-requisites: JPN 101 with C or better
JPN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
JPN	301	Third-Year Japanese I	Development of reading skills, using authentic materials to comprehend structure, grammar, idioms, and culture. Expansion of kanji and vocabulary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisite: JPN 202 with C or better
JPN	302	Third-Year Japanese II	Continued development of reading skills, as in JPN 301. Reading proficiency goal: ACTFL Guideline Intermediate-High.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 301 with C or better
JPN	309	Japanese Oral Communication I	Development of interpersonal, interpretive, and presentational oral/aural skills in familiar topics with sociolinguistic skills and understanding of Japanese culture. JPN 309 and 310 must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 202 with C or better
JPN	310	Japanese Oral Communication II	Continued development of oral/aural skills, with increased emphasis on honorifics. Speaking proficiency outcome goal: ACTFL Guideline Intermediate-High.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 309 with C or better
JPN	311	Japanese Composition I	Learning structural guidelines for narrative writing, developing organization skills to support ideas. Writing proficiency outcome goal: ACTFL Guideline Intermediate-High.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 202 with C or better
JPN	312	Japanese Composition II	Continued development of writing skills, introducing research and creative writing. Writing proficiency goal: ACTFL Guideline Intermediate-high to Advanced.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 311 with C or better
JPN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	401	Reading Modern Japanese Texts I	Readings in modern literary and expository texts. Focus varies from year to year.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	Pre-requisites: JPN 302 and SLC 202 with C or better
JPN	414	Introduction to Classical Japanese	Readings from various genres of pre-20th-century literature, with analysis of the structure of the classical language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 401 with a grade of C or better
JPN	415	Advanced Classical Japanese	Close readings of selected premodern texts, with focus on grammatical and stylistic features.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 414 with C or better
JPN	445	Readings in Modern Japanese Letters and Culture	Advanced study of selected facets of modern Japanese letters and culture, including literature, material and visual culture, film, and other media.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 401 and SLC 202 with C or better
JPN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	485	Literary Translation: Theory and Practice	Introduces theories and practice of literary translation, with an emphasis on the translation of Japanese literary texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 401 and SLC 421 with a C+ or better
JPN	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
JPN	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
JPN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
JPN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	520	Teaching of Japanese as a Second Language	Theory and practice of teaching Japanese, including presentation, interaction, and evaluation, with consideration given to cultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	535	Advanced Readings	Readings in primary and secondary sources in history, art, religious studies, literature, or other fields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	543	Japanese Language and Linguistics	Analysis and discussion of linguistic theories applied to Japanese phonology, morphology, and syntax, including psychological, sociological, and historical aspects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	585	Advanced Problems of Translation	Theories and practice of translation; strategies for handling a variety of Japanese texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
JPN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
JPN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	102	First-Year Japanese II	Continued development of JPN 101 skills. 99 additional kanji. Communication skills goal: ACTFL Guideline Novice-Mid to Novice-High. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.		
JPN	201	Second-Year Japanese I	Continued development in speaking, listening, reading, writing, culture, and computer skills. 74 additional kanji. Introduction to kanji dictionary. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
JPN	202	Second-Year Japanese II	Continued development of JPN 201 skills. 116 additional kanji. Communication skills goal: ACTFL Guideline Intermediate-Low to Intermediate-Mid. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
JUS	105	Introduction to Justice Studies	Introductory overview to the study of justice from a social science perspective. Primary topics include justice theories and justice research. Credit is allowed for only JUS 105 or 305. Appropriate for freshmen and sophomores.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Open to undergraduate students who have not received credit for JUS 305; Justice Studies students must have 56 or less earned hours
JUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Must have less than or equal to 25 earned hours
JUS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: Must have less than or equal to 25 hours
JUS	200	Topics in Concepts and Issues of Justice	Uses critical thinking skills to analyze and comprehend controversial social issues (e.g., abortion, affirmative action, capital punishment, the flat tax, and immigration).	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	207	Homicide and Serial Killers	Explores the scholarship, research and rational analysis of the mass, spree and serial killer. It will examine some of the causes and underpinnings of these killers within the U.S. as well as the major theories and understandings of this phenomenon.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	214	Justice Institutions	Introduces a wide variety of institutions and organizations--locally, nationally and internationally--that seek justice. Provides an understanding of the many ways justice is institutionalized in modern societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	222	Drugs and Justice	Provides an historical overview of the development and circulation of certain drugs; explores the more specific effects of drug use and abuse in everyday life; and examines the efforts by governments to both restrict/end and facilitate/expand the drug trade.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Credit is allowed for only JUS 200 (Drugs and Justice) or 222
JUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
JUS	301	Research in Justice Studies	Focuses on developing and evaluating research designs, data collection, and the relationship between validity and reliability. Stresses methods for conducting research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Justice Studies BS student with minimum 25 hours; specific students as determined by Justice Studies Dept with minimum 2.0 GPA and minimum 25 hours.; Non Justice Studies students with minimum 2.0 GPA and greater than 56 hours
JUS	302	Basic Statistical Analysis in Justice Studies	Introduces the fundamentals and application of descriptive and inferential statistics, with emphasis in the justice area.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	CS	Pre-requisites: Must have completed Intermediate Algebra or higher; Justice Stds student OR 2.0 GPA and 25 earned hours and specific students as determined by Justice Stds Depart. OR 2.0 GPA and more than 56 hours and not be a Justice Stds student.

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JUS	303	Justice Theory	Examines classic and contemporary philosophies and theories of justice, including legal, social, and criminal justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-reqs: Justice Studies student with minimum 25 earned hours OR specific students as determined by Justice Stds Dept with minimum 2.00 GPA and 25 earned hours OR Non-Justice Studies student with minimum 2.00 GPA and minimum 56 hours
JUS	305	Principles of Justice Studies	Introductory overview to the study of justice from a social science perspective. Primary topics include justice theories and justice research. Credit is allowed for only JUS 305 or 105. Appropriate for juniors and seniors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: BS student in Justice Stds; have 25 or more earned hours OR 2.00 GPA; 56 or more earned hours and not be a BS student in Justice Stds. May not have received credit in JUS 105
JUS	306	Police and Society	Focuses on community policing; critical inquiry of administrative decision making; perspectives on police-citizen violence; street practices; urban policing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	308	Courts and Society	History and development of courts. Relationship between dispute resolution mechanisms and cultural/social structure/processes in which they are embedded.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	310	Corrections and Justice	Examines the United States prison condition; types of offenders; issues including drugs, gangs, drunk driving, racial discrimination, and "intermediate" punishments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	311	Crime, Prevention, and Control	Examines prevention and control of crime by a review of contemporary theories, justice agency procedures, and social policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	320	Community and Social Justice	Discusses and analyzes definitions of community; impact of environment on behavior; promises of community organization for local empowerment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	321	Wealth Distribution and Poverty	Examines wealth and income distribution in the United States and analyzes ideological and political forces producing an increasingly unequal society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	323	Justice and the Development of the Welfare State	Provides a comprehensive overview of the development of social welfare and relevant issues pertaining to social justice. Introduces upper-division students to different ideas about the meaning of social welfare in the context of the development of the U.S. welfare state.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	325	Globalization and Socio-Economic Justice	Addresses a trend producing increasing interconnectedness of economies and societies, as well as creating new conflicts and divisions. Provides greater understanding of global forces, as well as the effect of these forces on global economic justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	329	Domestic Violence	Legal, historical, theoretical, and treatment aspects of domestic violence, including child abuse, woman battering, incest, and marital rape.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	332	Politics of Energy Policy and Justice	Examines the social and political dimensions that shape energy and environmental policy. Focuses primarily on the U.S. Introduces elements of regional or global policy where they influence or shape domestic politics and policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	335	Organized Crime	Nature of organized crime and its illegal activities, theories of containment, and efforts by justice agencies to counter its dominance in society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	350	Immigration and Justice	Examines immigration policy, history of immigration, refugee issues, labor force participation, gender, family, children, social networks, and transnationalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	352	The Global Politics of Human Rights	Examines political forces that have shaped gradual construction of an international human rights regime and a universal culture of rights, including civil and political rights, as well as economic, social, and cultural rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	360	Law and Social Control	Resolution of social issues through the application of law as an agent of social control. Nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	374	The Holocaust, Genocide, and Human Rights	Explores the psychological, social, historical, and political dimensions of the Holocaust and the phenomenon of genocide. Also examines the more recent international cases of genocide along with a discussion and analysis of the Universal Declaration of Human Rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	375	Justice and the Mass Media	Surveys the impact of mass media and popular culture on social justice, including criminal justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	382	Justice and Pop Culture	Explores the connections between the production, reproduction, and consumption of popular culture and the resultant impact on issues of justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	385	Justice and Everyday Life	Justice and injustice in everyday life and how small things can become legal issues. Role of language and interaction in social order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student

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JUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: ENG 102, 105 or 108 with C or better; minimum 2.00 GPA; minimum 12 semester hours; If Justice Studies student, must be enrolled or earned J-1 Core Status or earned Capstone Status
JUS	404	Imperatives of Proof	Issues of evidence, rules of proof, establishing fact and identity in the justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	405	Economic Justice	Addresses economic issues and justice implications, including the interplay among economic conditions, race-ethnicity, class, and gender worldwide.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	408	Comparative Development of the Welfare State	Embodies a multidisciplinary perspective on welfare issues and exposes students to different ideas about justice beyond the United States. Allows them to better understand how and why states organize and deliver justice in different ways. Exposes students to cross-national variation in how history, culture, politics, and economics have shaped the development and content of different types of welfare states. Engages theoretical perspectives from political sociology and political economy concerning the emergence and future fate of these welfare states. Analyzes comparative analysis of three distinctive types of welfare states; Liberal, Conservative, and Social Democratic Welfare States, with particular emphasis on their varying capacity to combine economic efficiency with social justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	410	Punishment: Logic and Approach	Analyzes forms of punishment, how and why they have changed. Areas include philosophy, history, and social structure of punishment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	415	Gender and International Development	Examines the ways in which international development is gendered as well as women's rights as human rights in both national and international arenas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & G	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	420	Women, Work, and Justice	Examines gender inequality in the workplace, including the nature of women's work, theoretical issues, and models for promoting gender justice at work.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	422	Women, Law, and Social Control	Examines social, economic, and legal factors that are relevant to mechanisms of social control of women, including formal legal control and informal control through violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	425	Race, Gender, and Justice	Critically examines major theories, research findings, policies, and controversies concerning race, ethnicity, gender, and crime.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: ENG 102, 105 or 108 with C or better; minimum 2.50 GPA; minimum 24 semester hours; If Justice Studies student, must have been enrolled or earned Capstone status OR Graduate student
JUS	430	Social Protest, Conflict, and Change	Analyzes historical and contemporary protest movements advocating equality based on race, gender, and sexual orientation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	432	Racial Justice	Racial inequality remains a dominant theme in understanding social, legal, and economic justice in the U.S. today. Explores controversial topics surrounding race and justice. Emphasizes current legal, economic, political, and social conceptual frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	435	Cinema and Justice	Tracks the conceptualizations of justice that have been and are currently conveyed in film, including but not limited to the relationship between crime and various notions of justice. Other depictions include social issues such as gender, race, or economics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	438	Human Differences: Dilemmas of Justice	General examination of democracy and human differences that expands into in-depth investigations of (1) racial difference and identity politics; (2) gender and sexual difference in democracy; and (3) cultural difference and the multiculturalism debate.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	440	Administration and Justice	Diversity issues; procedural justice and service delivery; relationships between state and economic forces, including processes of regulation; state administrative apparatuses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	444	Environment and Justice	Explores issues of environment and justice. Topics include justice and environmental racism, future generations, nonhuman life, global/non-Western societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student

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JUS	445	Surveillance and Society	Explore how surveillance technologies alter social life; the complex ways that they interact to produce security, fear, control, and/or vulnerability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	450	Alternatives to Incarceration	Investigates various alternatives to incarceration; advantages/disadvantages; major issues including net widening, cost effectiveness, risk assessment, community crime prevention.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	452	Justice Issues in Israel and Palestine: The Political is Personal	Explores the justice issues related to the symbolic, historical, geographic, political, economic, religious, social ,and cultural meanings of Israel and Palestine. Focuses on how and why the "political" is felt so very personally in everyday life in Israel and Palestine.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	460	Feminism and Justice	Explores feminist thought and critiques traditional political theories. Examines issues of racism, sexuality, and the law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	463	Discretionary Justice	Use/abuse, key issues/manifestations of discretion in legal system and other societal institutions. Theoretical/empirical linkages between discretion and discrimination, based on race, ethnicity, and gender.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	465	Death Penalty in the United States	Focuses on capital punishment in the United States; explores negotiation of law, politics, morality, public policy, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	467	Terrorism, War, and Justice	Examines the relationship among terrorism, war, and justice. Analyzes terrorism within the larger study of deviance and social control, comparative politics, hegemony, and international law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	469	Political Deviance and the Law	Examines the controversies created by political and deviant behavior, including a critical view of law as an agent of social control.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	470	Alternative Dispute Resolution	Critical examination of the tenets of alternative dispute resolution movement; exposure to the programs of ADR, including community and court based.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	473	Religion, Violence, and Conflict Resolution	Focuses on the ambiguous, often confounding role of religion in local and global conflict and the pursuit of peace.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisite: ENG 102, 105 or 108 with C or better; non-JUS or specific students determined by JUS dept; min 56 hours; 2.50 GPA OR prof/capstone undergrad or Justice Studies graduate;Students with credit for REL 482 or POS 473, may not enroll in JUS 473
JUS	474	Legislation of Morality	Addresses historical and contemporary issues related to social justice movements, law, and morality in a pluralistic society. Issues include AIDS, burial rights, homosexuality, poverty, prostitution, and racial discrimination.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	477	Youth and Justice	Critical examination of youth-related justice issues, including economic justice, violence against youth, delinquency, and the juvenile justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L or SB	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	479	Law and Disputing	Critical analysis of the controversies created by disputes, law, and other forms of social control.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L or SB	Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a capstone or professional undergraduate or a graduate Justice Studies student
JUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		Pre-requisites: Must be an Honors student
JUS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
JUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: 56 earned hours; 2.50 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate or a graduate Justice Studies student
JUS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		Pre-requisites: Must be an Honors student
JUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		
JUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		

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JUS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Justice Studies MS or PHD student
JUS	501	Justice Theory	Theories and philosophies of social, economic, political, and criminal justice. Applies theories to contemporary justice issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	503	Crime and Social Causation	Theories of deviance and crime as they relate to social policies and specific response of the justice complex.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	509	Statistical Problems in Justice Research	Methodological problems of research design and statistical methods specific to justice studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	521	Qualitative Data Analysis and Evaluation	Analyzes qualitative data, e.g., field notes, in-depth interview transcripts, document analysis, coding, and retrieval with a microcomputer; qualitative evaluation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	542	American Indian Justice	Provides a broad overview of American Indian and Alaskan Native issues of justice and injustice in contemporary society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	550	Gender, Race, and Economic Justice	Provides a critical social scientific perspective on economic issues particularly as they relate to gender, race, and class equality. Examines issues of economic inequalities as they are distributed along the lines of gender and race. Components converge to identify the social justice ramifications of economic policy and economic conditions.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	555	Migration/Immigration and Justice	Explores the causes and consequences of immigration to the United States and the incorporation of immigrants into the American economy and society.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	560	Women, Law, and Social Control	Gender issues in the exercise of formal and informal mechanisms of social control, including economic, social, legal factors, both violent and nonviolent.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	570	Juvenile Delinquency	Study of delinquency, including causation theories. Alternative definitions of delinquency, official statistics, and the critique and analysis of the interaction between social institutions and youth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	575	Race, Gender, and the Law	Explores the law and social sciences literature on race, ethnicity, gender, and the legal order. Critically assesses the major contemporary theoretical and policy debates and controversies in the field from a variety of disciplinary and interdisciplinary lenses, setting these debates in their historical contexts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	579	Political Deviance	Seminar examines the politics of deviance by integrating the study of conflict with aspects of social organization, especially state formation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	588	Justice and the Mass Media	Analyzes the nature and impact of mass media messages about justice concerns for social order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
JUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		

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JUS	610	Law and the Social Sciences	Analyzes the theoretical grounds underlying diverse studies of law and society; creation and administration of law; and jurisprudence and politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	620	Justice Research Methodology	Covers the epistemology of knowledge and method in justice research, history, and philosophy of social science and critical inquiry, as well as perspectives that link these concerns to research strategies. Explores the strengths and weaknesses of introduced methodologies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 500 with C or better
JUS	630	Data Analysis for Justice Research	Bivariate and multivariate techniques of data analysis and hypothesis testing for justice-related research and use of information and statistical programs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 509 with C or better
JUS	640	Theoretical Perspectives on Justice	Analyzes philosophical perspectives of justice; linkages between social science theory and justice constructs; application of justice to social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 501 with C or better
JUS	650	Advanced Qualitative Data Analysis	Advanced qualitative data collection and analysis techniques, including ethnography, in-depth interviews, field notes, coding, transcribing, content analysis, textual analysis.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	660	Globalization and Economic Justice	Explores the political economy of globalization from a theoretical as well as practical standpoint. Sources used come from a variety of disciplines--sociology, political science, international relations, geography, and economics--all of which contribute unique theoretical and normative tools for analyzing the effect of global forces on economic justice.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student
JUS	669	Political Trials and Indigenous Justice	Focuses upon research on political trials, deviance, and conceptions of indigenous and contemporary justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
JUS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
JUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
KE	211	Chemical Process Calculations		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Chemical Engineering Program	2.		
KE	461	Process Control		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
KIN	100	Introduction to Health and Wellness	Current concepts in health, exercise, and wellness. Emphasizes personal health, theories, attitudes, beliefs, and behaviors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	
KIN	101	Introduction to Kinesiology	Introduces the disciplines and professions associated with kinesiology, including an overview of historical and philosophical foundations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		
KIN	105	Physical Education Activity	Beginning instruction in a wide variety of sports such as aerobics, aquatics, racquet sports, physical conditioning, and golf. 3 hours per week. Y grade only. Fee.	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	105	Physical Education Activity	Beginning instruction in a wide variety of sports such as aerobics, aquatics, racquet sports, physical conditioning, and golf. 3 hours per week. Y grade only. Fee.	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	110	Research Analysis Laboratory	Introduces basic research areas in the discipline of kinesiology. Topics may include the following: developmental learning, exercise physiology, exercise psychology, exercise testing, metabolic physiology, motor control, motor learning, research journals and societies, research methods, research writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-2		Pre-requisites: Must be a student in one of the following: Pre Sec Ed - Physical Ed, Exercise Sci/Phys Educ or Kinesiology.
KIN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-3		Prerequisite: Must be a freshman with 25 or less total earned hours
KIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		

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KIN	205	Physical Education Activity	Intermediate levels. Continuation of KIN 105. 3 hours per week. fee	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	310	Collegiate Sports	Participation in men's or women's intercollegiate competition. May be repeated for 4 hours 1 per year. Y/E grade.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	334	Functional Anatomy and Kinesiology	Muscles, bones, joints, and nerves and how they produce movement. Emphasizes muscle origins, insertions, actions, and innervations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed BIO 201 or ZOL 201 with a grade of C or greater or be currently enrolled; Must have completed BIO 202 with a grade of C or greater or be currently enrolled
KIN	335	Biomechanics	Basic anatomical and mechanical principles applied to human movement. Emphasizes kinematic and kinetic concepts. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: BIO 201 (ZOL 201) and BIO 202, PHY 111, and KIN 101 (or KIN 200) with C or better; One of the following courses: MAT 170, 210, 251, 270, 271, or 272 with a C or better
KIN	340	Physiology of Exercise	Physiological mechanisms of acute responses and chronic adaptations to exercise. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: KIN 101 (or KIN 200), BIO 201 (ZOL 201) and BIO 202 (ZOL 202) and one of the following courses: CHM 101, 113, 114, 115, 116, 117, or 118 with C or better
KIN	345	Motor and Developmental Learning	Principles of motor skill acquisition across the life span, focusing on the learner and the learning environment. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: KIN 101 (or KIN 200) with a C or better; PGS 100 or PGS 101 with a C or better; BIO 201 (ZOL 201) with a C or better
KIN	348	Psychological Skills for Optimal Performance	Applies psychological techniques and their use to improve effectiveness and performance in sport and related areas.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	
KIN	352	Psychosocial Aspects of Physical Activity	Interrelationships between physical activity and psychosocial variables, including socialization, cultural values, aggression, and motivation. Includes the psychological benefits of physical activity and exercise adherence.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB & C	Pre-requisites: KIN 101 (or KIN 200) with C or better; PGS 100 or PGS 101 with C or better
KIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	412	Biomechanics of the Skeletal System	Biomechanics of tissues, structures, and major joints of the musculoskeletal system. Discussion of injury mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed KIN 335 with a grade of C or better; If you received credit in KIN 512, you may not enroll in KIN 412
KIN	413	Qualitative Analysis in Sport Biomechanics	Develops systematic approach for detecting and correcting errors in human performance using anatomical and mechanical principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 335 or KIN 335 with a grade of C or greater or be currently enrolled in KIN 335
KIN	414	Electromyographic Kinesiology	Muscular contributions to human movement, muscle mechanics, electrophysiological basis, and practical application of electromyography. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 335, KIN 335 or PED 335 with a grade of C or greater or be currently enrolled in KIN 335; Must have completed EPE 240, KIN 340 or PED 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	421	Human Motor Control	Focuses on understanding how the human central nervous system controls, regulates, and learns movements.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	422	Motor Control in Special Populations	Discusses principles of motor control theories and related practical applications for certain special developmental populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	423	Motor Control and Aging	Functional and behavioral changes to the motor control system as humans age, how specifically it impacts motor control and learning.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	440	Exercise Biochemistry	Study of bioenergetics and metabolism of cellular (skeletal muscle, heart, and liver) organelles and proteins during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater in KIN 340. Students who have credit for KIN 532, may not enroll in KIN 440
KIN	441	Physiology of Women in Sport	Physiological aspects of women engaging in physical activity. Emphasizes factors affecting performance and health throughout life.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater in KIN 340. Students who have credit for KIN 531, may not enroll in KIN 441
KIN	442	Fuel Metabolism	Discusses current research concerning the metabolism of carbohydrate, fat, and protein during exercise. Credit is allowed for only KIN 442 or 536.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater in KIN 340. Credit is allowed for only KIN 442 or 536.
KIN	443	Exercise Endocrinology	Discusses current research and theory concerning hormonal changes during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or better in KIN 340. Students who have credit for KIN 533, may not enroll in KIN 443
KIN	444	Metabolic Adaptations to Exercise Training	Examines physiologic adaptations to exercise training as they relate to metabolism and tissue functions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	445	Exercise Physiology for Children and Adolescents	Understanding the influence of physical growth and maturation on the development of the functional capacities of the exercising child. Credit is allowed for only KIN 445 or 535.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	448	Applied Sport Psychology	Psychological theories and techniques applied to a sport to enhance the performance and personal growth of athletes and coaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 352, PED 352 or KIN 352 with a grade of C or greater in KIN 352. Students who have credit for KIN 520, may not enroll in KIN 448
KIN	450	Biopsychosocial Perspectives on Physical Activity and Health	Uses a biopsychosocial perspective to examine the interrelationships on physical activity and health (physical and mental).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 352 or KIN 352 with a grade of C or greater or be currently enrolled in KIN 352
KIN	452	Exercise Psychology	Contemporary research and theory as related to human behavior and health in an exercise setting.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	Pre-requisites: Must have completed EPE 352, PED 352 or KIN 352 with a grade of C or greater in KIN 352. Students who have credit for KIN 522, may not enroll in KIN 452
KIN	460	Theory of Strength Training	Research and theories on developing muscular strength; programs for developing muscular strength.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-6		Pre-requisites: Must be an Honors student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
KIN	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-6	L	Pre-requisites: Must be an Honors student
KIN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		Pre-requisites: Academic Level may not equal Freshman
KIN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-7		Pre-requisites: Must be BS Kinesiology student; Seniors only
KIN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-3		
KIN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	501	Research Statistics	Statistical procedures; sampling techniques; exercise testing, exercise prescription, hypothesis testing, and experimental designs as they relate to research publications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	505	Applied Exercise Physiology Techniques	Investigative techniques used in the applied exercise physiology lab. Emphasizes pulmonary function, body composition, and cardiorespiratory assessment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	510	Introduction to Biomechanics Research Methods	Applies mechanics to human movement analysis. Includes consideration of 2-D imaging techniques, force measurement, electromyography, and data processing methods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	512	Biomechanics of the Skeletal System	Biomechanics of tissues, structures, and major joints of the musculoskeletal system. Discusses injury mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 412 or 512
KIN	520	Sport Psychology	Current research in sport psychology with an emphasis on performance enhancement. Includes questionnaire, psychophysiological, and behavioral research methods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 448 or 520
KIN	521	Motor Development, Control, and Learning	Theory and research on motor skill acquisition, including learning/control and development (i.e., growth, children and exercise, and development learning).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	4.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	522	Exercise Psychology	Contemporary research and theory as related to human behavior and health in an exercise setting.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 452 or 522
KIN	530	Exercise Physiology	Immediate and long-term adaptations to exercise with special reference to training and the role of exercise in cardiovascular health.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	531	Physiology of Women in Sport	Physiological aspects of women engaging in physical activity. Emphasizes factors affecting performance and health throughout life.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 441 or 531
KIN	532	Exercise Biochemistry	Understanding the basic biochemical principles and enzyme pathways involved in energy transduction during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 440 or 532
KIN	533	Exercise Endocrinology	Discusses current research and theory concerning hormonal changes during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 443 or 533
KIN	535	Exercise Physiology for Children and Adolescents	Understanding the influence of physical growth and maturation on the development of the functional capacities of the exercising child. Credit is allowed for only KIN 535 or 445.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	536	Fuel Metabolism	Discusses current research concerning the metabolism of carbohydrate, fat, and protein during exercise. Credit is allowed for only KIN 536 or 442.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking). Students who have credit for KIN 442, may not enroll in KIN 536
KIN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
KIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Kinesiology	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	598	Special Topics	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	610	Advanced Topics in Biomechanics	3-D imaging techniques, data analysis theory, and integration of biomechanics research tools; includes original research project.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	621	Motor Learning/Control	Discussion of contemporary research issues in motor learning and control. Includes behavioral and neurophysiological issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Kinesiology	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Kinesiology	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KOR	101	First-Year Korean I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills, including Han'gul. Lecture, recitation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
KOR	102	First-Year Korean II	Continuation of KOR 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:KOR 101 with a grade of D or better, or currently enrolled
KOR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	201	Second-Year Korean I	Continual development of communication skills. Increased emphasis on reading and writing, vocabulary building, and review of fundamentals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: KOR 102
KOR	202	Second-Year Korean II	Continuation of KOR 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: KOR 201
KOR	250	Korean Culture and Society	Surveys Korean culture and society, covering history, religious traditions, gender, and popular culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
KOR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	313	Third-Year Korean I	Continued development of ability to communicate orally and in writing. Exposure to a variety of Korean written styles.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: KOR 202
KOR	314	Third-Year Korean II	Continuation of KOR 313.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: KOR 313
KOR	347	Korean Film and Literature	Introduces aspects of Korean history, culture, and society through Korean film and literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	
KOR	350	Women of Korea	Examines the changing role and status of women in modern Korea in relation to political and cultural changes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	H	
KOR	353	Folk Religions of Korea	Introduces forms of folk religions in Korea: shamanism, village rituals, ancestor-worship, fortune-telling, geomancy, and folk elements in major traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
KOR	354	Religious Traditions of Korea	Examines major religious traditions of Korea: Buddhism; Christianity; Neo-Confucianism; indigenous practices and their development through political, cultural, and social frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
KOR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
KOR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
KOR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
KOR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
KOR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAA	345	Professional Practice Seminar	Landscape architecture practice including contracts, project and office management, liability, licensing, and professional development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Landscape Architecture student; Co-requisite: LDE 362
LAA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Landscape Architecture BSLA plan; Co-requisite: LDE 461
LAP	485	International Field Studies in Landscape Architecture	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	Y	FLD	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
LAP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
LAP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LAP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAT	101	Elementary Latin	Basic Latin grammar with an emphasis on developing reading skills. For beginning students only.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
LAT	102	Elementary Latin	Continuation of LAT 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: LAT 101
LAT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
LAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	201	Intermediate Latin I	Final semester of grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	HU	Pre-requisites: LAT 102

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LAT	202	Intermediate Latin II	Beginning reading of Latin authors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	HU	Pre-requisites: LAT 201
LAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	421	Roman Literature	Readings in the Latin masterpieces. Authors read change each year in accordance with needs of the class. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: LAT 202
LAT	422	Roman Literature	See LAT 421.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: LAT 202
LAT	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
LAT	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
LAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
LAT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
LAT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
LAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAW	105	The Structure and Methodology of the American Legal System	What is law? What is the structure of the American legal system? What does it mean to understand law in the context of that system? How is this system effective and problematic and how does its evolution over time change our perceptions of and relationships with those who are part of it? Provides answers to these and other questions while simultaneously developing a working understanding of American law, its practicalities, and externalities. Takes the form of a comprehensive inquiry into the legal system, its origins, structures, applications, success, failure, and decision-making processes. In asking probing questions about the system and its nature, explores the values and philosophies that inform our American conception of the law and its role in society.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	3.		
LAW	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	College of Law Dean's Office	1-4		
LAW	614	International Contracts	Explores the laws applicable to international contractual relations, focusing heavily on the United Nations Convention on Contracts for the International Sale of Goods. One of several offerings in the field of International Business Transactions, touches on choice of law rules and a comparison of selected UCC with CISG provisions; a comparison of the contract law of selected foreign nations with the UCC; and the law of contracts in the United States. The casebook is heavily oriented toward a problem method of study.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	641	Securities Regulation II	Securities laws affecting the purchase and sale of publicly-traded securities.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	659	Intellectual Property Portfolio Management	Covers business/law dynamics in the technology sector.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	1-4		
LAW	660	Advanced Estate Planning	Covers advanced estate planning and estate administration issues.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		

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LAW	661	Constitutional Literacy	Academic complement to the Marshall-Brennan Constitutional Literacy Program where law students teach constitutional law to high school students.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	1-3		
LAW	662	Alternative Dispute Resolution and Employment Law	The use of alternative dispute resolution has been most extensive in the area of employment law. Mediation and arbitration are widely used not only in the collective bargaining setting, but also in virtually every aspect of the employment relationship. Offers a comprehensive review of the subject with special emphasis on the extensive body of law that has developed in regulating employer-imposed arbitration. Discussion of mediation includes use of simulations to enable the students to understand how mediation can effectively resolve employment disputes. Opportunities to observe real mediations of employment disputes. Experienced attorneys discuss the "real world" use of employment ADR from a plaintiff's and a defendant's perspective.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	663	Prisoner Rights	Provides overview and basic understanding of the rights of prisoners within the United States penal system. Emphasizes prisoners' civil rights under the U.S. Constitution and 42 U.S.C. Section 1983, including claims such as access to courts, conditions of confinement, religious freedoms, excessive use of force, ineffective medical assistance. Analyzes prison culture and models for reform, state post-conviction rights of appeal, the death penalty, parole, and commutation. Includes optional tour of a maximum security prison (which is much different from the county jail tour) and guest speakers (correctional officers and former inmates).	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	664	Intellectual Property	Surveys the laws conventionally grouped as intellectual property, with a focus on patents, copyrights, and trademarks. Explores the policy rationales for each body of law. Particularly relevant for two types of students: (a) those who are unsure they want to specialize in IP and want a general introduction, and (b) those who do not have room in the schedules to take all of the upper-level offerings here at ASU. Not appropriate for students who have already taken the upper-level courses in copyright, trademark, and patents; students who have taken these offerings may be withdrawn.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-4		
LAW	665	Fundamentals of Legal Drafting	Fundamental writing skills applicable to drafting normative legal documents.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	1-3		
LAW	718	Economic Development in Indian Country	Focuses on the unique legal, economic, and political issues confronting tribal governments in developing diversified reservation economies.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	719	International Indigenous Rights	Examines the developments in recognizing indigenous rights in people's systems of international law.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	725	Critical Race Theory	Focuses on the idea of "race" as a social/political construct and examines the impact of American law on the construction of race. Provide historical and legal background necessary to understand the significance of race within American law and policy. Evaluate a number of legal frameworks that address issues of race and ethnicity in various contexts (e.g. segregation laws, civil rights law, federal Indian law, international human rights law). Assesses various jurisprudential accounts evaluating the ethical and moral underpinnings of the law. Critical race theory is known as a jurisprudential framework that is often critical of standard liberal approaches. Evaluates the critiques of liberalism and the scholarship of both liberal and critical theorists.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		
LAW	736	Advanced Legal Research Seminar	Focuses on a rigorous review of basic print and electronic resources and strategies for conducting legal research, federal/state.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	2-3		
LAW	737	Cults and Alternative Religions	Provides opportunity to study laws and policies governing cults. While the definition of a "cult" will be a topic of initial study in the seminar, it may be conceived of loosely as a group with a charismatic leader whose members are persuaded to relinquish their self-identities and material possessions in furtherance of the group's goals. In addition to analyzing the definition of a cult, the first part of the seminar discusses the various types of cults, studying particular cults, and learning about cultic activities. The remainder covers domestic and foreign legal and policy issues generated by cults, including the legal rights of cultic organizations, anti-cult organizations, cult members, and cult members' families. Covers conventional religions that are conceptually similar to cults, to the degree that religious movements fall outside the mainstream.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-4		
LAW	739	Economics and the Law Seminar	Explores premises of the law and economics movements and their applications to property, contract, and tort law.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	2-3		

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LAW	776	Indian Legal Clinic	Provides law students the opportunity to participate in cases dealing with native peoples and Indian issues.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	1-6		
LAW	777	Technology Ventures Clinic	Allows students to gain real-world experience in legal areas such as patentability of inventions, patent drafting, and technology valuation.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	1-6		
LAW	778	Immigration Law and Policy Clinic	Live-client clinic where students represent Latinos, particularly children, in immigration proceedings and the immigration courts.	N	LEC	N	LAW	College of Law	College of Law Dean's Office	1-6		
LAW	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	LAW	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OP6	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	515	Contracts	Explores common law legal method and the structure of Article 2 of the U.C.C. in the context of issues of contract formation.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3-5		
LAW	516	Criminal Law	Substantive law of crimes.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	517	Torts	Legal protections of personality, property, and relational interests against physical, economic, and emotional harms.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	518	Civil Procedure	Explores the structure of a lawsuit and techniques of alternative dispute resolution. Specific topics include commencement of suit, joinder of parties, discovery, pretrial motions, subject matter and personal jurisdiction, res judicata, collateral estoppel, and choice of law under the Erie doctrine.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3-5		
LAW	519	Legal Method and Writing	Examines methods used to analyze legal problems. Reviews precedent statutory construction and basic res judicata problems. Use of basic legal writing formats.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	520	Contracts	Continuation of LAW 515 focusing on contract interpretation.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	522	Constitutional Law I	Role of courts in the federal system, distribution of powers between state and federal governments, and the role of procedure in litigation of constitutional questions.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	523	Property	Indicia of ownership, found property, estates in land, landlord tenant, nonpossessory interests in property, nuisance, land use planning, and transfers of interests in property.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	524	Legal Advocacy	Continuation of LAW 519.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	526	Property	Nonpossessory interests in property (easements, covenants, servitudes); nuisance; land use planning; and transfers of interests in property.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	527	Civil Procedure	Continuation of LAW 518; addressed subjects in LAW 518 in greater depth as well as personal jurisdiction, res judicata, collateral estoppel, and choice of law under the Erie doctrine.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	529	Law and the Regulatory State	Introduces the importance, origins, and methods of interpreting statutes, regulations, and court rules.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	OP6	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	597	Visiting Student Program		N	LEC	N	GNA	College of Law	Sandra Day O'Connor College of Law	0.		
LAW	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OP6	College of Law	Sandra Day O'Connor College of Law	1-4		
LAW	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	601	Antitrust Law	Legislation and its implementation to prevent monopoly and business practices in restraint of trade, including restrictive agreements involving price-fixing, trade association activities, and resale price maintenance.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisites: College of Law student
LAW	603	Conflict of Laws	Problems arising when the operative facts of a case are connected with more than one state or nation. Choice of law, bases of jurisdiction, effect of foreign judgments, and underlying federal and constitutional issues.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		

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LAW	604	Criminal Procedure	Nature of the criminal procedural system with special focus on constitutional protections for the accused.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisites: College of Law student
LAW	605	Evidence	Principles and practice governing the competency of witnesses and presentation of evidence, including the rules of exclusion and roles of lawyer, judge, and jury under the adversary system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisites: College of Law student
LAW	606	Federal Income Taxation	Federal income tax in relation to concepts of income, property arrangement, business activity, and current tax problems, with focus on the process of tax legislation and administration.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisites: College of Law student
LAW	608	Business Associations I	Partnerships, limited partnerships, and small business corporations. Includes a brief introduction to accounting. Detailed analysis of the problems of forming a close corporation, state law duties of care and loyalty, management, dividends and redemptions, issuance of stock, internal dispute resolution, dissolution, and the general law of derivative actions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisites: College of Law student
LAW	609	Business Associations II	Interrelationship of federal and state law and a brief introduction to corporate finance (1933 Act). Broad overview of large company regulations including reporting rules, proxy regulation, insider trading, sale of control, tender offers and takeovers, and going private.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisites: College of Law student
LAW	610	Advanced Criminal Procedure	Topics in criminal procedure, with emphasis on legal constraints on grand jury investigations, police practices, pretrial release, preliminary hearings, prosecutorial discretion, and plea bargaining.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	611	Estate and Gift Tax	Tax laws relating to transfer of wealth both at death and during lifetime, including federal estate tax, gift tax, and income taxation of estates and trusts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: Must be College of Law student
LAW	612	Family Law	Legal and nonlegal problems that an individual may encounter because of a situation as a family member.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	613	Federal Courts	Federal judicial system; relationship of federal and state law; jurisdiction of federal courts and their relation to state courts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	615	Public International Law	Role of law in international disputes. Considers drafting and interpretation of treaties and multilateral conventions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	616	Jurisprudence	Introduces legal philosophy, with readings on the nature of law and legal reasoning, the relationship between law and morality and equality and social justice.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	617	Genetics and the Law	Provides background on genetics and recent genetic advances; addresses the legal consequences and issues associated with such advances.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	618	Decedent's Estates	Substantive concepts involved in transmitting wealth, including interstate succession, wills and will substitutes, the modern trust as a family protective device, creation of future interests in a planned estate, social restrictions of a nontax nature, and methods of devoting property to charitable purposes.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	619	Payments	Law of credit obligations and payment devices. Focuses on Articles 3, 4, and 4A of the Uniform Commercial Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	620	Civil Rights Legislation	Coverage of the rights and remedies provided by federal civil rights legislation, principally, the key provisions of the Reconstruction Era Civil Rights Acts, portions of the employment discrimination legislation, and voting rights legislation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	621	Sales	Advanced issues involving the formation and interpretation of sales and lease contracts. Focuses primarily on Articles 2 and 2A of the Uniform Commercial Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	622	Secured Transactions	Secured transactions under Article 9 of the Uniform Commercial Code and other relevant sections. Overview of the creation, perfection, and priority effects of security interests. Financing of business enterprise and consumer credit.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	623	Commercial Torts	Involves an analysis of actionable wrongs against a business entity or against proprietary rights held by that entity, covering the entire spectrum of private remedies for competitive wrongs.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	624	Community Property	Property rights of husband and wife; the Arizona community property system; homestead.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-2		Pre-requisite: College of Law student
LAW	625	Constitutional Law II	Fundamental protection for person, property, political, and social rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	627	Corporate Taxation	Problems in taxability of the corporation, corporate distributions, and corporate reorganizations.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	628	Creditor-Debtor Relations	Creditors' remedies in satisfaction of claims and debtors' protection and relief under bankruptcy, other laws.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student

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LAW	629	Employment Law	Employment law topics including testing, privacy, OSHA, FLSA, benefits, worker's compensation, rights to compensation, workplace emotional injuries, termination, and sexual harassment.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	630	Employment Discrimination	Focuses primarily on Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, and the Americans with Disabilities Act.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	631	Environmental Law	Litigation, administrative law, and legislation relating to problems of environmental quality. Topics covered may include air and water pollution, toxic substances, pesticides, and radiation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	632	Indian Law I	Inquiry into legal problems special to American Indians and tribes.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	633	Law, Litigation, and Science	Fills a gap in the education of most lawyers, namely, how to effectively think about and use empirical evidence.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	635	Juvenile Law	Special problems in the juvenile system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	636	Land Use Regulation	Legal problems in the regulation and control of land development by state and local governments. Administration of zoning, subdivision, and other planning controls; issues of fairness and procedure in the utilization of such controls.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	637	Lawyering Theory and Practice	Issues of competency and professionalism in the practice of law.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	4.		Pre-requisite: College of Law student
LAW	638	Professional Responsibility	Emphasizes the Model Rules and Model Code that govern the professional responsibility of lawyers and their interpretation and application.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	639	Natural Resource Law	Examines the constitutional basis for federal land management and the different kinds of public lands management schemes (e.g., parks, forests, wildlife refuges), emphasizing acquisition of right to, and regulation of, the different uses of public lands and resources (e.g., mining, grazing, timber, wildlife habitat, recreation).	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	640	Securities Regulation	Selected problems arising under the major statutes concerned with regulating the securities market.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	642	White Collar Crime	Examines the ways in which white collar crime is prosecuted, principally in the federal system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	643	Water Law	Acquisition of water rights; water use controls; interstate conflicts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	645	Patent Law	In-depth examination of substantive patent law as it applies to the commercialization and enforcement of patent rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	646	Copyright Law	Legal rights in original forms of human expression.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	647	Mass Tort Litigation	Examines unique procedural and substantive issues that arise in mass tort litigation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	648	International Intellectual Property	Considers patents, copyrights, and trademarks under international law and the major international treaties.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	649	Scientific Evidence	Examines the use of scientists and scientific tests or studies in criminal and civil litigation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	650	Health Law	Introduces health law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	651	Public Health Law	Addresses the relationship between the state and the population's health.	N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	652	Bioethics and the Law	Covers a range of issues relating primarily to human reproduction and life and death decisions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	653	Bankruptcy	Covers basic bankruptcy law and practices.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	654	Business Organizations	Covers the primary forms of business organizations: partnerships, limited partnerships, limited liability companies, and corporations.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	655	Chapter 11	Covers the law and practice of reorganizing business entities under Chapter 11 of the United States Bankruptcy Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	656	Valuing Real Estate and Closely-Held Businesses	Focuses on the valuation of interests in real property and closely-held businesses.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	657	Private Property Rights	Explores the conflict between property rights and the right of the government to acquire private property for public use.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	658	Arizona Constitutional Law	Examines the basic provisions of the Arizona Constitution and the judicial decisions interpreting those provisions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre Requisites: Law Students Only
LAW	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LAW	697	Visiting Student Program		N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	0.		
LAW	701	Arbitration	Examines the Federal Arbitration Act and the Uniform Arbitration Act as it has been adopted in Arizona.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	702	Alternative Dispute Resolution	Broad exposure to methods of settling disputes in our society such as mediation, arbitration/conciliation, and negotiation, including examination of the current litigation model.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	703	Law, Science, and Technology	Legal mechanisms used in dealing with various issues raised by contemporary science and technology. Explores current legal responses to science and technology.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	704	Indian Law II	Surveys the federal legal doctrines surrounding Indian ownership and exploration of resources.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	705	Media Law	Examines First Amendment principles and statutory and regulatory requirements with respect to the conventional print and broadcast media, as well as recent technologies such as cable.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	706	Immigration Law	Explores political, economic, social, and legal issues concerning immigration. Specific topics covered include citizenship and naturalization, denaturalization, deportation, and refugee rights and asylum.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	707	Elder Law	Looks at legal and policy questions related to aging individuals and an older society.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	708	Gender, Sexuality, and the Law	Examines assumptions made in the law about gender and sexuality and the impact of those assumptions on the application of the law.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	709	International Human Rights	International rules and procedures governing the protection of human rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	710	Real Estate Tax Planning	Discusses topics, including but not limited to real estate investments as tax shelters, alternative acquisition finance devices, refinancing techniques, and nontaxable exchanges.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	712	Religion and the Constitution	In-depth study of the establishment and free exercise clauses of the First Amendment to the U.S. Constitution.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	713	Tribal Law and Government	Analyzes particular problems in tribal law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	715	Sports Law	Unique legal problems relating to professional sports, including their relationship to antitrust laws, the nature of player contracts, and associated tax problems.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	720	Indian Gaming Law	Surveys the law surrounding the Indian gaming industry.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	721	Education and the Law	Current legal problems affecting institutions of higher education, faculty, students, and governing boards.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	722	Mexican Law	Comparative overview of Mexican law. Poses questions regarding the proper role and function of a legal system.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	723	Cultural Resources Law	Focuses on the protection of Native American cultural resources and religions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	724	Privacy	Traces the development of privacy law with special attention to contemporary challenges.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	733	Negotiation	Explores alternative models of negotiated dispute resolution, as well as the roles of lawyer and client in the negotiation process. Extensive use of simulation exercises.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	734	Products Liability	Traces the development of products liability law; analyzes the major issues currently confronting the courts in this area.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	735	Writing TA	Legal writing teaching assistants assist a writing professor with various tasks throughout the semester.	N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	738	Trial Advocacy	Confronts issues of trial advocacy through simulation of a variety of aspects of trial practice in a mock court setting.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	745	The Supreme Court	Intensive examination of selected current decisions of the U.S. Supreme Court.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	768	International Business Transactions	Introduction to U.S., foreign, and international law regulating cross-border business transactions and to the structure of cross-border business deals.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	770	Law Journal	Academic credit for successful completion of editorial work by a member of the staff of Arizona State Law Journal. May be repeated for credit for a maximum of 5 semester hours.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		Pre-requisite: College of Law student
LAW	771	Jurimetrics Journal	Academic credit for successful completion of editorial work by a member of the staff of the Jurimetrics Journal of Law, Science, and Technology.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	1-3		Pre-requisite: College of Law student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LAW	772	Defender Clinic	Placement in the Public Defender Clinic and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	773	Civil Justice Clinic	Placement in the Civil Practice Clinic and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	774	Criminal Practice Clinic	Placement with various prosecutor offices in the Phoenix area and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	775	Mediation Clinic	Study of the mediation process and experience as mediators in cases pending before the justice courts and administrative agencies.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	781	Independent Study	With the approval of a faculty member, a student may research a legal subject of special interest and prepare a paper suitable for publication.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	782	Independent Study	See LAW 781.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	783	Field Work	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	785	Externship	Supervised, practical lawyering in an external placement proposed by the student or established by a sponsoring agency and approved by the Sandra Day O'Connor College of Law. In addition, an associated academic component is established by the student with a member of the faculty.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	795	Cont Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	College of Law	Sandra Day O'Connor College of Law	1.		
LAW	797	Visiting Student Program		N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	0.		
LDE	361	Landscape Architecture I	Site planning: analysis of natural and cultural features; site systems and implications for plan making and design. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture students only; Co-requisites: LTC 343
LDE	362	Landscape Architecture II	Site design: site-specific design of configured space by the creative development of form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 361 (or PLA 361) with C or better
LDE	363	Landscape Planting Design	Functional and aesthetic use of plants in arid-region landscape design. Explores design philosophies through planting design problems.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Landscape Architecture student; Co-requisites: LTC 344, LDE 461
LDE	461	Landscape Architecture III	Landscape ecological planning: collection and application of ecological data relevant to planning and design at landscape scale. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 362 with C or better; Co-requisites: LTC 344; LDE 363
LDE	462	Landscape Architecture IV	Advanced landscape architecture: integrative capstone studio with multifaceted design problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 461 with C or better; Co-requisite: LTC 446; LPH 411
LDE	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
LDE	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
LDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LDE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LES	305	Legal, Ethical, and Regulatory Issues in Business	Legal theories, ethical issues, and regulatory climate affecting business policies and decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W. P. Carey BA or BS student, OR non-business student with minimum 2.5 ASU cum GPA, and minimum 2.5 ASU business GPA, and minimum 56 earned hours, OR be a non-degree or Graduate student.
LES	306	Business Law	Legal and ethical aspects of contracts, sales, commercial paper, secured transactions, documents of title, letters of credit, and bank deposits and collections.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-Requisites: Student in Accountancy; Global Management student in Conditional or Professional Business status
LES	380	Consumer Perspective of Business Law	Role of law as it affects society. Uses case studies to present principles that govern business and consumers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Must have a minimum GPA of 2.00; must have a minimum total earned hours of 56 or be a graduate or non-degree seeking student
LES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: Minimum 2.00 GPA; Minimum 56 hours OR Non-degree seeking student
LES	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
LES	532	Negotiation Agreements	Develops negotiation competencies to build partnerships and create lasting agreements with internal/external customers, suppliers, work teams, and external constituencies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: MBA student
LES	579	Legal and Ethical Issues for Business	Managerial decision making within the bounds of ethics, social responsibility, and legal and regulatory constraints. Strong international focus.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA student
LES	581	Essentials of Law for Managers	Studies legal components of business decisions, multiple aspects of law affecting business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1.5-3		
LES	582	Ethical Issues for Managers	Studies ethical decisions; the role of business in society.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1.5-3		
LES	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	305	Legal, Ethical, and Regulatory Issues in Business	Legal theories, ethical issues, and regulatory climate affecting business policies and decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BA or BS student, OR non-business student with minimum 2.5 ASU cum GPA, and minimum 2.5 ASU business GPA, and minimum 56 earned hours, OR be a non-degree or Graduate student.
LES	411	Real Estate Law	Legal and ethical aspects of land ownerships, interests, transfer, finance development, and regulations of the real estate industry.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Business professional status; Co-requisites: BUS 451 and REA 441
LIA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
LIA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
LIA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6	L	Pre-requisites: Must be an Honors student
LIA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-14		
LIA	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
LIA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LIA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	301	International Organizational Behavior	Educates students to lead others in the intra- and interorganizational relationships in multinational firms operating in complex global environments. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management and Leadership student in the Leadership in International Management plan with either a Professional or Conditions status.
LIM	303	Negotiation and Conflict Resolution Strategies Across Cultures	Explores the impact of cultural differences on international negotiations and subsequent application of this knowledge to conflict resolution processes. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	401	Advanced Topics in International Leadership	Provides an overview of the most current leadership theories and practices to develop students as leaders in crosscultural contexts. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
LIM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-7		
LIM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		
LIN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	510	Linguistics	Overview of linguistics, its subfields, and some of its applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Students who have credit for BLE 537, may not enroll in LIN 510
LIN	511	Phonetics and Phonology	Current trends in phonological theory and its basis in acoustic and articulatory phonetics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	513	Semantics	Current approaches to linguistic meaning with particular attention to English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	514	Syntax	Analyzes syntactic structures using a generative theoretical model with a focus on English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	515	American English	Development of the English language in America, including regional and social varieties, and its relationship to other immigrant and native languages.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	516	Pragmatics and Discourse Analysis	Studies language use in context and language structures in spoken and written texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	517	History of the English Language	Surveys the development of the English language, with an emphasis on major linguistic transformations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	520	Second-Language Acquisition Theories	Theories of second-language acquisition, including the linguistic, cognitive, and sociocultural aspects.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	521	Methods of Teaching English as a Second Language	Methods of teaching English as a second language, language teaching trends, practical applications, and the teaching of different skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	522	Grammar for TESL	Surveys major grammatical structures in English and how they can be taught to ESL speakers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	523	Language Testing and Assessment	Introduces the theory and practice of language test construction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	524	Curriculum Design and Materials Development	Practical guide to curriculum and materials development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		

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LIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
LIN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
LIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of English	1-12		
LIN	610	Advanced Studies in Linguistics	Different topics such as morphology, semantics, typology, history of linguistics.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	614	Advanced Studies in Syntax	Focuses on morphosyntactic feature checking, movement, phrase structure, and their crosslinguistic differences. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	615	Advanced Studies in Sociolinguistics	Language in its social setting, e.g., social variation among native speakers, sociolinguistics aspects of second-language acquisition, and language policy.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	616	Advanced Studies in Discourse Analysis	Advanced analysis of spoken and written discourse emphasizing different methodological and theoretical issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	617	Advanced Studies in Historical Linguistics	Overview of theories on language change, the history of languages, and of methods in historical linguistics.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	620	Advanced Studies in Second-Language Acquisition	Selected topics in second-language acquisition, such as phonetics and phonology, morphology, syntax, and discourse.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	655	Disciplinary Discourses	Investigation of professional and disciplinary issues related to English studies.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	656	Studies in Cross-Cultural Discourse	Theoretical and methodological issues in the comparative study of discourses between cultures and communities of practice.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-15		
LIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
LIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of English	1-15		
LIS	510	Computers and Technology in the School Library	Library uses of technology and computers. Fundamental concepts and issues in library media centers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	533	Current Library Problems	Critical analysis of current practices and problems in school librarianship.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	540	Classification and Cataloging	Descriptive cataloging and Dewey Decimal Classification of print and nonprint library materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	561	Selection of Library Materials	Principles and procedures used in the selection of materials for the school library.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LIS	565	Literature for Hispanic Youth/Literatura para Jóvenes Hispanoparlantes	Selects, analyzes, and utilizes literature for Hispanic and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	571	Basic Reference Resources	Provides reference service in the school library. Content and use of basic resources.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	581	School Library Administration	Administration of K-12 libraries and media centers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LNP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LNP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LNP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LNP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LNP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	310	History of Landscape Architecture	Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	
LPH	311	Contemporary Landscape Architecture	Explores concerns, projects, and movements in landscape architecture of late 20th-century understanding: social, ecological, regional, and historical influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
LPH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	411	Landscape Architecture Theory and Criticism	Critically analyzes landscape architecture theories and projects to evaluate validity of design and contribution to society.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	L	Pre-requisites: Landscape Architecture; LDE 461 and LPH 311 with C or better; Co-requisites: LDE 462 and LTC 446
LPH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LPH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LSC	241	Human Genetics	Introduces basic concepts of human heredity and cytogenetics, including Mendelian, molecular, and population genetics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	300	Modes of Biological Thought	Involves students in the process of biological discovery to examine how we identify truth in biological science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed ENG101 or ENG105 and BIO181 or BIO188 and BIO182 or BIO187 with a grade of C or greater or be currently enrolled.
LSC	301	Life Sciences: History and Method	Integrates philosophy, history, and methods of the life sciences. Includes issue of underrepresentation of minorities in science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
LSC	305	Biology Behind the Crime Scene	Explores biological technology behind forensic techniques like fingerprinting, Polymerase Chain Reaction (PCR), and paternity testing. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	Pre-requisites: Minimum Sophomore standing
LSC	307	Comparative Plant Diversity	Surveys major groups of green plants, emphasizing evolutionary history from morphology, the fossil record, and molecular phylogenies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed ENG 101 or ENG 105 and BIO 100 or BIO 182 or BIO 187 with a grade of C or greater or be currently enrolled.
LSC	308	Plant Physiology	Concepts of plant function: carbon metabolism, energy acquisition, regulation of growth and development, stress responses, and water and nutrient uptake. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LSC	309	The Flora of Arizona	Principles of taxonomy; identification of Arizona plants. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO 182 or BIO 187 and BIO 181 or BIO 188 with a grade of C or greater or be currently enrolled
LSC	310	Natural History of Arizona	Plant and animal communities of Arizona. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SG	
LSC	311	Field Natural History	Organisms and their natural environment. Cannot be used for major credit in the biological sciences. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SG	Pre or Co-requisites: LSC 310 (with C or better if completed)
LSC	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO 181 or 188 and CHM 113 and CHM 115 or 116 with a grade of C or greater or be currently enrolled.
LSC	322	Fundamentals of Ecology Laboratory	Investigational field course on fundamental concepts in ecology. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: must have completed LSC320 with a C or greater or be currently enrolled, or be co-enrolled in LSC320
LSC	331	Animal Behavior	Evolutionary, genetic, physiological, and ecological bases of animal behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed BIO187 with a grade of C or greater or be currently enrolled.
LSC	332	Research Techniques in Animal Behavior	Experimental and field studies of animal behavior; description and qualification of animal behavior and interpretation of behavior within an evolutionary framework. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: must have completed LSC331 with a grade of C or greater or be currently enrolled or be co-enrolled in LSC331.
LSC	342	Hormones and Behavior	Examines the short-term and long-term effects of hormones on the behavior of animals, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 181 or 188 and BIO 182 or 187 with a grade of C or greater or be currently enrolled.
LSC	345	Organic Evolution	Processes of adaptive change and speciation in sexual populations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 187 and BIO 188 with a grade of C or greater or be currently enrolled.
LSC	347	Fundamentals of Genetics	Science of genetics, gene flow, and genetic engineering in humans and other organisms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 181 or 188 and BIO 182 or 187 and CHM 115 or 116 or be currently enrolled.
LSC	348	Fundamentals of Genetics Laboratory	Investigational lab using modern molecular techniques to analyze various genetic phenomena. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: must have completed BIO 187, BIO 188, CHM 113, and CHM 116 with a grade of C or greater and be co-enrolled in LSC 347.
LSC	350	Premedical Professional Seminar	An opportunity for students who anticipate a career in any area of medicine to explore the realities of the field.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO 181 or 188, BIO 182 or 188, BIO 353 or LSC 353, and BIO 340 or LSC 347 with C or better
LSC	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 181 or 188, BIO 182 or 182, and CHM 115 or 116 or be currently enrolled.
LSC	354	Developmental Anatomy Lab	Experimental studies of developmental processes in animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	355	Cell Biology Laboratory	Investigational lab using modern molecular and cellular techniques to analyze molecular, biochemical, and anatomical traits of cells. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisite: must have completed LSC353 with a grade of C or greater or be currently enrolled or be co-enrolled in LSC353.
LSC	358	Animal Physiology Lecture	Physiological mechanisms of the higher vertebrates.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO187, BIO188, and CHM116, and one of the following MAT courses: MAT 117, 119, 170, 210, 270, or 271 with a grade of C or greater or be currently enrolled.
LSC	359	Animal Physiology Laboratory	Investigative lab experience using animals (including humans) and models. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: must have completed LSC358 with a C or greater or be currently enrolled or be co-enrolled in LSC358.
LSC	360	The Biology of Human Experience	Introduces the evolutionary origins and characteristics of humans as they are reflected in morphology, physiology, ecology, and behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO187 and BIO188 with a grade of C or greater or be currently enrolled.
LSC	361	Human Sexual Biology	Human sexuality from a biological and integrative perspective, including comparisons to other vertebrates and examination of social, behavioral, and physiological factors. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	362	The Human Environment	Evolution of humans' physiological, ecological, and behavioral interaction with their environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	363	Genes, Race, Gender, and Society	Examines biological events and theories on race and gender and their interface with societal views.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	Pre-requisites: BIO 182 (or BIO 187), BIO 181 (or BIO 188), BIO 340 (or LSC 347), LSC 353 and CHM 234 with C or better
LSC	365	The Human Organism	Analyzes human anatomy, physiology, and behavior in an ecological and evolutionary context with the methods of comparative biology. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
LSC	366	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems; and the relationship of these processes to energy production and utilization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed CHM237, CHM238, CHM233, and CHM234 with a grade of C or greater or be currently enrolled.
LSC	367	Elementary Biochemistry Laboratory	Quantitative analysis of constituents of biological systems, enzyme assays, protein purification, and metabolic studies. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: Must be co-enrolled in LSC366
LSC	370	Vertebrate Zoology	Characteristics, classification, evolution, and natural history of the major groups of vertebrate animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO 187 and BIO 188 with a grade of C or greater or be currently enrolled.
LSC	380	Medical Parasitology	Parasitic diseases of humans, including life cycle events and clinical manifestations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed LSC353/BIO353 or LSC385/BIO385 with a grade of C or greater or be currently enrolled.
LSC	385	Invertebrate Zoology	Characteristics, life cycles, adaptations, and evolution of invertebrate animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO182/182 and BIO188/181 with a grade of C or greater or be currently enrolled.
LSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LSC	408	Population Biology	Theoretical and applied aspects of distribution and abundance, population regulation, genetic flow, and interactions among populations, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	415	Biometry	Statistical methods applied to biological problems, design of experiments, estimation, significance, analysis of variance, regression, correlation, chi square, and bioassay; the use of computers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	CS	Pre-requisites: must have completed MAT 210 or MAT 270 or MAT 271 AND LSC320 and LSC322 with a grade of C or greater or be currently enrolled.
LSC	422	Introductory Immunology	Fundamental concepts in research and medicine. Cellular immunity, antibody and antigen, immunogenetics, immunoregulation, hypersensitivity, clinical immunology, and nervous-immune system interactions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed CHM233/331 and LSC353 or BIO353 with a grade of C or greater or be currently enrolled.
LSC	430	Environmental and Human Toxicology	Lecture/fieldwork course investigating toxic substances in the environment and their effect on the health of organisms, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO187/182, BIO188/181, and CHM116/115 with a grade of C or greater or be currently enrolled.
LSC	432	Fundamentals of Pharmacology	Aspects of pharmacology using an integrated approach to familiarize students with natural and synthetic therapeutic agents used in medicine.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed either BIO353, LSC353, or LSC359 with a grade of C or greater or be currently enrolled.
LSC	434	Marine Ecology	Examines ecological processes in oceans, seas, and estuaries that emphasizes species- and community-level phenomena.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO187/182, BIO188/181, and LSC320 with a grade of C or greater or be currently enrolled.
LSC	443	Applied Molecular Genetics and Genomics	Nature and function of the gene; emphasizes the molecular genetic disease states; molecular biology; regulation of gene expression; genomics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: LSC 347 with C or better; CHM 233 or 331 with C or better; CHM 237 or 335 with C or better
LSC	444	Fundamentals of Microbiology	Overview of microorganisms; their anatomy, physiology, genetics, metabolic diversity, and ecological significance. Not open to students with credit in MIC 205.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed LSC353 with a grade of C or greater or be currently enrolled.
LSC	445	Fundamentals of Microbiology Laboratory	Principles and lab techniques used in culturing, identifying, and analyzing microorganisms. Not open to students with credit in MIC 206. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisite: must have completed LSC444 with a grade of C or greater or be currently enrolled or c-enrolled in LSC444.
LSC	447	Molecular Genetics Laboratory	Investigative lab involving DNA isolation, PCR, gel electrophoresis, enzyme digestion and ligation, transformation, and hybridization analysis. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	450	Premedical Externship	Provides hands-on experience in a hospital setting for premedical students.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: LSC 350 with C or better
LSC	453	Animal Histology	Microscopic study of animal tissues. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO188/181, BIO187/182, and LSC353/BIO353 with a grade of C or greater or be currently enrolled.
LSC	471	Ornithology	The biology of birds. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed LSC370 with a grade of C or greater or be currently enrolled.
LSC	473	Ichthyology	Systematics and biology of recent and extinct fishes. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	Pre-requisites: must have completed ENG101/105 and LSC370 with a grade of C or greater or be currently enrolled.
LSC	474	Herpetology	Systematics and biology of recent and extinct reptiles and amphibians. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed LSC370 with a grade of C or greater or be currently enrolled.
LSC	482	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: must have completed 20 hours of Biological Sciences courses (BIO/LSC).
LSC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	486	Peer Mentoring in the Life Sciences	Advanced students learn and apply mentoring skills in teaching labs.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	492	Honors Directed Study		N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6		
LSC	493	Honors Thesis		N	SEM	N	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6	L	Pre-requisites: Must be an Honors student
LSC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-7		
LSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
LSC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LAB	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LSC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LAB	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LTC	343	Landscape Construction I	Landscape constructions focusing on landform transformations. Topics include landform analysis, grading, and earthwork.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: LDE 361
LTC	344	Landscape Construction II	Characteristics of materials and methods used in landscape architectural construction.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Landscape Architecture student; LTC 343 with C or better; Co-requisites: LDE 363 and 461
LTC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LTC	446	Landscape Construction III	Landscape construction focusing on low-technology, biotechnical, regional, and experimental techniques or systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
LTC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LTC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LTC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LWU	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1.		Pre-requisites: Freshman standing
LWU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LWU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LWU	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Law	Sandra Day O'Connor College of Law	1-12		
LWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
MA	513	Algebraic Topology	Rigorous introduction to graph theory. High-level mastery in topics such as trees, cycles, matchings, planarity, connectivity, hamiltonicity, chromatic number, Ramsey theory with emphasis on proof techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAE	100	Introduction to Mechanical and Aerospace Engineering	Introduces mechanical and aerospace engineering, design process, teaming, the profession of mechanical and aerospace engineering, computer models in engineering, communication skills, CAD tools, and programming tools. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2.		Pre-requisites: Aerospace or Mechanical Engineering student
MAE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-3		Pre-requisites: MAE Freshman student
MAE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAE	212	Engineering Mechanics	Force systems, resultants, moments and equilibrium. Kinematics and kinetics of particles, systems of particles and rigid bodies. Energy and momentum principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Mech & Aero student; PHY 121 C or better; Pre/Co-requisite: MAT 274 or 275 C or better OR Non Mech & Aero student; PHY 121; Pre/Co-requisite: MAT 274 or 275
MAE	213	Solid Mechanics	Equilibrium, strain-displacement relations, and stress-strain-temperature relations. Applications to force transmission and deformations in axial, torsional, and bending of bars. Combined loadings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: CEE 210, CEE 211 or MAE 212 with C or better; MAT 274 (or 275) with C or better
MAE	214	Computer-Aided Engineering I	Introduces geometry and construction techniques in CAD, technical drawing conventions, generating drawings from CAD models. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		Pre-requisites: A grade of C or better in MAE 212 or (ECE 212 or ECE 214) OR be co-enrolled in MAE 212.
MAE	240	Thermofluids I	Introductory concepts of thermodynamics, fluid mechanics, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Mechanical & Aerospace Engr students with MAE 212 (or ECE 212 or ECE 214) with C or better or CEE 211 with D or better OR Non MAE students with CEE 211, MAE 212 (or ECE 212 or ECE 214) with D or better
MAE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6		
MAE	313	Aircraft Dynamics and Control	Aircraft static stability; equations of motion; dynamic modes and stability; stability derivatives; response to controls; introduces automatic control of aircraft.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MAE 318 and MAE 360 with C or better
MAE	318	Sensors and Controls	Introduces measurement systems, feedback control modelling and dynamics of physical systems, computer simulations and real-time experiments. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	5.		Pre-requisites: Engineering BS/BSE student; MAE 212 or CEE 211 with a C or better; EEE 202 with a C or better
MAE	322	Structural Mechanics	Three-dimensional stress analysis, failure theories, energy methods, finite elements, torsion of noncircular members, unsymmetrical bending, beam column, fatigue and fracture. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE student; MAE 213, MAT 343, & MAE 384 with C or better, (or co-enrolled in MAE 384)
MAE	323	Computer-Aided Engineering II	Introduces finite-element analysis, pre- and postprocessing, solving problems with FEA. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2.		Pre-requisites: Engineering BS/BSE student; MAE 214 with D or better; Pre- or Co-requisite: MAE 322 (with D or better if completed)
MAE	340	Thermofluids II	Intermediate concepts of thermodynamics, fluid mechanics, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 240 with a C or better; Pre/Co-requisite: MAE 384
MAE	341	Mechanism Analysis and Design	Positions, velocities, and accelerations of machine parts; cams, gears, flexible connectors, and rolling contact; introduces synthesis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; MAE 212 with a C or better
MAE	342	Principles of Mechanical Design	The design process; conceptual and embodiment design of mechanical elements; form synthesis; material selection, failure modes, manufacturability tolerances, common mechanisms and machine elements. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with C or better; MAE 322 with C or better; Pre/Co-requisite: MAE 318 (with C or better if completed)
MAE	344	Fundamentals of Aerospace Design	Design theory and design tools applied to aerospace engineering. Engineering drawings, solid modeling, RFP's, Federal Aviation Regulations and military specifications, aircraft sizing, rapid prototyping. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MAE 214, 322, 360 and 384 with a C or better
MAE	345	Structures in a Space Environment	Space mission environment; mechanical behavior of materials and structures for space; analysis and design of space structures; finite element procedures.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students; MAE 213 and MAE 384 with C or better; Pre or Co-requisites: MAE 318 (with C or better if completed)
MAE	351	Manufacturing Processes	Production technique and equipment. Casting and molding, forming, machining, joining and assembly, computer-integrated manufacturing, rapid prototyping, and electronics manufacturing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with C or better; Credit is allowed for only IEE 360 or MAE 351
MAE	360	Aerodynamics	Airfoils and wings, ideal flow, panel methods, boundary layers, finite-difference solutions, wind-tunnel testing. Both MAE 362 and MAE 360 must be taken to secure L General Studies credit. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.	L	Pre-requisites: Engineering BS/BSE students; MAE 240 with C or better; ENG 102, 105 or 108 with C or better; MAE 384 or CEE 384 with C or better or Co-requisite: MAE 384
MAE	362	High-Speed Aerodynamics	Compressible flow at subsonic and supersonic speeds; ducts, nozzles, and diffusers; normal and oblique shocks, transonic flow, numerical solutions; experimental applications. Both MAE 362 and MAE 360 must be taken to secure L General Studies credit. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.	L	Pre-requisites: Engineering BS/BSE students; MAE 240 and MAE 384 with C or better
MAE	372	Fluid Mechanics	Applies basic principles of fluid mechanics to problems in viscous and compressible flow.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 360 with C or better; MAE 384 with C or better
MAE	382	Thermodynamics	Applied thermodynamics; gas mixtures, psychrometrics, property relationships, power and refrigeration cycles, and reactive systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 240 with C or better
MAE	384	Numerical Methods for Engineers	Numerical methods and computational tools for selected problems in engineering. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	CS	Engineering BS/BSE student; Mech & Aero students with MAT274 or 275 & MAT343(or MAT 242) C or better OR Non Mech & Aero with MAT274 or 275 & MAT242, 342 or 343(C or better); Pre or Co-req: MAT272 (or MAT267 w/C or better). Credit only for MAE384 /CEE384

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MAE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		Pre-requisites: Engineering BS/BSE student
MAE	400	Engineering Profession	Impact of mechanical and aerospace engineering in a global and societal context; effects of and on globalization, environment, sustainability, economy, politics; engineering ethics and business practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Aerospace Engineering or Mechanical Engineering BSE Seniors; MAE 342 or MAE 362 completed with a C or better
MAE	404	Finite Elements in Engineering	Introduces ideas and methodology of finite element analysis. Applications to solid mechanics, heat transfer, fluid mechanics, and vibrations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 213 or a grade of C or better in ECE 313 AND a grade of D or better in CEE 384, MAE 384 or ECE 384.
MAE	406	CAD/CAM Applications in MAE	Solution of engineering problems with the aid of state-of-the-art software tools in solid modeling, engineering analysis, and manufacturing; selection of modeling parameters; reliability tests on software. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 342, 344, 441 or 444.
MAE	415	Vibration Analysis	Free and forced response of single and multiple degree of freedom systems, continuous systems; applications in mechanical and aerospace systems numerical methods. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 213 with C or better; CEE 384 or MAE 384 with C or better
MAE	417	Control System Design	Tools and methods of control system design and compensation, including simulation, response optimization, frequency domain techniques, state variable feedback, and sensitivity analysis. Introduces nonlinear and discrete time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better
MAE	426	Design of Aerospace Structures	Flight vehicle loads, design of semimonocoque structures, local buckling and crippling, fatigue, aerospace materials, composites, joints, and finite element applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 322 with C or better
MAE	434	Internal Combustion Engines	Performance characteristics, combustion, carburetion and fuel-injection, and the cooling and control of internal combustion engines. Computer modeling. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 382 with C or better
MAE	435	Turbomachinery	Design and performance of turbomachines, including steam, gas and hydraulic turbines, centrifugal pumps, compressors, fans, and blowers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 340, 360 361 or 371
MAE	436	Combustion	Thermochemical and reaction rate processes; combustion of gaseous and condensed-phase fuels. Applications to propulsion and heating systems. Pollutant formation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 with C or better
MAE	442	Mechanical Systems Design	Applies design principles and techniques to the synthesis, modeling, and optimization of mechanical, electromechanical, and hydraulic systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better; MAE 342 or MAE 344 with C or better
MAE	446	Energy Systems Design	Applies mechanical engineering principles and techniques to modeling, analysis, and synthesis of energy systems and components. Design optimization. Design project.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 with C or better; MAE 382 with C or better
MAE	447	Robotics and Its Influence on Design	Robot applications, configurations, singular positions, and work space; modes of control; vision; programming exercises; design of parts for assembly.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better
MAE	455	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better or currently enrolled; CEE 213, MAE 213 or MSE 211 with D or better or currently enrolled; MAT 343, MAT 242 or MAT 342 with D or better or currently enrolled
MAE	462	Space Vehicle Dynamics and Control	Attitude dynamics and control, launch vehicles, orbital mechanics, orbital transfer/rendezvous, space mission design, space structures, spacecraft control systems design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better
MAE	463	Propulsion	Fundamentals of gas-turbine engines and design of components. Principles and design of rocket propulsion and alternative devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 362 with C or better; MAE 384 with C or better
MAE	465	Rocket Propulsion	Rocket flight performance; nozzle design; combustion of liquid and solid propellants; component design; advanced propulsion systems; interplanetary missions; testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE plans; MAE 340 or MAE 362 with C or better
MAE	466	Rotary Wing Aerodynamics and Performance	Introduces helicopter and propeller analysis techniques. Momentum, blade-element, and vortex methods. Hover and forward flight. Ground effect, autorotation, and compressibility effects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 360 with C or better
MAE	468	Aerospace Systems Design	Group projects related to aerospace vehicle design, working from mission definition and continuing through preliminary design. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Engineering BS/BSE students; MAE 313 with a C or better; MAE 344 with C or better; Pre-or Co-requisite: MAE 463 with C if completed
MAE	469	Projects in Astronautics or Aeronautics	Various multidisciplinary team projects available each semester. Projects include design of high-speed rotocraft autonomous vehicles, liquid-fueled rockets, microaerial vehicles, satellites. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student
MAE	471	Computational Fluid Dynamics	Numerical solutions for selected problems in fluid mechanics. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 360 with C or better; MAE 384 or ECE 384 with C or better
MAE	480	Space Systems Design	Group projects related to space systems design, working from mission definition and continuing through conceptual design. Integrated lecture/lab.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; C or better in MAE 214, MAE 345, MAE 465, and EEE 304, or be co-enrolled in EEE 304

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MAE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	488	Mechanical Engineering Design I	Conceptual and embodiment design; modeling; rapid prototyping. Team project. MAE 488 and 489 must be taken in consecutive semesters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in MAE 340 AND a grade of C or better in MAE 342
MAE	489	Mechanical Engineering Design II	Detail design; fabrication and testing. Team project. MAE 488 and 489 must be taken in consecutive semesters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 488 completed with a D or better or currently enrolled
MAE	491	Experimental Mechanical Engineering	Experimental and analytical studies of phenomena and performance of fluid flow, heat transfer, thermodynamics, refrigeration, and mechanical power systems. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Engineering BS/BSE students; MAE 318 with D or better; MAE 340 with D or better
MAE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6		
MAE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6	L	Pre-requisites: Must be an Honors student.
MAE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-7		Pre-requisites: Engineering students
MAE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-3		
MAE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	501	Linear Algebra in Engineering	Development and solution of systems of linear algebraic equations. Applications from mechanical, structural, and electrical fields of engineering.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students only
MAE	502	Partial Differential Equations in Engineering	Development and solution of partial differential equations in engineering. Applications in solid mechanics, vibrations, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students only
MAE	504	Experimental Methods for Thermal and Fluid Processes	Theory and application of optical diagnostics and microsensors for characterizing thermofluid processes. Measurements include laser spectroscopy, velocimetry, particle sizing, and surface properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	505	Perturbation Methods	Nonlinear oscillations, strained coordinates, renormalization, multiple scales, boundary layers, matched asymptotic expansions, turning point problems, and WKBJ method.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; Credit is allowed for only APM 575 or MAE 505
MAE	506	Advanced System Modeling, Dynamics, and Control	Lumped-parameter modeling of physical systems with examples. State variable representations and dynamic response. Introduces modern control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; MAE 501 with C or better.
MAE	507	Optimal Control	Optimal control of systems. Calculus of variations, dynamic programming, linear quadratic regulator, numerical methods, and Pontryagin's principle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; MAE 506 with C or better
MAE	510	Dynamics and Vibrations	Lagrange's and Hamilton's equations, rigid body dynamics, gyroscopic motion, and small oscillation theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students
MAE	512	Random Vibrations	Reviews probability theory, random processes, stationarity, power spectrum, white noise process, random response of single and multiple DOF systems, and Markov processes simulation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2-3		Pre-requisites: Graduate Engineering student; CEE 536, MAE 510 or MAE 515 with C or better or currently enrolled
MAE	515	Structural Dynamics	Free vibration and forced response of discrete and continuous systems, exact and approximate methods of solution, response spectra, computational techniques, special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 510 completed with a C or better or currently enrolled
MAE	520	Stress Analysis	Introduces tensors: kinematics, stress analysis, and constitutive assumptions leading to elastic and plastic behavior. Strain energy and energy methods; applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	521	Structural Optimization	Linear and nonlinear programming. Problem formulation. Design sensitivity analysis. FEM-based optimal design of structural and mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 501 with C or better; CEE 526 or MAE 527 with a C or better

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MAE	523	Fracture Mechanics	Linear elastic fracture mechanics. Nonlinear problems. Fatigue fracture. Experimental methods in fracture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; CEE 521 or MAE 520 with C or better
MAE	524	Theory of Elasticity	Elastic behavior in two and three dimensions. Airy stress functions and displacement potentials. Elements of fracture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 520 with C or better
MAE	525	Mechanics of Smart Materials and Structures	Modeling and analysis of smart materials and adaptive structures. Application areas include vibration and shape control and damage detection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 510 with C or better
MAE	527	Finite Elements for Engineers	Direct stiffness, method of weighted residuals, weak formulation, and variational techniques in the solution of engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 501 with C or better
MAE	536	Combustion	Thermodynamics; chemical kinetics of combustion. Explosion and ignition theories. Reactive gas dynamics. Structure, propagation, and stability of flames. Experimental methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	540	Advanced Product Design Methodology	Surveys research in engineering design process, artifact and design, knowledge, formal and informal logic, heuristic and numerical searches, theory of structure and complexity.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	541	CADTools for Engineers	Elements of computer techniques required to develop CAD software. Data structures, including lists, trees, and graphs. Computer graphics, including 2- and 3-D algorithms and user interface techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	544	Mechanical Design and Failure Prevention	Modes of mechanical failure; applies principles of elasticity and plasticity in multiaxial state of stress to design synthesis; failure theories; fatigue; creep; impact.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	546	CAD/CAM Applications in MAE	Solution of engineering problems with the aid of state-of-the-art software tools in solid modeling, engineering analysis, and manufacturing; selection of modeling parameters; reliability tests on software. Open only to students without previous credit for MAE 406.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Graduate Engineering student
MAE	547	Mechanical Design and Control of Robots	Homogeneous transformations, 3-D kinematics, geometry of motion, forward and inverse kinematics, workspace and motion trajectories, dynamics, control, and static forces.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	557	Mechanics of Composite Materials	Analysis, design, and applications of laminated and chopped fiber reinforced composites. Micro- and macromechanical analysis of elastic constants, failure, and environmental degradation. Design project.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	561	Computational Fluid Dynamics	Finite-difference and finite-volume techniques for solving the subsonic, transonic, and supersonic flow equations. Method of characteristics. Numerical grid-generation techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	564	Advanced Aerodynamics	Perturbation method. Linearized subsonic and supersonic flows. Thin wing/slender body theories. Lifting surface theory. Panel method computation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	566	Rotary-Wing Aerodynamics	Introduces helicopter and propeller analysis techniques. Momentum, blade-element, and vortex methods. Hover and forward flight. Ground effect, autorotation, and compressibility effects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	571	Fluid Mechanics	Basic kinematic, dynamic, and thermodynamic equations of the fluid continuum and their application to basic fluid models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	572	Advanced High-Speed Flows	Introduces compressible flow. Sound waves and normal shock waves. Quasi-one-dimensional steady flows in variable area ducts with friction, heating, and cooling; unsteady one-dimensional flow, oblique shock waves, Prandtl-Meyer expansions, detonation waves.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	573	Viscous Fluid Flow	Mechanics of fluids for flows in which the effects of viscosity are significant. Exact and approximate solutions of the Navier-Stokes system, laminar flow at low and high Reynolds number.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 completed with C or better or currently enrolled
MAE	574	Fluid Transport in Micro/Nanoscale Devices	Focuses on fundamental fluid transport physics in micron and nanometer scale devices. At small length scales fluid motion and transport is governed by electromagnetic, interfacial, and stochastic phenomena that differentiate these flows from typical macroscale flows. In microscale devices these phenomena enable new and high-performance separation, concentration, control, and diagnostic processes. Core concepts are presented along with discussions of state-of-the-art micro and nanoscale total analytical devices. Requires knowledge of fluid mechanics, electrostatics, heat and mass transfer, and partial differential equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Fulton School of Engineering graduate students only

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MAE	575	Turbulence	Homogeneous, isotropic, and wall turbulence. Experimental results. Introduces turbulent-flow calculations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	577	Turbulent Flow Modeling	Reynolds equations and their closure. Modeling of simple and complex turbulent flows, calculations of internal and external flows, and application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	578	Environmental Fluid Dynamics	Studies fluid motions in Earth's hydrosphere and atmosphere on local and regional scales.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	581	Advanced Thermodynamics	Basic concepts and laws of classical equilibrium thermodynamics; applications to engineering systems; introduction and applications of statistical mechanics and kinetic theory; Boltzmann integro-differential equation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	585	Conduction Heat Transfer	Basic equations and concepts of conduction heat transfer. Mathematical formulation and solution (analytical and numerical) of steady and unsteady, one- and multidimensional heat conduction and phase change problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	586	Convection Heat Transfer	Basic concepts and governing equations. Analysis of laminar and turbulent heat transfer for internal and external flows. Natural and mixed convection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	587	Radiation Heat Transfer	Advanced concepts and solution methodologies for radiation heat transfer, including exchange of thermal radiation between surfaces, radiation in absorbing, emitting, and scattering media and radiation combined with conduction and convection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	589	Heat and Mass Transfer	Basic concepts; physical and mathematical models for heat and mass transfer. Applications to conductive, convective, radiative, and combined mode heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		Pre-requisites: Graduate Engineering student
MAE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		
MAE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		Pre-requisites: Graduate Engineering student
MAE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		

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MAE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-15		
MAE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		
MAE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-15		
MAK	101	Elementary Macedonian	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	102	Elementary Macedonian	See MAK 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	201	Intermediate Macedonian	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	202	Intermediate Macedonian	See MAK 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	311	Macedonian Composition and Conversation	Advanced communicative proficiency and writing development. Intended for students enrolled in ASU Study Abroad University of Ss. Kiril and Metodij.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	312	Macedonian Composition and Conversation	Advanced communicative proficiency and writing development. Intended for students enrolled in ASU Study Abroad University of Ss. Kiril and Metodij.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	411	Advanced Macedonian Composition and Conversation	Improves self-expression in oral and written skills, emphasizing vocabulary building and use of newspapers and other materials published in Macedonia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	412	Advanced Macedonian Composition and Conversation	Improves self-expression in oral and written skills, emphasizing vocabulary building and use of newspapers and other materials published in Macedonia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MAS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	501	Models of Inquiry for Contemporary Issues	Critical survey of current models of inquiry, tools, processes, and methods in different fields.	N	DIS	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	502	Perspectives in Interdisciplinary Studies	Introduces interdisciplinarity through explorations of epistemological and rhetorical practices that bridge traditional disciplines.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	505	20th Century Thought: Concepts of Change, Culture and Mind	Introduces graduate-level interdisciplinary study of key thinkers, movements, theories and paradigms in 20th-century thought.	N	DIS	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	511	Technology, Environment and Humanity	Critically analyzes technology in relation to human and environmental issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	512	History and Philosophy of the Social Sciences	Examines the development, historical context, and long-term importance of major theories of human nature from the 17th century until today.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	513	Sociology of Everyday Life	Examines institutional ethnography, a way of exploring the particular and generalized social relations that shape people's everyday experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	529	Latinas and Latinos, Schooling, and Social Inequality	Advanced interdisciplinary understanding of the issues facing Latinas and Latinos in K-16 schooling in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MAS	553	Latin American Cities	Interdisciplinary study of Latin American world cities (e.g., Mexico City, Santiago) emphasizing integration with U.S. cities, including Los Angeles and Phoenix.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MAS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MAS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MAS	585	Capstone Course	Assists students in preparing their capstone project, which represents the culmination of their study for the MA in Interdisciplinary Studies.	N	THE	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3-4		Pre-requisites: Must be in PLAN: ASINTERMA

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MAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	510	Science and Religion: Cosmologies and Worldviews	Examines science and religion, stressing modern scientific findings and philosophical and historical debates and dialogues.	N	LEC	N	OPT	New Interdis Arts & Sciences	INACTIVE - Interdisciplinary Studies Graduate	3.		
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	265	Calculus for Engineers I	Limits and continuity, differential calculus of functions of one variable, introduction to integration. Not open to students with credit in MAT 270.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	266	Calculus for Engineers II	Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, Taylor series. Not open to students with credit in MAT 271.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	267	Calculus for Engineers III	Vector-valued functions of several variables, partial derivatives, multiple integration. Not open to students with credit in MAT 272.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	274	Elementary Differential Equations	Introduces ordinary differential equations, adapted to the needs of students in engineering and the sciences. Credit is allowed for only MAT 274 or 275 toward a mathematics degree.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 266 or MAT 271 with a C or better
MAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		

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MAT	343	Applied Linear Algebra	Solving linear systems, matrices, determinants, vector spaces, bases, linear transformations, eigenvectors, norms, inner products, decompositions, applications. Problem solving using MATLAB. Credit is allowed for only MAT 343 or 342 toward a mathematics degree. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed the Unified Placement Test
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
MAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-5		Pre-requisites: Unified Placement Test with a score of 40 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	242	Elementary Linear Algebra	Introduces matrices, systems of linear equations, determinants, vector spaces, linear transformations, and eigenvalues. Emphasizes development of computational skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	2.		
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	265	Calculus for Engineers I	Limits and continuity, differential calculus of functions of one variable, introduction to integration. Not open to students with credit in MAT 270.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	266	Calculus for Engineers II	Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, Taylor series. Not open to students with credit in MAT 271.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	267	Calculus for Engineers III	Vector-valued functions of several variables, partial derivatives, multiple integration. Not open to students with credit in MAT 272.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	270	Calculus with Analytic Geometry I	Real numbers, limits and continuity, and differential and integral calculus of functions of 1 variable. Not open to students with credit in MAT 290. The sequence MAT 270 and 271 may be substituted for MAT 290 to satisfy requirements of any curriculum. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	271	Calculus with Analytic Geometry II	Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series. Not open to students with credit in MAT 291. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	272	Calculus with Analytic Geometry III	Vector-valued functions of several variables, multiple integration, and introduction to vector analysis. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	274	Elementary Differential Equations	Introduces ordinary differential equations, adapted to the needs of students in engineering and the sciences. Credit is allowed for only MAT 274 or 275 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 266 or MAT 271 with a C or better
MAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MAT	300	Mathematical Structures	Logic and set theory, induction, functions, order and equivalence relations, cardinality. Emphasizes writing proofs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	L	Pre-requisites: MAT 210, or MAT 251, or MAT 265, or MAT 270 with a C or better
MAT	310	Introduction to Geometry	Congruence, area, parallelism, similarity and volume, and Euclidean and non-Euclidean geometry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	340	Theory of Interest	Compound interest, discount rates, annuities, present values, depreciation, and bond valuations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better
MAT	342	Linear Algebra	Linear equations, matrices, determinants, vector spaces, bases, linear transformations and similarity, inner product spaces, eigenvectors, orthonormal bases, diagonalization, and principal axes. Credit is allowed for only MAT 342 or 343 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 267, or MAT 272 with a C or better
MAT	343	Applied Linear Algebra	Solving linear systems, matrices, determinants, vector spaces, bases, linear transformations, eigenvectors, norms, inner products, decompositions, applications. Problem solving using MATLAB. Credit is allowed for only MAT 343 or 342 toward a mathematics degree. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 271 or MAT 266 with a C or better
MAT	351	Mathematical Methods for Genetic Analysis	Discrete mathematics, probability, statistics, and associated computer packages. Applications to genomics, bioinformatics, forensics, and DNA/protein sequence patterns. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, or MAT 270 with C or better; Students with credit for BIO 355 or MBB 355 may not enroll in MAT 355
MAT	362	Advanced Mathematics for Engineers and Scientists	Vector analysis, Fourier analysis, and partial differential equations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	370	Intermediate Calculus	Theory behind basic 1-variable calculus: continuity, derivative, Riemann integral, sequences, and series. Not open to students with a C (2.00) or higher in MAT 371. Credit is allowed for only MAT 370 or 371 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 272 (or MAT 267) and MAT 300 (or 243) with a C or better
MAT	371	Advanced Calculus I	Real numbers, completeness, sequences/series, continuity, uniform theorems, derivative, Riemann integral, pointwise/uniform convergence, Taylor's theorem. Credit is allowed for only MAT 371 or 370 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 272 (or MAT 267) and MAT 300 (or 243) with C or better
MAT	372	Advanced Calculus II	Open, closed, compact sets in \mathbb{R}^n ; continuity, differentiation, partial differentiation, integration in \mathbb{R}^n . Inverse/implicit function theorems. Not open to students with credit in MAT 460.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	410	Introduction to General Topology	Topological spaces, metric spaces, compactness, connectedness, and product spaces.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	415	Introduction to Combinatorics	Enumerating permutations and combinations of sets and multisets, inclusion-exclusion, recurrence relations, generating functions, Pólya theory and combinatorial structures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	416	Introduction to Graph Theory	Trees, cycles, matchings, planarity, connectivity, hamiltonicity, chromatic number, Ramsey theory with emphasis on proof techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		MAT 300 (or 243) with C or better
MAT	419	Introduction to Linear Optimization	Simplex method, duality, and network flows. Applications to game theory, geometry, combinatorics, graph theory, and posets.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	420	Scientific Computing	Surveys and applies programming languages, libraries, and scientific visualization tools. Programming assignments emphasize software development skills. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	421	Applied Computational Methods	Numerical methods for quadrature, differential equations, roots of nonlinear equations, interpolation, approximation, linear equations, floating-point arithmetic, and roundoff error.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	423	Numerical Analysis I	Solution of systems of linear and nonlinear equations, optimization, eigenvalues, round-off error, and floating point arithmetic. Fluency in computer programming is required for enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 342 (or MAT 343) with a grade of C or better
MAT	425	Numerical Analysis II	Analysis of and algorithms for numerical interpolation, integration, and differentiation. Numerical solution of ordinary and partial differential equations, introductory level. Applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 274 or MAT 275 with D or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	442	Advanced Linear Algebra	Fundamentals of linear algebra, dual spaces, invariant subspaces, canonical forms, bilinear and quadratic forms, and multilinear algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	443	Introduction to Abstract Algebra	Introduces concepts of abstract algebra. Not open to students with credit in MAT 444.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 300 and MAT 342 (or MAT 343) with a C or better
MAT	444	Intermediate Abstract Algebra	Basic theory of groups, rings, and fields, including an introduction to Galois theory. Appropriate as preparation for MAT 543.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	445	Theory of Numbers	Prime numbers, unique factorization theorem, congruences, Diophantine equations, primitive roots, and quadratic reciprocity theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	447	Cryptography	Block ciphers, stream ciphers, congruence arithmetic, information theory, public key cryptosystems, key exchange, electronic signatures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	451	Mathematical Modeling	Detailed study of 1 or more mathematical models that occur in the physical or biological sciences. May be repeated for credit with instructor approval.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	452	Introduction to Chaos and Nonlinear Dynamics	Properties of nonlinear dynamical systems; dependence on initial conditions; strange attractors; period doubling; bifurcations; symbolic dynamics; Smale-Birkhoff theorem; and applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	460	Vector Calculus	Vectors, curvilinear coordinates, Jacobians, implicit function theorem, line and surface integrals, Green's, Stokes', and divergence theorems. Not open to students with credit in MAT 372.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	461	Applied Complex Analysis	Analytic functions, complex integration, Taylor and Laurent series, residue theorem, conformal mapping, and harmonic functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 272 or MAT 267 with a C or better
MAT	462	Applied Partial Differential Equations	Second-order partial differential equations, emphasizing Laplace, wave, and diffusion equations. Solutions by the methods of characteristics, separation of variables, and integral transforms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	472	Intermediate Real Analysis I	Introduces analysis in metric spaces with emphasis on the real line. Appropriate as preparation for MAT 570.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	473	Intermediate Real Analysis II	Analysis in \mathbb{R}^n : implicit function theorem, introduction to manifolds, Lebesgue integration, change of variables formula, convergence theorems for integrals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	475	Differential Equations	Linear and nonlinear ordinary differential equations, asymptotic behavior of solutions, stability, existence and uniqueness, limit sets, Poincar-Bendixson theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 242 (or MAT 342 or MAT 343) and MAT 274 (or MAT 275) and MAT 370 (or MAT 371) with a "C" or better
MAT	476	Partial Differential Equations	First-order quasilinear, second-order linear (wave, Laplace, heat). Characteristics, harmonic functions, maximum principles, Fourier series, separation of variables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 242 (or 342 or 343) with C or better; MAT 274 (or 275 or 475) with C or better; MAT 370 (or 371) with C or better
MAT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	485	History of Mathematics	Topics from the history of the origin and development of mathematical ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MAT	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
MAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
MAT	514	Enumerative Combinatorics I	First semester of a systematic development of enumerative combinatorics, including elementary counting techniques, sieve methods, and partially ordered sets.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	515	Enumerative Combinatorics II	Second semester of a systematic development of enumerative combinatorics, including lattices, exponential structures, symmetric functions, and selected special topics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	516	Graph Theory I	First semester of a systematic development of graph theory, including matchings, connectivity, arboricity, planarity, coloring, network flows.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	517	Graph Theory II	Second semester of a systematic development of graph theory, including dense and sparse graphs, Ramsey theory, hamiltonicity, random graphs, minors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	518	Combinatorial Optimization	Systematic development of combinatorial optimization, including linear programming, duality, primal-dual algorithms, network flow algorithms, weighted matchings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	543	Abstract Algebra	Groups, modules, rings and fields, Galois theory, homological algebra, and the representation theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	544	Abstract Algebra	Continuation of MAT 543.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	570	Real Analysis	Lebesgue integration, selected function spaces, differentiation, abstract measure theory, and elements of functional analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	571	Real Analysis	Continuation of MAT 570.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	572	Complex Analysis	Analytic functions, series and product representations, entire and meromorphic functions, normal families, Riemann mapping theorem, harmonic functions, and Riemann surfaces.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	573	Complex Analysis	Continuation of MAT 572.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	574	Theory of Ordinary Differential Equations	Systems, existence proofs, singularities, asymptotic behavior of solutions, boundedness of solutions, eigenvalues and eigenfunctions, and perturbation theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	578	Functional Analysis	Locally convex, normed, and Hilbert spaces. Linear operators, spectral theory, and application to classical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	579	Functional Analysis	Continuation of MAT 578.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MAT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed the Unified Placement Test
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-5		
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	270	Calculus with Analytic Geometry I	Real numbers, limits and continuity, and differential and integral calculus of functions of 1 variable. Not open to students with credit in MAT 290. The sequence MAT 270 and 271 may be substituted for MAT 290 to satisfy requirements of any curriculum. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	271	Calculus with Analytic Geometry II	Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series. Not open to students with credit in MAT 291. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	272	Calculus with Analytic Geometry III	Vector-valued functions of several variables, multiple integration, and introduction to vector analysis. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 266 or MAT 271 with a C or better
MAT	300	Mathematical Structures	Logic and set theory, induction, functions, order and equivalence relations, cardinality. Emphasizes writing proofs.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	
MAT	300-W	Mathematical Structures	Introduces rigor and proof in mathematics. Basic logic, set theory, mathematical induction, combinatorics, functions, relations, and problem solving.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	Pre-requisite: ENG 101 or ENG 105 with C or better
MAT	310	Introduction to Geometry	Congruence, area, parallelism, similarity and volume, and Euclidean and non-Euclidean geometry.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT272 with a grade of C or greater or be currently enrolled.
MAT	342-W	Linear Algebra	Linear equations, matrices, determinants, vector spaces, bases, linear transformations and similarity, inner product spaces, eigenvectors, orthonormal bases, diagonalization, and principal axes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT272 with a grade of C or greater or be currently enrolled.
MAT	371-W	Advanced Calculus I	Continuity, Taylor's theorem, partial differentiation, implicit function theorem, vectors, linear transformations and norms in \mathbb{R}^n , multiple integrals, and power series.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	411	History and Philosophy of Mathematics	Examines nature of mathematics from origins to present, revealed by its history and philosophy. Strong background in mathematics not required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	HU & H	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	419	Introduction to Linear Optimization	Simplex method, duality, and network flows. Applications to game theory, geometry, combinatorics, graph theory, and posets.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
MAT	421	Applied Computational Methods	Numerical methods for quadrature, differential equations, roots of nonlinear equations, interpolation, approximation, linear equations, floating-point arithmetic, and roundoff error.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
MAT	443-W	Abstract Algebra	Introduces the most important algebraic structures, including groups, rings, integral domains, and fields.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	445	Theory of Numbers	Prime numbers, unique factorization theorem, congruences, Diophantine equations, primitive roots, and quadratic reciprocity theorem.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	450	Mathematical Models in Biology	Introduces mathematical models in biological systems. Applications range from the cellular level to systems level and may include applications from areas such as physiology, ecology, epidemiology, population biology, computational and systems biology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	462	Applied Partial Differential Equations	Second-order partial differential equations, emphasizing Laplace, wave, and diffusion equations. Solutions by the methods of characteristics, separation of variables, and integral transforms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
MAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed the Unified Placement Test
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MBB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	245	Principles of Molecular and Cellular Biology I	Introduces molecular biology, genetic engineering, gene expression/control and evolution, in the context of cellular and organismal physiology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	Pre-requisites: CHM 113 with C or better; Pre/Co-requisite: CHM 116 (with C or better if completed)
MBB	247	Principles of Molecular and Cellular Biology II	Introduces cell biology, metabolism and regulation, bioenergetics, and protein translocation in the context of cellular and organismal physiology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MBB 245 (or BIO 188) with a C or better
MBB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	343	Genetic Engineering and Society	Introduces genetic engineering, with emphasis on applications (transgenic plants and animals, cloning, vaccines, therapeutics, and diagnostics). Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: MBB 247 or BIO 340 with a C or better; Students who have credit for BIO 343, may not enroll in MBB 343
MBB	350	Applied Genetics	Introduces molecular genetics with emphasis on application of genetics to solve biological questions and to engineer organisms for biotechnology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MBB 247 or BIO 340 with C or better; Credit is allowed for only MBB or PLB 350
MBB	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, or MAT 270 with C or better; Students with credit for BIO 355 or MAT 355 may not enroll in MBB 355
MBB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	440	Functional Genomics	Covers emerging fields of genomics and proteomics. Discusses key technologies and their applications to the study of genomes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 340 with C or better; Credit is allowed for only BIO or MBB 440
MBB	444	Techniques in Functional Genomics	Practical introduction to modern functional genomics techniques, including microarray analysis and DNA sequencing.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre or Co-requisites: BIO 440 or MBB 440 (with C or better if completed)

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MBB	445	Techniques in Molecular Biology/Genetics	Molecular genetic principles: plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation, immunologic detection, and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: BIO 340 with C or better; MIC 302 with C or better; Students with credit for MIC 445 may not enroll in MBB 445
MBB	446	Techniques in Molecular Biology/Genetics Lab	Molecular genetic techniques; plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation; immunologic detection and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: MBB 445 or MIC 445 (with C or better if completed); Credit is allowed for only MBB or MIC 446
MBB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MBB	490	Capstone: Issues in Biotechnology	Integrates science and biotechnology industry issues dealing with intellectual property, regulatory issues, business practices, and commercialization. Both MBB 490 and MBB 491 for L General Studies credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: MBB 247 with C or better; BIO 340 with C or better
MBB	491	Capstone: Issues in Molecular Biosciences	Integrates molecular science and societal issues dealing with ethics, regulatory issues, and societal needs that pertain to molecular biosciences. Both MBB 490 and MBB 491 for L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: MBB 343 with C or better; BIO 340 with C or better
MBB	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		
MBB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
MBB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
MBB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
MCB	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	501	Seminar: Molecular and Cellular Biology Colloquium	Presentation of current research by noted researchers in the field. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	540	Functional Genomics	Functional relevance of genomic sequences; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MCB	555	Advanced Molecular and Cellular Biology I	Study of structural and functional organization of biomolecules and cells, based on current literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
MCB	556	Advanced Molecular and Cellular Biology II	Continuation of MCB 555.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MCB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MCB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	701	Seminar: Molecular and Cellular Biology Colloquium	Presentation of current research by noted researchers in the field. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		

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MCB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
MCB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
MCE	548	Multicultural Perspectives on Teaching and Learning	Facilitates understanding of key components related to cultural diversity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
MCE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		

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MCE	230	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
MCE	230	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
MCE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	447	Diversity in Families and Communities in Multicultural Settings	Diversity and the changing role of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
MCE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
MCE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
MCE	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
MCE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
MCE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
MCE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
MCN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MCO	498	Pro Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	N	LEC	N	OPT	College of Public Programs	Arizona State University	1-7		
MCO	120	Media and Society	Role of newspapers, magazines, radio, television, and motion pictures in American society. Credit is allowed for only MCO 120 or 110. Designed for nonmajors.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	
MCO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-3		
MCO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	200	Introduction to Electronic Media	Surveys electronic media in the United States: history, regulation, organization, programming, and effects.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		
MCO	240	Media Issues in American Pop Culture	Examines the production and consumption of popular culture as disseminated by the mass media with emphasis on the societal implications.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		
MCO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	302	Media Research Methods	Surveys research methods used in the social sciences, with a focus on mass communication.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Communication student with a cumulative GPA of at least 2.0
MCO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	418	History of Mass Communication	American journalism from its English and colonial origins to the present day. Development and influence of newspapers, magazines, radio, television, and news gathering agencies.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB & H	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	421	Media Problems	Trends and problems of the mass media, emphasizing editorial decisions in the processing of information.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Minimum 2.25 GPA; Journalism & Mass Comm student OR Graduate Mass Communications student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MCO	430	International Mass Communication	Comparative study of communication and media systems. Information gathering and dissemination under different political and cultural systems.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	G	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	435	Emerging Media Technologies	Surveys new mass communication technologies and media distribution platforms in a convergent mass media environment.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	440	Applied Media Research	Design, conduct, and analysis of applied media research. Students participate in the Cactus State Poll.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.5 GPA OR graduate Mass Communication student
MCO	450	Visual Communication	Theory and tradition of communication through the visual media with emphasis on the continuity of traditions common to modern visual media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	HU	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	455	War and Mass Media	Provides a better understanding of the role and impact of the mass media in shaping public perceptions about one of humanity's most monumental undertakings, the act of war. Through a combination of lectures, readings, documentaries, and motion pictures, examines and critically analyzes media portrayals, real and fictional, of issues, events, and the changing dynamic among: the government, the military, and public opinion as shaped by the media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate, and image creation.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	460	Race, Gender, and Media	Readings seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	C	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	465	Sports and Media	Designed for aspiring journalists and media users, explores why great sports journalism is essential to our society. Establishes the goals, dreams, and expectations for sports journalism and introduces ethical philosophy and popular ethical models and decision-making tools. Students then apply these tools to sports journalism.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	470	Issues Management and Media Strategy	Strategic aspects of media planning and management in public relations, public affairs, crisis communication lobbying, media ethics, and government relations.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR Graduate Mass Communication student
MCO	473	Sex, Love, and Romance in the Mass Media	The role of the mass media in constructing and/or reinforcing unrealistic mythic and stereotypic images of sex, love, and romance.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	
MCO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	492	Honors Directed Study		N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6		Pre-requisites: Must be an Honors student
MCO	493	Honors Thesis		N	LEC	N	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6	L	Pre-requisites: Must be an Honors student
MCO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	497	Honors Colloquium		Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6		
MCO	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	501	Newsriting and Reporting	Designed for graduate students in the MMC program who have undergraduate degrees in nonjournalism areas. Objective is to teach fundamentals of writing and reporting. Fee.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	503	Media Law	Examines philosophical and legal aspects of press freedom. Emphasizes First Amendment theory evolution from 1791 to present.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	510	Media Research Methods	Professional approach to online and library research, getting and using public records, and investigative journalism techniques.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student

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MCO	520	Mass Communication Theories and Process	Analyzes various theoretic models of mass communication with emphasis on the applications of these theories to various professional communication needs.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	522	Mass Media and Society	Mass media as social institutions, particularly interaction with government and public. Emphasizes criticism and normative statements.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	525	21st-Century Media Organization and Entrepreneurship	Focuses on the future of journalism, the future of journalism business organizations and entrepreneurship, new media experiences, online solutions to popular media problems, financial realities of the media, and media innovation.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	530	History, Philosophy, and Ethics of Journalism	Explores contemporary news media ethical problems in a seminar setting. Uses journalism ethical perspectives to obtain keys to unlock contemporary dilemmas surrounding the news media.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	531	Advanced Broadcast Reporting	News and information practices of networks, stations, and industry. Practice in writing, reporting, and editing with emphasis on video.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	540	Historical/Legal Methods	Introduces legal and historical methods necessary to conduct qualitative mass communication research.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		
MCO	560	Arizona Media Law	Case study approach to first amendment issues, media access, libel, confidentiality, and invasion of privacy as applied to media organizations in Arizona.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		Pre-requisite: Masters of Mass Communication student
MCO	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		
MCO	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisite: Masters of Mass Communication student
MCO	120	Media and Society	Role of newspapers, magazines, radio, television, and motion pictures in American society. Credit is allowed for only MCO 120 or 110. Designed for nonmajors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
MCO	240	Media Issues in American Pop Culture	Examines the production and consumption of popular culture as disseminated by the mass media with emphasis on the societal implications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
MCO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MCO	418	History of Mass Communication	American journalism from its English and colonial origins to the present day. Development and influence of newspapers, magazines, radio, television, and news gathering agencies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
MCO	430	International Mass Communication	Comparative study of communication and media systems. Information gathering and dissemination under different political and cultural systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
MCO	450	Visual Communication	Theory and tradition of communication through the visual media with emphasis on the continuity of traditions common to modern visual media.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MCO	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate, and image creation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
MCO	460	Race, Gender, and Media	Readings seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	C	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MET	150	Introduction to Engineering Technology	Introduces mechanical, manufacturing, and aeronautical engineering technology. Covers aspects of the industries utilizing these majors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		
MET	160	CADD and Solid Modeling	Uses 3-D solid modeling software to model mechanical parts and produce valid engineering drawings, including use of geometric dimensioning and tolerancing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
MET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
MET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	211	Statics	Vectors, forces and moments, force systems, equilibrium, analysis of basic structures and structural components, friction, centroids, and moments of inertia. May be repeated for credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 111 or PHY 121 with a D or better; APM 265, MAT 260 or MAT 270 with D or better
MET	230	Introduction to Engineering Materials	Introduces materials and their properties, emphasizing basic concepts and structures and how these properties relate to manufacturing and design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
MET	231	Manufacturing Processes	Design documentation and material processes on plastics, ferrous and nonferrous materials, emphasizing orthographic projection, geometric dimensioning and tolerances.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 160 and MET 230 with a D or better
MET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	300	Applied Material Science	Principles of materials science emphasizing concepts relevant to design, manufacturing, and use. Covers metals, polymers, ceramics, and composites.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation BAS student, OR MET 231 with D or better
MET	302	Welding Survey	Theory and application of industrial welding processes; introductory welding metallurgy and weldment design; SMAW, GTAW, GMAW, oxyacetylene, and brazing experiences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisite: College of Technology and Innovation or Fulton Engineering students
MET	309	Nondestructive Testing and Quality Assurance	Part and material inspection using metrology and nondestructive inspection tools and techniques. Theory and application with use of pertinent standards.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: MET 231 with D or better OR Materials Joining Mfg Tech or Manufacturing Tech & Mgt BAS student
MET	313	Applied Mechanics of Materials	Stress, strain, stress-strain relations. Axial, shear, bending, torsional and combined loads and deflections.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisite: MET 211 or CEE 210, or MAE 212, or CON 221 with D or better OR College of Technology and Innovation MS Tech student
MET	314	Applied Mechanics of Materials Laboratory	Measurements of loads and deformations relating stress and strain in axial, shear, bending, torsional, and combined loading configurations.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: MET 313 or MAE 213 or MSE 211 or CON 223 or CEE 213 with a D or better; or be co-enrolled in one of the courses
MET	321	Introduction to Automotive Engineering	Engineering principles and the design of ground vehicles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312; MET 313; MET 340 completed with a grade of D or better
MET	331	Machine Design I	Applies mechanics to design of machine elements and structures. Stress analysis, failure modes, tolerances, cylindrical fits, and shaft design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Met 313 or CEE 213 or MAE 213 or CON 223
MET	340	Engineering Thermo-Fluids I	First and second laws of thermodynamics, systems, processes, equations of state, property tables. Fluid statics, conservation of momentum, Bernoulli's equation, applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 112 or PHY 131 with D or better; APM 266, APM 271, MAT 261, MAT 266 or MAT 271 with D or better
MET	341	Manufacturing Analysis	Organizational and functional requirements for effective production. Analysis of industrial specifications, geometric dimensioning and tolerancing, costs, and group technology. Writing assembly production plans.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231 with D or better or College of Technology and Innovation BAS or MS Tech student
MET	344	Casting and Forming Processes	Analyzes various forming processes to determine load requirements necessary for a particular metal-forming operation. Information used to select equipment and design tooling. Metal casting processes and design of castings. Introduces powder metallurgy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231; MET 300 (or MSE 250) with D or better OR College of Technology and Innovation BAS or MS Tech student
MET	345	Advanced Manufacturing Processes	Material removal processes emphasizing advanced turning, milling, and machinability studies using cutting tools. CNC programming for machining and turning centers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231 with D or better
MET	351	Introduction to Automation	Introduces automation. Topics include assembly techniques, fixed and flexible automation systems, robots, material-handling systems, sensors, and controls.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 210 or EEE 202
MET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		

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MET	396	Professional Orientation	Topics related to a successful career in engineering technology industry. Includes safety, life-long learning, ethics, and career planning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisite: Junior or Senior standing
MET	400	Materials and Joining Processes	Effects of joining processes on metals and composites. Thermal cycle effects on solid-state and liquid-solid material transformations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	401	Quality Assurance	Statistical quality control methods, design of experiments, sampling, gauge requirements and specifications, use of quality assurance tools.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: APM 301 with D or better
MET	402	Advanced Material Joining	In-depth analysis of common materials-joining processes and their process parameters. Includes automation, soldering, and adhesive bonding. Lecture, lab.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	409	Applied Engineering Economics	Fundamentals of engineering economics in a practical, industry-based approach. Includes effects of depreciation, taxes, inflation, and replacement analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	410	Manufacturing Resource Management	Measures like cycle time, throughput, capacity, work-in-process, inventory, variability, and how they drive operating relationships in a factory. Credit is allowed for only MET 410 or 510.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 341 with D or better
MET	415	Manufacturing Simulation	Computer simulation of manufacturing operations. Discrete event simulation models range from individual processes to whole factories.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 341 with D or better
MET	416	Applied Computer-Integrated Manufacturing	Techniques and practices of computer-integrated manufacturing as applied in a broad range of industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.	CS	Pre-requisites: MET 341
MET	418	Composites Materials Manufacturing	Introduces composite materials and associated manufacturing issues, including tooling, processes, and quality control. Related issues, including testing and joining. Credit is allowed for only MET 418 or 518.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 300 or MSE 250
MET	421	Vehicle Powertrains	Internal combustion engine design, performance and operation, and power transmission systems within vehicles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312, MET 313, MET 340, with a grade of D or better
MET	423	Vehicle Chassis and Running Gear Design	Design and manufacture of chassis, structures, steering and braking systems and components, wheels and tires, suspension systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312, MET 331 completed with a grade of D or better
MET	424	Vehicle Electrical Systems	Vehicle electrical power and signal systems, computer control and analog control systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 210; MET 321; MET 421
MET	426	Vehicle Thermal Design	Heat management in vehicle systems, including thermal design of engine and transmission cooling systems, cabin heating, and air conditioning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 421; Pre/Co-requisite: MET 434
MET	427	Vehicle System Integration and Testing	Systems engineering principles. Design of the interfaces between vehicle subsystems. Testing of integrated systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:MET 423, & MET 424 with a grade of D or better
MET	432	Engineering Thermo-Fluids II	Thermodynamic analysis of mixtures and power cycles. Design and analysis of fluid systems, conduction heat transfer, and introduction to convection and radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 340 or MAE 240; Credit is allowed for only EGR or MET 432
MET	433	Thermal Power Systems	Analyzes gas power, vapor power, and refrigeration cycles. Components of air conditioning systems. Direct energy conversion. Psychrometry. Analyzes internal combustion engines and fluid machines.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Pre-requisites: MET 432 with D or better OR College of Technology and Innovation MS, MSE, MS Tech or PhD student
MET	434	Engineering Thermo-Fluids III	Transient conduction, convection and radiation heat transfer, heat exchangers, thermo-fluid systems engineering.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 with a grade of D or better, or currently enrolled
MET	435	Alternate Energy Sources	Alternate energy systems, energy use and its impact on the environment, and demonstrating practical alternative energy sources to fossil fuels.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	436	Turbomachinery Design	Applies thermodynamics and fluid mechanics to the analysis of machinery design and power cycle performance predictions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 434 with D or better; MET 340, ECE 340 or ETC 340 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	437	Design for Materials Joining	Uses design principles to analyze structures and determine appropriate weld/braze/solder or adhesive joint size. Uses welding codes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	438	Machine Design II	Applies mechanics to the design of machine elements and structures. Emphasizes basics of gears, springs, brakes, clutches, and bearings.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 331 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	440	Finite Element Analysis	Analyzes machine elements, frames, and aerospace structures employing finite element analysis and software. Includes sensitivity analysis and estimating accuracy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 331 with D or better
MET	442	Specialized Production Processes	Nontraditional manufacturing processes, emphasizing EDM, ECM, ECG, CM, PM, HERF, EBW, and LBW.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231
MET	443	CNC Computer Programming	Theory and application of N/C languages using CAM software and CNC machine tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 345
MET	444	Production Tooling	Design and fabrication of jigs, fixtures, and special industrial tooling related to manufacturing methods.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 345
MET	452	Implementation of Robots in Manufacturing	Robotic workcell design, including end effectors, parts presenters, and optimum material flow.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 351 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	455	Automation Systems Integration	Applies sensors and devices and their integration with PLCs and computers into automated devices and systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 351

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MET	460	Capstone Project I	Group project designing, evaluating, and analyzing components, assemblies, and systems. Develop products/manufacturing techniques demonstrating state-of-the-art technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Senior academic level; MET 331 and MET 345 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	461	Capstone Project II	Small-group projects applying manufacturing techniques, with emphasis on demonstrating state-of-the-art technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Senior academic level; MET 460 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-6		
MET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
MET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Minimum Junior status; College of Technology and Innovation or Fulton Engineering student
MET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Minimum Junior standing; Manufacturing Engineering Tech student OR Technology and Innovation or Fulton Engineering graduate student
MET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
MET	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	501	Statistical Quality Control Applications	SPC problem-solving techniques for implementation in industrial setting; design and analysis of experiments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	502	Specialized Production Processes	Specialized production processes including lasers, electronic beam, abrasive and water jet, and chemical and thermal processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	504	Applications of Production Tooling	Design and fabrication of fixtures, jigs, templates, and specialized industrial tooling for manufacturing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	507	Manufacturing Enterprise	Organization and project management of cellular manufacturing methods, including IIT and lean manufacturing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	509	Applied Engineering Economics	Fundamentals of engineering economics in a practical, industry-based approach. Includes effects of depreciation, taxes, inflation, and replacement analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	510	Manufacturing Resource Management	Measures like cycle time, throughput, capacity, work-in-process, inventory, variability, and how they drive operating relationships in a factory. Credit is allowed for only MET 510 or 410.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	512	Introduction to Robotics	Introduces industrial robots. Topics include: robot workspace, trajectory generation, robot actuators and sensors, design of end effectors, and economic justification. Application case studies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level OR Graduate or Non-degree students
MET	513	Advanced Automation	Analysis and design of hard and flexible automation systems. Particular attention to material-handling technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Minimum Senior Standing; College of Technology and Innovation or Fulton Engineering
MET	514	CNC Computer Programming	Theory and application of N/C languages using CAM software and CNC machine tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	515	Manufacturing Simulation	Computer simulation of manufacturing operations. Discrete event simulation models range from individual processes to whole factories.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	516	Applied Computer-Integrated Manufacturing	Techniques and practices of computer-integrated manufacturing as applied in a broad range of industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level OR Graduate or Non-degree students
MET	518	Composites Materials Manufacturing	Introduces composite materials and associated manufacturing issues, including tooling, processes, and quality control. Related issues, including testing and joining. Credit is allowed for only MET 518 or 418.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		
MET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
MGT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-3		
MGT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
MGT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
MGT	300	Organization and Management Leadership	Analyzes strategic, behavioral, and human resource management perspectives, including principles of strategic management and leadership of human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		WP Carey BS or BA student, or Business Minor student; PGS 101 or PGS 304 or SOC 101 or SOC 301 with C or better.
MGT	301	Principles of Management	Introduces the theoretical and practical foundations of organizations with a focus on individuals, groups, and organizational systems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: School of Global Management and Leadership student.
MGT	302	Principles of International Business	Multidisciplinary analysis of international economic and financial environment. Operations of multinational firms and their interaction with home and host societies.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.	G	Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA, min 2.5 ASU business GPA and 56 earned hours; Must have completed ECN 212 or 214 with a grade of C or greater.
MGT	303	Honors Organizational Strategies, Leadership, and Behavior	Overview of business strategy principles, management processes, motivation, and leadership	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Honors student; PGS 101 or PGS 304 or SOC 101 or SOC 301 with grade of C or better.
MGT	310	Collaborative Team Skills	Development of skills in managing and working in collaborative environments. Theories and applications in small group dynamics and team facilitation.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student OR Non-business student with min 3.5 ASU cum GPA and min 56 earned hours.
MGT	320	Organizational Behavior	Management processes, fundamentals of business-level strategy, individual difference issues, motivation and leadership of people in organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-reqs: W.P. Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours.
MGT	350	Seminar in International Business	Broad exposure to global business; cross-cultural differences across business disciplines; European Union history and future; impact of exchange rates.	N	FLD	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student; SCM 300 with C or better, OR Non-business student with min 2.0 ASU cum GPA and 56 earned hrs and MGT 380 with C or better
MGT	380	Management and Strategy for Nonmajors	Introduces the functions and applications of management in organizations, including controlling, decision making, leadership, motivation, planning, and social responsibility. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Non-business student with a minimum ASU cumulative GPA of 2.00 and a minimum of 56 earned hours, OR Non degree or Grad student
MGT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W. P. Carey BS or BA student; Pre- or Co-requisite: ACC 240 or ACC 241 with C grade or better.
MGT	400	Cross-Cultural Management	Cultural role in international business relations; applied principles of cross-cultural communications, negotiations, and management; regional approaches to business relations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	C & G	Pre-requisites: WP Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 300 or 303 or 320 or 380 with C or better.
MGT	410	Responsible Management	Values, core beliefs, legal and ethical mandates and cultural norms as they apply to the conduct of organizations; application through a Service Learning project.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: WP Carey BS or BA student, or non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 300 or 303 or 320 or 380 with a grade of C or better
MGT	411	Leading Organizations	Comprehensive overview of leadership in organizations. Provides students with understanding of leadership research and its applications to global organizations and the development of leaders.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.		Pre-requisites: Must be a Global Business/Ldrshp Mngt or Global Business/Human Resource student with conditional or professional status AND completed MGT 301 with a grade of C or greater or be currently enrolled.

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MGT	412	Managing Human Resources	Overview of domestic and global human resources management topics pertinent to managers and first-line supervisors, as well as those with interest in human resources management.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Global Business/Ldrshp Mngt or Global Business/Human Resource student with conditional or professional status, must not have earned credit for HRM 410, AND completed MGT 301 with a grade of C or greater.
MGT	420	Human Resource Management	Development of skills and knowledge to lead associates effectively; hiring, developing, evaluating, retaining, and rewarding employees. Preparation for leadership roles.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		WP Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 300 or 303 or 320 or 380
MGT	440	Entrepreneurship	Provides students with a framework and a skill set for identifying, evaluating, valuing, and developing entrepreneurial opportunities. Challenges students to develop and refine their individual entrepreneurial perspective. Case-based and interactive instruction.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student, MGT 300 or MGT310 or MGT 303 completed with a grade of C or greater.
MGT	445	Business Plan Development	Develops a complete strategic business plan emphasizing the planning process undertaken by successful small business owners and entrepreneurs.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student, OR non-business students with a minimum 2.5 ASU cumulative GPA and a minimum 2.5 ASU business GPA and at least 56 earned hours; MGT 440 completed with a grade of C or greater.
MGT	450	Changing Business Processes	Describes and analyzes business processes. Generates and evaluates alternatives. Creates improvement and implementation plans.	N	FLD	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: W.P. Carey Management BS or BA student; have completed ENG 302 or 301, FIN 300, MKT 300; have completed MGT 410 AND MGT 420 with a C or greater.
MGT	459	International Management	Concepts and practices of multinational and foreign firms. Objectives, strategies, policies, and organizational structures for operating in various environments.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	G	Pre-reqs: WP Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 302 or ECN 306 with a grade of C or better;
MGT	460	Strategic Management	Systems theory of organizations, strategy formulation and administration in organizations, creating organizational cohesiveness, and leading change within organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: WP Carey BS or BA student; min 56 earned hours; MGT 300 or 303 or 320 or 380; FIN 300; MKT 300 with "D" or better.
MGT	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	5.	L	Pre-requisites: Department approval; application process.
MGT	465	Collaborative Design Development II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	5.	L	Pre-requisites: Department approval; application process
MGT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey Management BS student.
MGT	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6		Pre-requisites: Must be an Honors student
MGT	493	Honors Thesis		N	THE	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
MGT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W.P. Carey BS or BA student OR non-business with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and min 56 earned hrs; MGT 300 or 302 or 303 or 310 or IBS 300 with C or better
MGT	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-6		
MGT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-7		Pre-requisites: W. P. Carey BS or BA student OR non Business students with a minimum GPA of 2.50 and either at least 56 earned hours or non degree students OR Graduate students
MGT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		Pre-requisites: W. P. Carey BS or BA student OR non Business students with a minimum GPA of 2.50 and either at least 56 earned hours or non degree students OR Graduate students
MGT	502	Organization Theory and Behavior	Understands human side of organizations through management theories and applications. Develops knowledge and skills for successful management of self and others.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: Specific W.P. Carey students
MGT	503	Human Resources Management: Principles and Skills	Emphasizes strategies for managing human resources and implementing HRM programs and policies that make people more productive and satisfied.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	504	Ethics and Corporate Social Responsibility	Reviews practical and conceptual tools to deal with the ethical implications of a variety of types of managerial decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	505	Leadership and the Knowledge Economy	Examines organizational processes that seek synergies between the information processing capacity of IT and the creative capacity of humans.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	512	Professional Relationship Management	Explores theories, methods, skills, and practices central to development of professional-level expertise in the management of relationships in the workplace.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in either the Accountancy & Applied Leadership graduate plan or the Applied Leadership & Management graduate plan.
MGT	513	Leadership Skills and Principles	In-depth study of traditional and emerging ways to demonstrate leadership effectively with emphasis on leadership development and coaching activities.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in either the Accountancy & Applied Leadership graduate plan or the Applied Leadership & Management graduate plan

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MGT	514	Entrepreneurial Leaders	Applies leadership concepts to entrepreneurial processes. Considers independent entrepreneurs, as well as intrapreneurs within organizations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Applied Leadership & Management graduate plan; MGT 513 with C or better
MGT	515	The Neuroscience of Leadership	Provides a rigorous understanding of how the human brain supports leaders in thought, perception, decision-making, affect, action, and social processes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Mgt & Leadership graduate student in Acct & Applied Leadership or Applied Leadership & Mgt. Applied Leadership & Mgt students must have completed MGT 502, 503, 504, and 505 with C or better
MGT	522	Human Resource Activity and the Management of Diversity	Applies general and human resource management principles to work effectively with a diverse spectrum of people.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
MGT	523	Performance Management	Addresses effective management of people in organizations. Considers evaluating and improving performance using concepts and application.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	559	International Management	Studies international and cross-cultural influences on management processes and development of global leadership capabilities for experienced management professionals.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-3		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
MGT	561	Advanced Integrated Project	Capstone project of the high-technology ASU MBA. Student teams develop business plans for new technology-based products.	Y	FLD	Y	GNA	W.P. Carey School of Business	Department of Management	1-6		Pre-requisites: MBA degree student
MGT	570	Management Consulting	Develops understanding of how internal and external consultants add value.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		
MGT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	Department of Management	0-12		
MGT	588	Strategic Leadership	Explores the general manager as organizational leader. Focuses on competitive advantage and how each functional area contributes to it.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	589	Strategic Management	Formulation of strategy and policy in the organization, emphasizing the integration of decisions in the functional areas.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: Graduate W.P. Carey students or Public Administration MPA student
MGT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: MBA degree student
MGT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	0-12		
MGT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Management	1.		
MGT	596	Global Strategic Management Project	Experientially examines the interaction among the strategic forces within an organization with the competitive forces in the global environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in Applied Leadership & Management; MGT 502, 503, 504, and 505 with C or better
MGT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
MGT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Management	1-12		
MGT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MGT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
MGT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	SEM	Y	Z1	W.P. Carey School of Business	Department of Management	1-15		
MGT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	W.P. Carey School of Business	Department of Management	1.		
MGT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	W.P. Carey School of Business	Department of Management	1-15		
MGT	300	Organization and Management Leadership	Analyzes strategic, behavioral, and human resource management perspectives, including principles of strategic management and leadership of human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		WP Carey BS or BA student, or Business Minor student; PGS 101 or PGS 304 or SOC 101 or SOC 301 with C or better.
MGT	460	Strategic Management	Systems theory of organizations, strategy formulation and administration in organizations, creating organizational cohesiveness, and leading change within organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	L	Pre-requisites: W. P. Carey BS or BA student, or Global Management student with Professional or Conditional status AND have earned more than 75 hours/credits
MGT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-12		
MGT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		Pre-requisites: W.P. Carey BS or BA student OR non-business with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and min 56 earned hrs; MGT 300 or 302 or 303 or 310 or IBS 300 with C or better
MGT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-3		
MHI	500	Research Methods	Course on research methods in a specific discipline.	Y	THE	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	538	Innovation and the Individual	Introduces the role of the innovator, including the essential behaviors of risk taking, managing workload, and addressing the challenges of innovation.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Masters of Healthcare Innovation
MHI	540	Understanding and Applying Principles of Evidence-Based Practice	Understanding how application of evidence-based practice principles assists healthcare professionals to provide the best care. May be repeated once for credit.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Masters of Healthcare Innovation
MHI	542	Systems Thinking in a Complex Environment	Studies basic and advanced systems principles as they relate to the American healthcare system. Specific emphasis is given to system assessment, designing system interventions, and managing system dysfunction from the innovator's perspective.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	544	Innovations in Information Systems	Allows students to develop their own learning goals around the innovative use of technology to: critically appraise and evaluate the use of technology to access information; develop skills in maximizing the use of technology to advance practice, thinking, and decision making; advance the integration of human potential and available technology; and develop strategies to address the competing priorities of technology, confidentiality, safety, high reliability principles, full disclosure to the public, and risk management. May be repeated once for credit.	N	SEM	Y	P/F	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	546	Communication for Innovation	Overview of traditional, contemporary and innovative communication strategies in the 21st century.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	548	Advanced Principles and Concepts of Innovation	Explores and analyzes the innovation in complex systems, focusing on developing specific skills for successful innovations.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	550	Healthcare Policy and Innovation	Introduces the political, organizational, and economic dimensions of healthcare policy, emphasizing strategies for innovative policy and practice.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	552	Financing for Innovation	Provides an overview of healthcare economics; develops budgeting, planning, and management skills; and culminates in financial analysis skills necessary to facilitate management decision making or writing business plans or grant proposals.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

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MHI	554	Outcomes Evaluation	Outcomes measurement, management, and evaluation for healthcare practitioners and/or leaders. May be repeated once for credit.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	561	Capstone Innovation Project I	Capstone project to learn the active skills of healthcare innovation using an adapted IDEO model.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	562	Capstone Innovation Project II	Introduces the process of conceptualizing an innovation and building a plan or proposal to move forward with the innovation in either an entrepreneurial or intrapreneurial context.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
MHI	563	Capstone Innovation Project III	Finalizes the process of conceptualizing an innovation and building a plan or proposal to move forward with the innovation in either an entrepreneurial or intrapreneurial context.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
MHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
MHI	679	Biostatistics: Principles of Statistical Inference.	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
MHI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHL	140	Music as Culture	Introduces a range of practical and intellectual challenges presented by encounters with various kinds of music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites:Must be a Music student; must be a freshman
MHL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MHL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	201	Mac Literacy for Musicians	Instruction in basic Macintosh computer literacy, including generic applications and music-specific programs with hands-on experience. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	CS	
MHL	201	Mac Literacy for Musicians	Instruction in basic Macintosh computer literacy, including generic applications and music-specific programs with hands-on experience. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	CS	
MHL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MHL	341	Music History	Western music from the Greeks to the present day. Need not be taken in sequence with MHL 342.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music student; MHL 140 with a C or better or currently enrolled; MTC 221 with a C or better or currently enrolled
MHL	342	Music History	See MHL 341.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites:Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MHL	344	Music in World Cultures	Examines the relations among music, dance, theatre, religion, and social status in Asia, Africa, Oceania, Europe, and the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & G	
MHL	344	Music in World Cultures	Examines the relations among music, dance, theatre, religion, and social status in Asia, Africa, Oceania, Europe, and the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & G	
MHL	352	The Evolution of Jazz	Origin, development, and styles of jazz music and its exponents.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	H	Pre-requisites: Music student; MTC 223 with C or better
MHL	363	Survey of Russian Music	Examines music and musical life in Russia, the Soviet Union, and the post-Soviet C.I.S. from the Middle Ages to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	Pre-requisites: Music student; MHL 342 with C or better
MHL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	438	Topics in 18th-Century Music	Selected topics exploring the musical styles of the 18th century and their cultural contexts.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	H	Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 223 with C or better
MHL	439	Topics in 19th-Century Music	Selected topics exploring the musical styles of the 19th century and their cultural contexts.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	L & H	Pre-requisites:Must be a Music student; must have completed MHL341AND MHL342 AND MTC223 with a C or greater or be currently enrolled
MHL	440	Music Since 1900	Examines stylistic trends, major composers and their works, and cultural contexts in music since 1900.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 223 with a C or greater
MHL	456	History of Opera	Development of opera from its creation ca. 1600 to present. Emphasis placed on major stylistic developments and representative works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 222 with C or better
MHL	466	North American Indian Music	Various styles of Indian music in the United States, Canada, and Mexico. Open to Music majors and nonmajors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	(L or HU) & C	
MHL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	492	Honors Directed Study		N	THE	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MHL	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student

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MHL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 222 with C or better
MHL	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MHL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MHL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MHL	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	532	Music Bibliography	Major historical and analytical writings; systematic and historical collections of music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Graduate Music student
MHL	535	Medieval Music	Music of Europe in the Middle Ages, Gregorian chant, religious and secular monophony and polyphony to 1400.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Graduate Music student
MHL	536	Music of the Renaissance	Music in Europe, with emphasis on stylistic concepts and changes, ca. 1400-1580.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Graduate Music student
MHL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Graduate Music student
MHL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	647	Topics in American Music	Selected topics in the history of music. Composers working in the Americas with emphasis upon music since 1900.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	657	Topics in Symphonic Literature	Examines the evolution of the symphony and symphonic poem from the early classic era through the 19th century, with emphasis on the analysis of selected works.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	664	History of Music Instruments	Surveys the history and development of music instruments in traditional, folk, and art cultures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	668	Introduction to Ethnomusicology	Introduces the theory and methodology of the discipline, including bibliography, fieldwork, transcription, analysis, and organology.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	670	Area Studies in Ethnomusicology	Study of the music of a particular culture, country, or area (e.g., music of Mexico, Latin America, China, Africa).	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	675	History of Choral Music	Major choral works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

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MHL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MHL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MIC	205	Microbiology	Introductory microbiology, emphasizing basic principles of microorganisms (bacteria, protozoa, algae, fungi, and viruses) and the role they play in health, ecology, and applied fields. May not be used for Microbiology credit unless a diagnostic test is passed. Both MIC 205 and MIC 206 required for SG General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SG	
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SG	
MIC	220	Biology of Microorganisms	Introductory microbiology for students majoring in the life sciences. Detailed study of microbial cells, their structure, genetics, physiology, and taxonomy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MIC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisite: Freshman standing; Maximum 25 hours
MIC	205	Microbiology	Introductory microbiology, emphasizing basic principles of microorganisms (bacteria, protozoa, algae, fungi, and viruses) and the role they play in health, ecology, and applied fields. May not be used for Microbiology credit unless a diagnostic test is passed. Both MIC 205 and MIC 206 required for SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SG	Pre-requisites: CHM 101 or CHM 113 with a D or better
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	SG	Pre-requisites: MIC 205 or MIC 220 with a D or better, or co-enrolled in MIC 205 or MIC 220
MIC	220	Biology of Microorganisms	Introductory microbiology for students majoring in the life sciences. Detailed study of microbial cells, their structure, genetics, physiology, and taxonomy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: CHM 116 and BIO 188 (or MBB 245)
MIC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	298	Honors Directed Study		N	RSC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
MIC	302	Advanced Bacteriology Laboratory	Advanced lab techniques in bacterial growth, physiology, and genetics, with an emphasis on quantitative data and formal lab reports. Both MIC 302 and 401 must be taken to secure L General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisite: MIC 206 with C or better; MIC 220 with C or better
MIC	314	HIV/AIDS: Science, Behavior, and Society	Overview of the basic biological, behavioral, and psychosocial aspects of HIV disease and AIDS.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	360	Bacterial Physiology	Mechanisms and control of cell metabolism, structures, and functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: MIC 220 with C or better

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MIC	379	Medical Bacteriology	Principles of medical bacteriology with emphasis on bacterial infections, diagnostic testing, clinical symptoms, pathogenesis, and treatments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: MIC 220
MIC	380	Medical Parasitology	Parasitic diseases of humans, including life cycle events and clinical manifestations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: with a C or better, MIC 220
MIC	381	Pathogenic Microbes	Human host-bacterial interactions in infectious diseases with emphasis on pathogenesis and molecular mechanisms of bacterial virulence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MIC 220 and MIC 360 with a C or better
MIC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	401	Research Paper	Paper of 15 or more pages based on library or lab research in collaboration with a faculty member. Required of all Microbiology majors. Both MIC 302 and 401 must be taken to secure L General Studies credit.	N	RSC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	Pre-requisite: MIC 302 with C or better
MIC	402	Service Learning	K-12 tutoring internship; learning activities employed were originally developed as part of the Bio Reach Program. Requires weekly reflective writing. Fee.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	Pre-requisite: MIC 206 with C or better; MIC 220 with C or better
MIC	420	Immunology: Molecular and Cellular Foundations	Molecular and cellular foundations of immunology. Antibody/antigen interactions, cellular response, cytokines, immunogenetics, immunoregulation, autoimmunity, psychoneuroimmunology research/medical perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: Mic 220, with a grade of C or better
MIC	421	Experimental Immunology	Introduces the basic techniques, methods, and assays used in immunology. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: MIC 302 with a grade of C or better
MIC	425	Advanced Immunology	Surveys recent advances in immunology, including lymphocyte membranes, lymphokines/biochemistry, molecular genetics, theoretical immunology, immunoregulation, neuroimmunology, and immunologic diseases.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: MIC 420 with C or better
MIC	426	Medical Immunology	Concepts and clinical applications of medical immunology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or MBB 245) and BIO 188 (or MBB 247) and BIO 353 with a C or better
MIC	427	Immunoneuropsychology: Research Foundation	Mind and the immune system's mutual influence (including neuroimmunologic diseases), with an emphasis on the molecular and cellular mechanisms involved.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
MIC	428	Immunophilosophy	Integrates immunology and philosophy, including psychoneuroimmunology and the mind-body problem, and immunologic/psychologic perspectives on self and self-identity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MIC 420 or PHI 317 with a C or better. Students who have credit for PHI 428, may not enroll in MIC 428
MIC	441	Bacterial Genetics	Surveys genetic exchange and regulatory processes in bacteria and their viruses. Bacteria and viruses as tools in genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 340 with C or better; MIC 220 with C or better
MIC	442	Bacterial Genetics Laboratory	Techniques of mutagenesis, mapping, and strain and genetic library construction.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		Pre/Co-requisite: MIC 441
MIC	445	Techniques in Molecular Biology/Genetics	Molecular genetic principles: plasmid construction, purification, and characterization; PCR; mutageneses; hybridization and sequence analysis; protein quantitation; immunologic detection, and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: BIO 340 with C or better; MIC 302 with C or better; Students with credit for MBB 445 may not enroll in MIC 445
MIC	446	Techniques in Molecular Biology/Genetics Lab	Molecular genetic techniques; plasmid construction, purification, and characterization; PCR; mutageneses; hybridization and sequence analysis; protein quantitation; immunologic detection, and electrophoresis.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: MBB 445 or MIC 445 (with C or better if completed); Credit is allowed for only MBB 446 or MIC 446
MIC	461	Geomicrobiology	Past and present interactions among microbial life, geological materials, and biogeochemical cycles involving carbon, sulfur, phosphate, nitrogen, and metals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	470	Bacterial Diversity and Systematics	Biology, classification, and enrichment culture of the nonpathogenic bacteria. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MIC 302 with C or better
MIC	475	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	485	General Virology	Fundamental principles of viruses, their molecular biology, replication, genetics, and pathogenesis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MIC 206 with C or better; MIC 220 with C or better
MIC	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
MIC	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
MIC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	495	Undergraduate Research	Supervised research in microbiology. May be repeated for credit.	N	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
MIC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
MIC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
MIC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MIC	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	527	Neuroimmunology	Studies the mind's influence on immunity and the immune system's influence on the mind, neuroimmunologic diseases, and the neuroimmunological circuitry involved.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	585	Molecular Virology	Selected topics concerning molecular aspects of eukaryotic virus replication and pathogenesis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MIC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
MIC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MIC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
MIC	205	Microbiology	Introductory microbiology, emphasizing basic principles of microorganisms (bacteria, protozoa, algae, fungi, and viruses) and the role they play in health, ecology, and applied fields. May not be used for Microbiology credit unless a diagnostic test is passed. Both MIC 205 and MIC 206 required for SG General Studies credit.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SG	Pre-requisites: CHM 101 or CHM 113 with a D or better
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SG	Pre-requisites: MIC 205 or MIC 220 with a D or better, or co-enrolled in MIC 205 or MIC 220
MIC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MIS	101	Introduction to the Military I	Overview of mission, organization, and structure of the Army and its role in national defense; discussion of current military issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MIS	102	Introduction to the Military II	Introduces problem-solving methods, critical thinking, decision making, and group cohesion as applied in a military environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-3		Pre-requisite: Freshman standing; Maximum 25 hours
MIS	201	Introduction to Leadership Dynamics I	Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	202	Introduction to Leadership Dynamics II	Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	205	Leader's Training Course	6-week training program emphasizing practical hands-on skills and leadership development. Taken in lieu of MIS 101, 102, 201, 202. Conducted at Fort Knox, Kentucky.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	4.		
MIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	301	Advanced Military Science I	Theory and dynamics of the individual soldier and military units in offensive combat operations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	L	
MIS	302	Advanced Military Science II	Theory and dynamics of military units in defensive combat operations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	L	
MIS	303	National Advanced Leadership Camp	6-week training program emphasizing leadership development and advanced military skills, including tactics, land navigation, and physical training. Conducted at Fort Lewis, Washington.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	4.		
MIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	401	Advanced Military Science III	Military legal system; preparation and conduct of military training; leadership development; ethics and professionalism of the military officer. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	402	Advanced Military Science IV	Military correspondence; career planning and personal affairs in service; conduct of training; leadership development; ethics and professionalism of the military officer. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	410	American Defense Policy I	Evolution, organization, and execution of U.S. national security policy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	SB & G & H	
MIS	412	American Defense Policy II	Contemporary problems and analytical issues in the formation and implementation of U.S. national security.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	SB & G & H	
MIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Military Science	1-12		
MIS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Military Science	1-6	L	Pre-requisites: Must be an Honors student
MIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-7		
MIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Military Science	1-3		
MIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Military Science	0.		
MKT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-3		
MKT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		
MKT	300	Marketing and Business Performance	The dynamic role of marketing within society and organizations. Emphasizes frameworks and analytical tools that ensure customer focus and drive organizational performance.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: Non-Marketing W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA and 2.5 ASU business GPA; ECN 211 or ECN 212 with a grade of C or better or be currently enrolled.
MKT	301	Fundamentals of Marketing	Examines the role and process of marketing within the society, economy, and business organization.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Prerequisite(s): School of Global Management and Leadership student with Professional OR Conditional status
MKT	302	Applied Marketing Management and Leadership	Market planning, execution, and assessment. Emphasizes decision and communication skills related to market opportunity analyses and marketing program development as a core business function.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.	L	Pre-requisite: W.P. Carey Marketing BS student; ACC 241 and ECN 221 with C or better
MKT	303	Honors Marketing Theory and Practice	Covers basic applications of marketing concepts to problems that are common to marketing managers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Honors student; ACC 241 and ECN 221 with C or better; Students may not sign up for MKT 303 who have received a D or better in MKT 300 or MKT 302
MKT	352	Marketing Research	Knowledge and skills to make intelligent decisions in the design, evaluation and application of marketing research and market data. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.	L	Pre-requisite: W. P. Carey Marketing student; MKT 302 or MKT 303 with C or better

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MKT	360	Seminar in International Business	Broad exposure to global business and cross-cultural differences. Emphasizes the European Union history and future and the impact of financial issues on marketing practices. Lecture, discussion, group work.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and min 66 earned hours; SCM 300 with a grade of C or greater
MKT	365	Advertising Management	Advertising as a communications tool in marketing and business. Consideration of market segmentation and positioning, creative strategy, media management, and metrics of effectiveness.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student or non-business student with a minimum 2.5 ASU cum GPA, 2.5 ASU business GPA and 56 earned hours; must have completed MKT 300 or MKT 302 or MKT 303 with a grade of C or better.
MKT	390	Essentials of Marketing	Focuses on the nature and processes of marketing with an emphasis on practical application. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	391	Essentials of Selling	Focuses on the selling process and its practical applications within consumer and business markets. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	393	Essentials of Applied International Marketing	Travel to companies outside the United States to benchmark and assess cross-cultural marketing practices. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: Non-Marketing student; Minimum ASU cumulative GPA of 2.00; Minimum 56 hours OR be a Non-degree seeking student OR be a Graduate student
MKT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: Non marketing students; Must have a minimum cumulative GPA of 2.00; Must have at least 56 total earned hours or be a non-degree seeking or Graduate student
MKT	395	Essentials of Advertising and Marketing Communication	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	402	Consumer Behavior	Applies behavioral concepts in the analysis of consumer behavior and the use of behavioral analysis in marketing strategy formulation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; must have completed MKT 352 with a grade of C or better.
MKT	410	Sales and Sales Management	Constructive investigation of selling processes, their application in business and consumer contexts, and management of the sales function.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with minimum 2.5 ASU cumulative GPA, minimum 2.5 ASU business GPA and 56 earned hours; must have completed MKT 302 or MKT 303 with a grade of C or better.
MKT	410-W	Consumer Behavior	Applies social, cultural, and behavioral concepts for analyzing consumer behavior, with implications for marketing strategy and marketing communication strategy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		Pre-requisites: Must be a Global Business/Marketing student with Professional or Conditional status AND completion of MKT 300 or 301 with a grade of C or better.
MKT	413	Marketing Research Concepts and Practice	Research techniques for collecting, analyzing, and interpreting marketing information. Includes design and completion of a client-sponsored, industry-based research project.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		
MKT	414	Global Strategic Marketing	Examines marketing and marketing communication strategy development, and evaluation in the context of global markets and organizational objectives.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		Pre-requisite: Global Mgt Marketing or Int'l Studies student with conditional or professional status; MKT 300, MKT 301 or GLB 301 with C or better
MKT	415	Promotion Management	Market positioning and integration of promotional activities and marketing communications of the firm, including advertising, personal selling, public relations, and sales promotion.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cumulative GPA, 2.5 ASU business GPA and 56 earned hours; must have completed MKT 302 or MKT 303 with a grade of C or better.
MKT	420	Retail Management	The role of marketing in retailing and retail performance. Challenges and processes of retail management across various institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; must have completed MKT 302 or MKT 303 with a grade of C or better.
MKT	425	Global Marketing Management	Analyzes marketing strategies and practices developed by firms to compete in global markets and adapt to changing international environments.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 with C or better
MKT	442	Services Marketing Strategy	Concepts, skills, and strategies for addressing the imperative marketing challenges and opportunities involving service.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402
MKT	452	Business-to-Business Marketing Strategy	Concepts, skills, and strategies for performing competitively in the business market where organizations rather than households are the customers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402
MKT	462	Competitive Marketing Strategy	Strategy formulation and decision making by the marketing executive. Integrates marketing programs and considers competitive marketing issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402.
MKT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W. P. Carey Marketing BS student; MKT 302 or MKT 303 with B or better
MKT	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Marketing	1-6		
MKT	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Marketing	1-6	L	Pre-requisites: Must be an Honors student
MKT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA; MKT 302 or MKT 303 with a grade of C or better.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MKT	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-6		
MKT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-7		Pre-requisites: Business students with professional status or non-business students with a minimum cumulative GPA of 2.50 and 56 earned hours
MKT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-3		Pre-requisites: Business students with professional status or non-business students with a minimum cumulative GPA of 2.50 and 56 earned hours
MKT	502	Marketing Management	Managing the marketing function; market and environmental analysis; marketing planning, strategy, and control concepts. Development and management of marketing programs.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
MKT	510	Understanding Buyer Behavior	Examines behavioral science concepts and theories from the perspective of a marketing researcher who needs knowledge of customer behavior to aid marketing managers as they develop, evaluate, and implement effective marketing strategies for new and existing products.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	513	Marketing Research for Product Development I	Covers qualitative and interpretive methodologies designed to understand and capture the voice of customers with the aim of infusing research results into the new product development process. Covers methods such as ethnographic and observational research, visual documentation, focus groups, in-depth interviews, and artifact analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	514	Marketing Research for Product Development II	Provides theoretical and practical knowledge regarding the market assessment and survey research methods that underlie product development in organizations. Focuses on research techniques particularly applicable to the opportunity identification and concept/project evaluation stages of the new product development process.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better or currently enrolled
MKT	515	Marketing Research for Product Development III	Emphasizes theory and tools useful for refining product development decisions involving narrow product development issues. Covers research techniques that are well suited for fine-tuning new product/service decisions associated with imminent market launch. Covers experimental designs, customer choice modeling, and lab and field test marketing along with appropriate data collection, measurement, and data analysis techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better, or currently enrolled
MKT	524	Services Marketing	Strategies for marketing services emphasizing the distinctive challenges and approaches that make marketing of services different from marketing manufactured goods.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey Graduate students; Must have completed HSA 502 or MKT 502 with a grade of C or greater or be currently enrolled
MKT	530	Creativity and Innovation	Multidisciplinary approaches to theories and practices of inspiring and managing innovation and change for sustainable competitive advantage. Focuses on both the student's individual creativity and the planning and implementation of innovations, technologies, processes, or systems that pose significant uncertainty. Places special attention on the processes surrounding understanding the consumer, ideation and implementation. Inclusive in this are methods such as environmental scanning, scenario planning, contextual research, storytelling, concept testing and prototyping. Also includes the many aspects of the organization's structure and culture regarding innovation and creativity.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	550	Innovative Brand Management and Marketing Communication	Focuses on innovative approaches to brand development and management throughout the product life cycle. Emphasizes marketing communications in a fundamental aspect of this process. The demand for innovative practices is especially evident in many aspects, including new media, social media, technology, open sourcing, and customer co-creation of brands. Addresses the role of customer understanding to market success. Brand management and marketing communication are dominant innovation decision areas within marketing.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MKT	560	Customer Relationship Management	Covers approaches for customer relationship management (CRM) including assessing customer value, prospect/customer identification and targeting, assessment and development of customer life-time value, and customer attrition and retention. Covers CRM issues, techniques, and terminology associated with database marketing and data mining for analytical opportunity identification. Students must complete a project using CRM software in order to demonstrate their command of CRM issues, both conceptually and practically.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better, or currently enrolled
MKT	563	Marketing Strategy	Planning and control concepts and methods for developing and evaluating strategic policy from a marketing perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey Graduate student; MKT 502 with C or better
MKT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W. P. Carey MBA Full Time student.
MKT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: Global Management Graduate student; MKT 502 with C or better
MKT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
MKT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MKT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-15		
MKT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Marketing	1-15		
MKT	300	Marketing and Business Performance	The dynamic role of marketing within society and organizations. Emphasizes frameworks and analytical tools that ensure customer focus and drive organizational performance.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
MKT	410	Sales and Sales Management	Constructive investigation of selling processes, their application in business and consumer contexts, and management of the sales function.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
MKT	420	Retail Management	The role of marketing in retailing and retail performance. Challenges and processes of retail management across various institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
MLS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
MLS	501	Writing about Social Issues: Culture, Gender, Society, and Well-Being in the Southwest	Reading and discussion of nonfiction writing on social issues that integrate cultural, gender, and societal issues that affect the well-being of urban communities with special attention to the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	502	Religion, Culture, and Health: Where Cultures Intersect	Focuses on how cultural and religious notions may come into conflict around issues of health. Contrasts two societies, not necessarily contemporary, from different continents.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	503	Ethics, Science, and Culture	Introduces ethics related to the practice of art, science, and medical practice in modern and premodern society.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	504	Film Analysis	Introduce formal and cultural issues important to understanding movies.	N	DIS	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		Pre-requisite: Master of Liberal Studies student
MSC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MSC	345	Desert Gold Chorale	Performs folk and standard choral repertoire, including Bach, Mozart, Schubert, and Handel, as well as contemporary pop, jazz and musical theatre, including George Gershwin, Harold Arlen, Richard Rodgers, and Lennon and McCartney.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MSC	436	American Film Musicals	A cultural history of American film musicals.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	
MSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		

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MSE	100	Introduction of Materials Engineering	Engineering design process, concepts about materials, and the materials engineering profession, including teaming, computer models, communication, and societal impact. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	2.		Pre-requisites: Undergraduate Engineering or University College student
MSE	111	Challenges in Materials Engineering	Introduces current issues and concepts of materials engineering, relationship between materials properties, application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	1.		
MSE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-3		
MSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		
MSE	208	Patterns in Nature	Project-oriented science course with computer training to develop critical thinking and technical skills for student-oriented K-12 science lessons. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	4.	SQ	
MSE	211	Introduction to Mechanics of Materials	Topics include stress, strain, elasticity, axial loading, torsion, bending, yield criteria, fracture, general energy methods and Castigliano's Theorem.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: PHY 121 completed with D or currently enrolled; PHY 122 completed with D or currently enrolled; MSE 250 or ECE 350 completed with a D or currently enrolled in MSE 250
MSE	215	Materials Synthesis	Introduces contemporary techniques for synthesizing both traditional and novel materials and the corresponding correlation to synthesized materials properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre/Co-requisite: MSE 250 with C or better if completed
MSE	250	Structure and Properties of Materials	Basic concepts of material structure and its relation to properties. Application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: CHM 114 (or CHM 115) OR CHM 113 and Pre- or Co-requisite: CHM 116
MSE	308	Sensing the World	Project-oriented science course develops critical thinking and technical skill using Internet modules on the five senses.	N	LEL	N	OPT	Ira A. Fulton Engineering	Materials Program	4.	SQ	Pre-requisite: MSE 208
MSE	315	Mathematical and Computer Methods in Materials	Mathematical, computational, and statistical methods and computer programming used to model materials science phenomena and materials engineering applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	CS	Pre-requisites: Engineering BS/BSE students OR Non-Engineering students with a minimum GPA of 3.00; MAT 275 (or MAT 274) with C or better; MSE 250 with C or better
MSE	330	Thermodynamics of Materials	Principles of statistical mechanics, statistical thermodynamics of single crystals, solutions, phase equilibrium, free energy of reactions, free electron theory, and thermodynamics of defects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.00; MSE 250 or ECE 350 completed with D or better or currently enrolled in MSE 250
MSE	335	Materials Kinetics and Processing	Introduces kinetics in processing of materials as illustrated through real-world materials processing examples.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: MSE 330 completed with D or better or currently enrolled; Engineering BS/BSE students
MSE	355	Materials Structure and Microstructure	Elements of the structure of metals and alloys, measurement of mechanical properties, and optical metallography. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with a C or better,OR Graduate Engineering student
MSE	356	Materials Structure and Microstructure Lab	Lab experiments correlating atomic structure, defects and microstructure of processed metals, ceramics polymers and composites to their mechanical and thermal properties. fee	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre/Co-requisite: MSE 355
MSE	358	Introduction to Electronic, Magnetic, and Optical Properties	Introduces electrical, optical, and magnetic properties of solids and microstructure effects as examined through materials-based examples.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: MSE 315 completed with D or better or currently enrolled; Engineering BS/BSE students
MSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		
MSE	420	Physical Metallurgy	Crystal structure and defects. Phase diagrams, metallography, solidification and casting, deformation, and annealing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with D or better or currently enrolled OR Graduate Engineering student
MSE	421	Physical Metallurgy Laboratory	Focuses on analysis of microstructure of metals and alloys and includes correlation with mechanical properties to some extent. fee	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre/Co-requisite: MSE 420
MSE	431	Materials Electrochemistry and Corrosion	Introduces terms, the structure of electrified interface and review of thermodynamics of chemical reactions, Faraday's Law, electrochemical thermodynamics; metal/ion potentials, redox potentials, hydrogen and oxygen electrode, Pourbaix diagrams, electrical double layer, electrocapillarity, Lippmann equation, electrochemical kinetics, theory of overvoltage, kinetics of corrosion, mixed potential theory, polarization curves, passivation of metals, pitting, fuel cells, electrodeposition.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 330 completed with D or better
MSE	440	Mechanical Properties of Solids	Effects of environmental and microstructural variables of mechanical properties, including plastic deformation, fatigue, creep, brittle fracture, and internal friction. Credit is allowed for only MSE 440 or 516.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 355 completed with a D or better or currently enrolled in MSE 355
MSE	441	Analysis of Material Failures	Identifies types of failures. Analytical techniques. Fractography, SEM, nondestructive inspection, and metallography. Mechanical and electronic components. Credit is allowed for only MSE 441 or 512.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with a C or better or ECE 350 with D or better
MSE	450	Introduction to Materials Characterization	Introduces materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; PHY 131; MSE 355; Students who have credit for MSE 510, may not enroll in MSE 450
MSE	451	Introduction to Materials Characterization Lab	Lab for materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES. Fee.	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre-requisites: Engineering BS/BSE student; Co-requisite: MSE 450

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MSE	470	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better or currently enrolled; CEE 213, MAE 213 or MSE 211 with D or better or currently enrolled; MAT 343, MAT 242 or MAT 342 with D or better or currently enrolled
MSE	471	Introduction to Ceramics	Principles of structure and property relations in ceramic materials. Processing techniques. Applications in mechanical, electronic, and superconducting systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 or ECE 350 completed with a D or better or currently enrolled in MSE 250
MSE	475	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with C or better; May not enroll in MSE 475 if received credit for MSE 518
MSE	476	Growth and Processing of Semiconductors	Briefly introduces semiconducting materials and emphasizes the characteristics of defects in semiconductors and their influence on electronic properties. Covers principles of growth of bulk crystals, epitaxial growth, oxidation, diffusion, ion implantation, and metallization. Discusses the introduction of defects during growth and processing of semiconductors and their influence on device behavior. Credit is allowed for only MSE 476 or 519.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better. May not enroll in MSE 476, if received credit for MSE 519
MSE	482	Materials Engineering Design	Principles of the design process. Feasibility and optimization. Manufacturing processes, materials selection, failure analysis, and economics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	L	Pre-requisites: Engineering BS/BSE student; MSE 420 with a D or better or currently enrolled; Pre- or Co-requisites: MSE 470 and MSE 471 (with D or better if completed) OR Graduate Engineering students
MSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	490	Capstone Design Project	For small groups in fundamental or applied aspects of engineering materials; emphasizes experimental problems and design. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	L	Pre-requisite: Engineering BS/BSE student; MSE 482
MSE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Materials Program	1-6		Pre-requisites: Honors students only
MSE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Materials Program	1-6	L	Pre-requisites: Honors students only
MSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		Pre-requisite: Engineering BS/BSE student
MSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-7		Pre-requisite: Engineering BS/BSE or Engineering Graduate student
MSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Ira A. Fulton Engineering	Materials Program	1-3		
MSE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	510	Introduction to Materials Characterization	Introduces materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Students who have credit for mse 450, may not enroll in MSE 510
MSE	511	Corrosion and Corrosion Control	Introduces corrosion mechanisms and methods of preventing corrosion. Topics include: electrochemistry, polarization, corrosion rates, oxidation, coatings, and cathodic protection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	512	Analysis of Material Failures	Identifies types of failures. Analytical techniques. Fractography, SEM, nondestructive inspection, and metallography. Mechanical and electronic components. Credit is allowed for only MSE 512 or 441.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	513	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	514	Physical Metallurgy	Crystal structure and defects. Phase diagrams, metallography, solidification and casting, and deformation and annealing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	515	Thermodynamics of Materials	Principles of statistical mechanics, statistical thermodynamics of single crystals, solutions, phase equilibrium, free energy of reactions, free electron theory, and thermodynamics of defects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	516	Mechanical Properties of Solids	Effects of environmental and microstructural variables of mechanical properties, including plastic deformation, fatigue, creep, brittle fracture, and internal friction. Credit is allowed for only MSE 516 or 440.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	517	Introduction to Ceramics	Principles of structure, property relations in ceramic materials. Processing techniques. Applications in mechanical, electronic, and superconducting systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in CHE 518, EEE 518, or MSE 475 you may not enroll in MSE 518

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MSE	519	Growth and Processing of Semiconductors	Briefly introduces semiconducting materials and emphasizes the characteristics of defects in semiconductors and their influence on electronic properties. Covers principles of growth of bulk crystals, epitaxial growth, oxidation, diffusion, ion implantation, and metallization. Discusses the introduction of defects during growth and processing of semiconductors and their influence on device behavior. Credit is allowed for only MSE 519 or 476.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	520	Theory of Crystalline Solids	Anisotropic properties of crystals; tensor treatment of elastic, magnetic, electric and thermal properties, and crystallography of Martensitic transformations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	521	Defects in Crystalline Solids	Introduces the geometry, interaction, and equilibrium between dislocations and point defects. Discusses relations between defects and properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	523	Structural and Mechanical Properties of Materials	Designed for first-year PhD students in the School of Materials. Topics include crystallography theory, tensor properties of materials, elasticity, crystal defects, dislocation theory, plasticity, fracture, fatigue, and creep.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	524	Advanced Thermodynamics	Equilibrium thermodynamics. Chemical reactions, phase equilibria, and stability in multicomponent systems. Aqueous solutions and electrochemistry. Introduces statistical thermodynamics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Credit is allowed for only CHM 541 or MSE 524
MSE	525	Physics of Materials	Teaches fundamental concepts of applied physics as related to the solid state. Wave-particle duality and the Schrodinger equation; chemical cohesion, bonds and energy bands in metals and insulators; optical, electronic, and magnetic properties. Requires a basic knowledge of differential equations; linear algebra; and electrical, magnetic, and optical properties of materials. A course in modern physics is highly recommended, but not required.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	526	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 511 or 481.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	527	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	540	Fracture, Fatigue, and Creep	Relationship between microstructure and fracture; fatigue and creep properties of materials. Environmental effects and recent developments. Current theories and experimental results.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	550	Advanced Materials Characterization	Analytical instrumentation for characterization of materials; SEM, SIMS, Auger, analytical TEM, and other advanced research techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Credit is allowed for only MSE, NAN, PHY or SEM 552
MSE	553	Electron Microscopy Laboratory I	Lab support for MSE 552.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	1-3		Prerequisite(s): degree- or nondegree-seeking graduate. Corequisite(s): MSE 552 (or PHY 552). Credit is allowed for only MSE 553 or PHY 553
MSE	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent-beam diffraction, and electron holography. Novel developments and applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	555	Electron Microscopy Laboratory II	Lab support for MSE 554.	N	LAB	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	561	Phase Transformations, Kinetics, and Diffusion in Solids	Hetero/homogeneous diffusion-controlled transformations, order-disorder transformations, and shear martensitic) athermal transformations in solids. Courses in advanced thermodynamics and structure and properties of materials are strongly recommended in preparation for this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	562	Ion Implantation	Includes defect production and annealing. Generalized treatment, including ion implantation, neutron irradiation damage, and the interaction of other incident beams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	565	Structural Materials in Nuclear Power Systems	Provides an overview of reactor systems and discusses the structural materials used in reactor components (e.g., fuel/core, wall/blanket, heat exchanger, and steam turbine materials). Discusses design considerations and materials degradation processes that occur in service. Emphasizes the effect of radiation damage on materials properties. Reviews reactor systems, including fission- (e.g., PWR, LWR, BWR, LMFBR) and fusion-based reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MSE	570	Polymer Structure and Properties	Relationships between structure and properties of synthetic polymers, including glass transition, molecular relaxations, crystalline state viscoelasticity, morphological characterization, and processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	571	Ceramics	Includes ceramic processing, casting, molding, firing, sintering, crystal defects, and mechanical, electronic, and physical properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	573	Magnetic Materials	Emphasizes ferromagnetic and ferrimagnetic phenomena. Domains, magnetic anisotropy, and magnetostriction. Study of commercial magnetic materials.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		Pre-requisite: Materials & Science Engineering Masters student
MSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Materials Program	1.		
MSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		Pre-requisite: Graduate Engineering student OR Science & Engr of Materials student
MSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Materials Program	1-12		Pre-requisite: Materials & Science Engineering Masters student
MSE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-15		Pre-requisite: Materials Science & Engineering PhD student
MSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Materials Program	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Materials Program	1-15		Pre-requisite: Materials Science & Engineering PhD student
MTC	123	Beginning Composition	Intended for freshmen and sophomores in the composition concentration. Introduces composing. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Must be a music student in the music composition (FAMUSTCBM) plan
MTC	125	Basic Music Theory	Notation, scales, keys, modes, intervals, chords, basic part writing and composition. Development of related aural skills through sightsinging and dictation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student
MTC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MTC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	221	Music Theory: 18th Century	Styles, techniques, and idioms of 18th-century music; emphasis on analysis, composition (part writing), and related aural skills, with applications for performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 125 with C or better
MTC	222	Music Theory: 19th Century	Styles, techniques, and idioms of 19th-century music; emphasis on analysis, composition (part writing), and related aural skills, with applications for performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 221 with C or better
MTC	223	Music Theory: 20th Century	Styles, techniques, and idioms of 20th-century music; emphasizes innovative treatments of musical elements, analysis, and composition; related aural skills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 222 with C or better
MTC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MTC	315	Modern Arranging	Techniques in arranging for the contemporary jazz, radio, television, and studio orchestra.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a Music student; MTC 223 with C or better
MTC	316	Modern Arranging	Continuation of MTC 315.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Prerequisite: Bachelor of Music student; MTC 315 with C or better
MTC	320	Modal Counterpoint	Counterpoint based on 16th-century vocal polyphonic style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MTC	321	Tonal Counterpoint	Counterpoint based on 18th-century polyphonic style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MTC	323	Composition	Writing music compositions, with emphasis on basic techniques and smaller structures. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisites: Must be a Bachelor of Music student
MTC	327	Intermediate form and Analysis	Organizing elements in the most important contrapuntal and homophonic musical forms from the Renaissance through the 19th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC222 with a C or greater or be currently enrolled
MTC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	422	Musical Acoustics	Properties of sound and tone. Harmonic series, instruments, the ear, auditorium acoustics, and the reproduction of sound. Assumes a thorough knowledge of musical notation, intervals, scales, and harmony, or 2 years of music theory.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; Passed audition
MTC	425	Studies in 20th-Century Theory	Continued development of analytical techniques and aural skill, with an examination of theoretical systems applicable to 20th-century music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC223 with a C or greater or be currently enrolled
MTC	428	Advanced form and Analysis	Organizing principles of the large forms of musical composition in the 19th and 20th centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC223 with a C or greater or be currently enrolled
MTC	429	Canon and Fugue	Writing of canons and fugues in tonal style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MTC 321 with C or better
MTC	430	20th-Century Counterpoint	Counterpoint studies utilizing 20th-century idioms.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MTC 223 with C or better
MTC	433	Orchestration	Studies scoring music for full and chamber orchestras; examines individual orchestral instruments (characteristics and performance techniques).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student
MTC	436	Electronic Studio Techniques I	Principles of analog electronic music systems and their application in the composition of electronic music. Assumes a thorough knowledge of music notation and intervals.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	437	Electronic Studio Techniques II	Principles of digital electronic music systems and their applications in the composition of electronic music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	440	Jazz Theory and Ear Training	Advanced study of jazz harmonic systems. Daily oral drills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	441	Jazz Composition	Creative writing in the smaller forms and in the idiom of jazz.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisites: Must be a Music student; must have completed MTC 321 AND MUP 236 with a C or greater or be currently enrolled
MTC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MTC	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MTC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	495	Final Project	Half recital of compositions or approval of a large-scale composition or a research paper.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Music	0.		
MTC	496	Theory Project	Supervised individual writing project dealing with music theory.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		

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MTC	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MTC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MTC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MTC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	516	Baroque Music	Detailed analysis of selected examples of music from the Baroque period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	517	Classic Music	Detailed analysis of selected examples of music from the Classic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	518	Romantic Music	Detailed analysis of selected examples of music from the Romantic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	519	Late 19th-Early 20th Century Music	Detailed analysis of selected examples of music from the late 19th and early 20th centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	520	Analytical Techniques	Analytical techniques systematically applied to music. Concentration on structural and compositional procedures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	523	Advanced Composition	Advanced music composition, including complex techniques and larger structure. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisite: Graduate Music student
MTC	525	Pedagogy of Theory	Practices and principles of teaching music theory. Emphasizes most desirable and practical offerings possible. Comparative studies of existing practices.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	527	History of Music Theory	Theory from Pythagoras to the 16th century. Need not be taken in sequence with MTC 528.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	528	History of Music Theory	Theory from the 17th century to the present. Need not be taken in sequence with MTC 527.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisite: Graduate Music student
MTC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		

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MTC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	723	Advanced Composition	Special problems in writing in complex forms and textures.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MTC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed MAT 113, 114, 117, 119, 142, 170, 210, 270 or 271 with a grade of D or greater or be currently enrolled.
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed MTE 180 with a grade of D or greater or be currently enrolled
MTE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Pre-requisite: Freshman standing; Maximum 25 earned hours
MTE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MTE	380	Arithmetic in the Elementary School	Historical numeration systems, overview of elementary number theory, including primes, factorization, divisibility, bases, modular systems, linear congruence, and continued fractions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	381	Geometry in the Elementary School	Informal geometry, including concepts of length, area, volume, similarity, and congruence. Classification of figures, straightedge and compass constructions, and motion geometry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in mathematics education. Requires weekly reflective reading and writing. May be repeated for credit. Fee.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	C	
MTE	482	Methods of Teaching Mathematics in Secondary School	Examines secondary school curricular material and analyzes instructional devices. Teaching strategies, evaluative techniques, diagnosis, and remediation and problem solving. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	483	Mathematics in the Secondary School	Topics in geometry, number theory, algebra, and analysis. Emphasizes unifying principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MTE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MTE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
MTE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
MTE	585	Modern Geometry for Teachers	Euclidean, projective, and non-Euclidean geometries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	587	Analysis for Teachers	Subject matter in mathematics appropriate for accelerated programs in secondary schools, including analytic geometry and calculus.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MTE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MTE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MTE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MTE	588	Analysis for Teachers		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MTE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MTE	482	Methods of Teaching Mathematics in Secondary School	Examines secondary school curricular material and analyzes instructional devices. Teaching strategies, evaluative techniques, diagnosis, and remediation and problem solving. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MU	502	Hist Musical Style		N	LEC	N	CNV	Herberger College of the Arts	School of Music	2.		
MUE	110	Introduction to Music Education	Overview of music education. Orientation to student characteristics, teacher roles, and foundations of philosophy and history. Requires school observations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student
MUE	161	Introduction to Music Therapy	Overview of the profession of music therapy and its applications in mental health, rehabilitation, and special education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MUE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	211	Music in Recreation	Materials, methods, and organizational structures appropriate for recreational music.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	261	Music Therapy as a Behavioral Science	Orientation to preclinical experience with emphasis on observation skills, assessment, goal setting, and professional ethics. Requires off-campus observations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MUE161 with C or better
MUE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUE	310	Music in Early Childhood Education	Identifying and understanding musical needs of young children. Methods and materials for program development for classroom teachers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	311	Music for Classroom Teacher	Development of the classroom music program in the elementary school. No previous music experience or course work required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	313	Elementary Music Methods	Methods of instruction, planning, and presentation of appropriate contents in music. For music educators and music therapists.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisite: Music student
MUE	315	General Music in Secondary Schools	Curriculum, student characteristics, and teaching strategies for general music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student
MUE	317	Educational Methods for Violin and Viola	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	318	Educational Methods for Cello and String Bass	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	327	Educational Methods for Trumpet and Horn	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	328	Educational Methods for Trombone, Euphonium, and Tuba	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	335	Educational Methods for Guitar	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	336	Educational Methods for Percussion	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Education student
MUE	337	Educational Methods for Flute, Clarinet, and Saxophone	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	338	Educational Methods for Double Reed Instruments	Teaching and playing skills for music teachers. 3 hours per week.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	361	Music Therapy Theory and Practice in Psychopathology	Influence of music on behavior; principles and practices of music therapy and psychiatric clients.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	362	Music Therapy Techniques	Organization, administration, and use of music in rehabilitation with various client populations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Prerequisites: Must be a Music Therapy student; must have completed MUE361 with a C or greater or be currently enrolled
MUE	381	Music Therapy Research	Statistics and research design appropriate for investigations in music therapy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	Pre-requisite: Music Therapy student
MUE	384	Therapy Preclinical I	Paired students provide music therapy for small groups at a community agency for mentally retarded, geriatric, or physically disabled clients for a minimum of 10 clock hours.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	385	Therapy Preclinical II	Individual placement in ASU Music Therapy Clinic.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better

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MUE	386	Therapy Preclinical III	See MUE 385.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	387	Therapy Preclinical IV	Individual clinical work in a community mental health facility.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	388	Therapy Preclinical V	See MUE 387.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	389	Repertoire for Music Therapy	Music skills repertoire for music therapy, including units on brass, strings, woodwinds, electronic instruments, computer music, and improvisation techniques.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Prerequisite: Must be a Music Therapy student; must have completed MUE211 with a C or greater or be currently enrolled
MUE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisite: Music Therapy student
MUE	441	Psychology of Music	Psychological and physiological aspects of music emphasizing musical behavior, function, perception, and learning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	475	Group Process and Music Therapy	Principles of group process, verbal counseling, professional writing, as related to music therapy practice.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-3		Prerequisites: Must be a Music Therapy student; must have completed MUE362 with a C or greater or be currently enrolled
MUE	476	Internship in Music Therapy	Full-time, 6-month, off-campus residency in an approved clinical institution.	N	PRA	N	Z1	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 211 with C or better
MUE	480	Choral Methods	Methods of instruction, organization, and presentation of appropriate content in choral music classes.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	481	Instrumental Practicum/Methods	Instrumental music as a means of developing music skills, understandings, and attitudes in elementary and secondary school students.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	482	Instrumental Practicum/Methods	See MUE 481.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	485	String Practicum/Methods	For students preparing to administer a string program and teach strings at the elementary level.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MUE	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MUE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MUE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MUE	548	Introduction to Research in Music Education	Survey of research methods and literature in music education. Focuses on interpretation and evaluation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	549	Foundations of Music Education	A treatment of historical perspectives, philosophy-aesthetics identified with music education, and learning theories applied to music teaching/learning. Basic research and writing skills appropriate to graduate studies in music education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	550	Studies in Music Curricula	Scope and sequence of musical experiences. Develops criteria for the evaluation of music curricula.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	551	Advanced Studies in Elementary School Music	For experienced teachers; organization and content of K-6 general music classes. Emphasizes teaching music reading and ear training to young children.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	552	Advanced Studies in Secondary General Music	Organization and content of school music classes that are not performance oriented.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	560	Jazz Pedagogy	Study of pedagogy, repertoire, and technique of instruction in jazz styles, ensemble techniques, and performance practice for school ensembles.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	562	Jazz Rehearsal Techniques	Conducting and rehearsal techniques for school jazz ensembles.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	564	Instrumental Music, Advanced Rehearsal Techniques	In-depth analysis of instrumental techniques in preparation for a thorough discussion of band tuning problems and solutions. Discussion of productive conducting and rehearsal techniques for school music teachers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	566	Instrumental Literature and Pedagogy for Schools	Provides an in-depth examination of ensemble music and teaching techniques to instrumental music teachers.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	568	Choral Music, Advanced Rehearsal Techniques	Musical and vocal techniques necessary for presentation of choral literature. Analysis and experimentation with psychological, acoustical, and other problems of rehearsal and performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	570	Choral Literature for Schools	Comprehensive study and analysis of choral music for the high school with special emphasis on octavo literature.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		

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MUE	571	Music Therapy Seminar I: Supervision and Administration	Covers health care administrative skills pertinent to music therapy practice, including budgeting, resource allocation, and staff supervision.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	572	Music Therapy Seminar II with Lab: Advanced Practice in Music	Deepens and broadens knowledge and skills in music therapy clinical practice.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	573	Music Therapy Seminar III with Lab: Music Therapy Theory and Philosophy	Explores current theory in music therapy and develops the theoretical basis for the profession.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music Therapy MM student
MUE	574	Music Therapy Music Skills I: Improvisation	Teaches new forms of musical improvisation pertinent to music therapy practice, broadening and deepening existing skills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Therapy MM student
MUE	575	Music Therapy Music Skills II: Accompaniment	Teaches new forms of musical accompaniment pertinent to music therapy practice, broadening and deepening existing skills.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Therapy MM student
MUE	579	Psychology of Music	Nature of musicality and its evaluation. Review of recent research.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	585	Vocal Acoustics and Production	In-depth approach to the psychological/physiological workings of the vocal mechanism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	586	Music Therapy Graduate Clinical Project	Develops clinical- and research-based music therapy skills in selected cognate area.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisites:Completed MUE 571, 572, 574, and 575, or currently enrolled.
MUE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	744	Higher Education Instruction	Philosophical and psychological principles of college/university teaching. Patterns of music teacher education and a projection of course outlines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	755	Historical Research in Music Education	Knowledge and insights related to conducting historical research in music education. Includes development of a mini-proposal for a dissertation on the history of music education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUP	100	Concert Attendance	6 semesters required for all music majors. A total of 4 convocations and 6 approved recitals required each semester.	N	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	0.		
MUP	111	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	117	Applied Jazz Improvisation	Principles, methods, and theory of jazz performance and pedagogy. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	121	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	127	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisites: Music students who have passed audition
MUP	131	Class Piano	4-semester sequence (with MUP 132, 231, and 232) designed for those with little or no piano experience. Emphasizes keyboard technique, sight reading, simple accompaniments, and improvisation. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	132	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Prerequisites: Must be a Music Therapy student; must have completed MUP131 with a C or greater or be currently enrolled
MUP	133	Class Voice	4-semester sequence (with MUP 134, 233, and 234) open to all students. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	133	Class Voice	4-semester sequence (with MUP 134, 233, and 234) open to all students. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	134	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	141	Jazz Fundamentals	Principles, methods, and theory of jazz performance and pedagogy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		Pre-requisites: Music students who have passed audition
MUP	209	Beginning Choral Conducting	Essentials of choral conducting techniques. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	210	Beginning Instrumental Conducting	Essentials of instrumental conducting techniques. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	217	Applied Jazz Improvisation	Emphasizes basic jazz literature, chord symbol reading, melodic patterns and concepts, ear training, analysis of improvised solos, and pedagogical issues.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: MUP 117 with C or better
MUP	231	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student; MUP132 with C or better
MUP	232	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student; MUP231 with C or better
MUP	233	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	234	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUP	235	Jazz Piano	2-semester sequence (with MUP 236) designed for jazz keyboard experience. Emphasizes chord symbol reading, simple improvisation, and voicing. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	236	Jazz Piano	See MUP 235.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	237	Fretboard Harmony	Scales, chords, harmony, basic improvisation for the guitar. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	250	Diction for Singers	Use of phonetics in the study of song and opera literature. Language emphasis differs each semester. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music students who have passed audition
MUP	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	301	Advanced Class Piano	Required for the choral-general concentration of the Music Education major. Open to other music majors who have completed MUP 232. Emphasizes accompaniments, ensemble playing, score reading, advanced harmonizations, repertoire, technique, and improvisation. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student; MUP 232 with C or better
MUP	302	Advanced Class Piano	Required for the choral-general concentration of the Music Education major. Open to other music majors who have completed MUP 301. A sequential continuation of MUP 301 skills that include both group and studio instruction. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student; MUP301 with C or better
MUP	311	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	317	Applied Jazz Improvisation	Emphasizes listening, analysis, and performance of advanced jazz literature and composition in contemporary styles. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	319	Recording Studio Techniques	Study of both analog and digital recording methods. Includes lab time on recording console and tape machines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	321	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	327	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		Pre-requisites: Music students who have passed audition
MUP	337	Studio Instruction: Collaborative Piano	Repertoire to be selected from vocal and instrumental literature. 1 hour lesson per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	339	Choral Conducting	Elements of choral conducting technique and interpretation. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	340	Instrumental Conducting	Fundamentals of score reading and interpretation of instrumental music. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	344	Chamber Orchestra	Important masterpieces from all periods of music are performed throughout the year.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	345	Symphony Orchestra	Over a 4-year period, the student is introduced to the masterpieces of symphony orchestra literature. 3 times per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	346	Sinfonietta	Symphonic orchestra that presents approximately six concerts annually, performing masterpieces of the classical repertoire. 3 times per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	350	Choral Union	Open to all students in the university and to interested singers in the community by audition. Preparation and performance of the larger choral works. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	352	Chamber Singers	Important masterpieces from all periods of music are performed. May be repeated for credit.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	353	Symphonic Chorale	4 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	355	Men's Chorus	Rehearsal and performance of music for mixed voices. 3 hours per week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	357	Women's Chorus	2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	361	Marching and Concert Bands	Staging of formations and drills for football games and other events (fall); masterpieces of symphonic band literature (spring). Meets daily.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	362	Wind Ensemble	Rehearsal and performance of literature for wind ensemble. 2 hours per week in fall, 4 hours in spring. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	363	Chamber Winds	Rehearsal and performance of advanced literature for chamber winds. 2 hours per week. Performing ensemble. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition

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MUP	370	Music Theatre: Techniques	Exercises and improvisations for the singer/actor emphasizing body awareness, basic music theater performance skills, and freedom of the vocal and breath mechanisms. Section 1 (Movement for Singers); Section 2 (Expression); Section 3 (Interpretation); Section 4 (Advanced Expression); Section 5 (Advanced Interpretation). Sections 2 through 5 must be taken in sequence. Each section: 3 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	371	Music Theatre: Workshops	Development of specific skills for musical-dramatic interpretation. Section 1 (Aria Preparation); Section 2 (Broadway I); Section 3 (Broadway II).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	372	Music Theatre: Orchestras	Participation in Lyric Opera Theatre productions. Section 1 (Orchestra); Section 2 (Chamber Orchestra); Section 3 (Chamber Ensemble). May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	373	Music Theatre: Performance	Participation in Lyric Opera Theatre productions. Section 1 (Principal Roles); Section 2 (Chorus). May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	374	Music Theatre: Production	Participation in Lyric Opera Theatre productions. Section 1 (Vocal Performance); Section 2 (Technical Music Theatre); Section 3 (Problems in Production) to be taken concurrently with MUP 373, Section 2.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	376	New Music Ensemble	Rehearsal and performance of music written in the last 20 years.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	377	Brass Choir	Specializing in public performance of music written for brass instruments. 2 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	379	Chamber Music Ensembles	Brass, guitar, keyboard, mixed, percussion, string, vocal, and woodwind ensembles. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	385	Percussion Ensemble	Rehearsal and performance of standard and original repertoire for the percussion ensemble and related instruments. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	386	Jazz Band	Rehearsal and performance of new, traditional, and Latin literature for jazz bands. 4 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	387	Ethnomusicology Ensembles	Performance learning experience for the music of various cultures of the world.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	388	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUP	440	Keyboard Harmony	Performance-oriented class emphasizing chord progressions, harmonization, figured bass realization, stylistic improvisation, transposition, open score reading, and sight reading.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	451	Repertoire	Literature available for performance in all performing media.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	453	Song Literature	Early Italian, English, German, and French art song.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	454	Song Literature	American, Russian, Spanish, Scandinavian, and contemporary song.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	481	Performance Pedagogy and Materials	Principles and methods of performance techniques for each performance field. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	482	Piano Pedagogy	Continuation of MUP 481 (Piano). Problems and techniques of teaching intermediate to advanced piano students.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Music students who have passed audition
MUP	487	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week. May be repeated for credit. May not be taken for audit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Music students who have passed audition
MUP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music students who have passed audition
MUP	495	Performance	For candidates of a BM degree in which 1/2 recital is a requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	0.		Pre-requisites: Music students who have passed audition
MUP	496	Performance	For candidates of a BM degree in which a full recital is a requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	0.		Pre-requisites: Music students who have passed audition
MUP	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		Pre-requisites: Music students who have passed audition
MUP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		Pre-requisites: Music students who have passed audition

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MUP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	507	Group Piano Practicum	Curricula, materials, and teaching techniques for group teaching at the university and community college levels. Observation/supervised teaching in group piano.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	508	Studio Observation	Weekly observation of studio teaching by various piano faculty. Paper as final requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	509	Jazz Keyboard Harmony	Emphasizes jazz chords and chord progressions, harmonization, voicing, and analysis of transcriptions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	510	Jazz Keyboard Harmony	Continuation of MUP 509.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	511	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		
MUP	517	Advanced Improvisation	Improvisation techniques within the context of advanced jazz literature. Must be taken in sequence with MUP 518.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	518	Advanced Improvisation	Continuation of MUP 517.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	521	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	527	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour per week. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
MUP	540	Advanced Conducting	Score preparation and conducting techniques for instrumental music. Concentration on study of historical styles. Required of DMA students in Instrumental Music.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	541	The Art Song	Seminar on solo song from its beginning to the present day.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	544	Chamber Orchestra	Important masterpieces from all periods of music are performed throughout the year. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	545	Symphony Orchestra	Masterpieces of symphony orchestra literature. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	546	Sinfonietta	Symphonic orchestra that presents approximately six concerts annually, performing masterpieces of the classical repertoire. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	550	Choral Union	Open to all students in the university and to interested singers in the community by audition. Preparation and performance of the larger choral works. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	551	Repertoire	Literature available for performance in all performing media. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	552	Chamber Singers	Important masterpieces from all periods of music are performed. May be repeated for credit for a total of 8 hours.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	553	Symphonic Chorale	4 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	555	Men's Chorus	Rehearsal and performance of music for mixed voices. 3 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	557	Women's Chorus	2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	561	Marching and Concert Bands	Staging of formations and drills for football games and other events (fall); masterpieces of symphonic band literature (spring). Meets MWF. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	562	Wind Ensemble	Rehearsal and performance of literature for wind ensemble. 4 hours per week. May be repeated for credit. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	563	Chamber Winds	Rehearsal and performance of advanced literature for chamber winds. 4 hours per week. May be repeated for credit. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	570	Music Theatre: Techniques	Exercises and improvisations for the singing actor emphasizing body awareness, isolations, and freedom of the vocal and breath mechanisms. Section 1 (Interpretation); Section 2 (Expression); Section 3 (Movement for Singers). Each Section: 3 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	571	Music Theatre: Workshops	Development of specific skills for the musical-dramatic interpretation. Section 1 (Role Preparation); Section 2 (Styles); Section 3 (Opera Scenes); Section 4 (Musical Comedy); Section 5 (Revue Ensembles).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	572	Music Theatre: Orchestras	Participation in Lyric Opera Theatre productions. Section 1 (Orchestra); Section 2 (Chamber Orchestra); Section 3 (Chamber Ensemble). May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUP	573	Music Theatre: Performance	Participation in Lyric Opera Theatre productions. Section 1 (Principal Roles); Section 2 (Chorus).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	574	Music Theatre: Production	Participation in Lyric Opera Theatre productions. Section 1 (Vocal Performance); Section 2 (Technical Music Theatre); Section 3 (Problems in Production) to be taken concurrently with MUP 573, Section 2.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	576	New Music Ensemble	Rehearsal and performance of music written in the last 20 years. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	579	Chamber Music Ensembles	String, brass, woodwind, percussion, keyboard, vocal, and mixed ensembles. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	581	Performance Pedagogy and Materials	Principles and methods of performance techniques for each performance field. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	585	Percussion Ensemble	Rehearsal and performance of standard and original repertoire for the percussion ensemble and related instruments. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	586	Jazz Band	Rehearsal and performance of new, traditional, and Latin literature for jazz bands. 4 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	587	Ethnomusicology Ensembles	Performance learning experience for the music of various cultures of the world. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	588	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	596	Solo Performance	May be full recital, major operatic role, solo performance with orchestra, ensemble, or lecture recital.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	597	Solo Performance	See MUP 596.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUP	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	671	Choral Repertoire	Examines large choral/orchestral works to determine their musical and textual characteristics from a conductor's point of view.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	727	Studio Instruction	Minimum contact of 1 hour per week. May be repeated for credit. Conducting students register for 2 semester hours; all other students register for 4 semester hours. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		
MUP	751	Seminar in Piano Literature	In-depth study of selected topics related to the standard piano literature. Requires research paper, bibliography, class presentation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	796	Solo Performance	May be repeated for credit.	N	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUS	340	Survey of Music History	Major periods, composers, and compositions in the history of music.	N	LEC	N	OPT	Herberger College of the Arts	School of Music	3.	HU & H	
MUS	100	Fundamentals of Music Notation	Provides nonmusic majors with sufficient symbol literacy to begin work in the field of musical learning. Credit not applicable toward any music degree.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUS	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C	
MUS	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C	
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	355	Survey of American Music	Growth and development of American music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	
MUS	355	Survey of American Music	Growth and development of American music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	

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MUS	356	Survey of Musical Theatre	Music's place in Broadway musicals, viewed in terms of historical importance, cultural identity, and relative function. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	410	History of Women in Music	Surveys musical achievements of women as well as the historical contexts that shaped and defined their artistic development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	
MUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MUS	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MUS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUS	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUS	340-W	Listening to Music	Major periods, composers, and compositions in the history of music.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	349	Music in America	Current styles of American music including jazz, popular, and folk music.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	356	Survey of Musical Theatre	Music's place in Broadway musicals, viewed in terms of historical importance, cultural identity, and relative function. Fee (hybrid/Internet).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	357	Aesthetic Perception in Music Performance	2 hours per week. May be repeated for credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
MUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
MUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	356	Survey of Musical Theatre	Music's place in Broadway musicals, viewed in terms of historical importance, cultural identity, and relative function. Fee (hybrid/Internet).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	

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NAN	505	Nanoscience and Society	Integrates nanoscience and nanotechnology with potential societal issues involved in the students' NAN 593 Applied Projects. Coordinated by the faculty and research staff at the Center for Nanotechnology in Society.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
NAN	506	Innovation and IP Management	Intellectual Property (IP) Management in the context of innovation (research, regulations, manufacture, access to markets, and trade) with emphasis on strategies, public-private interface, licensing, and technology transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
NAN	511	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311; PHY 315; Credit is allowed for only MSE 526, NAN 511, PHY 511, or PHY 481
NAN	512	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	527	Electroanalytical Chemistry	Theoretical and practical considerations for modern electroanalytical chemistry, including voltammetry, potentiometry, and microelectrode analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.		Pre-requisites: CHM 346 with C or better. Credit is allowed for only CHM 527 or NAN 527
NAN	542	Topics in Biophysics	Overview of modern biology, length scales: emphasizes molecular and cellular biology. Nonequilibrium systems: compare and contrast stochastic processes in biological and physical systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only MSE 552, NAN 552, PHY552 or SEM 552
NAN	564	Bionanotechnology	The use of biomolecules, bioelectronics, and biomedicine for applications in nanotechnology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	571	Quantum Physics	Review modern physics, chemistry, math. Differential equation, operator, matrix formulations. Free particle, bound state problems. Examples across physics and astronomy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only NAN 571 or PHY 571
NAN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
NAN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
NAN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
NLM	160	Voluntary Action and Community Leadership	Introduction to voluntary behavior in American society for students interested in volunteerism, community service, and civic engagement.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
NLM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	210	Community Services and Professions	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: Nonprofit Leadership and Mngmnt student with NLM 160 (or NLM 191) with C or better if completed OR Recreation (nonprofit emphasis) student with REC 120 with C or better if completed
NLM	220	Introduction to Nonprofit Organizations	Introduces the nonprofit sector and its role in developing the cultural, economic, and social impact in U.S. society.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	300	Fund Raising and Resource Development	Theory and practice of philanthropy, resource acquisition methods through ethical fund raising, and earned income approaches for nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
NLM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: NLM 160 (or NLM 191) with C or better if completed
NLM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-or Co-requisite: NLM 160 (or NLM 191) with C or better if completed
NLM	310	Volunteer Management	Administration of volunteer service programs. Studies and analyzes the volunteer personnel process.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	320	Professional Development Seminar	Professional seminar featuring nonprofit executives; variable topics on leadership and management concerns. Forum for exchange between students and professionals.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		
NLM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: NLM 410, PRM 304, REC 330 or TDM 372 with a C or better or currently enrolled
NLM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: Nonprofit Leadership & Mgmt, or Recreation(Mgt) students. Received a C or better in NLM 410 or currently enrolled
NLM	410	Social Entrepreneurship	Introduces social entrepreneurship, including how ideas are formulated, constructed, and implemented; experiential learning in developing a social enterprise plan. Credit is allowed for only NLM 410 or 562.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites:MAT 142 or higher;NLM or Recreation Management (nonprofit emphasis) major;2.50 ASU GPA;45 minimum hours;grade of C or better in ENG 102, NLM 210, & 220
NLM	420	American Humanics Institute	National Management Institute for preparation of nonprofit professionals. Requires out-of-state conference.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-2		
NLM	430	Managing Nonprofit Organizations	Analyzes administrative structures, decision making, and program delivery within nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must be Academic Level Senior or higher; Earned grade of C or better in NLM 220 or REC 220 or currently enrolled.
NLM	435	Service Learning for Community Development	Applies youth and adult development theories through community service immersion in collaboration with local nonprofit partners.	N	DIS	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Pre-requisites: Earned grade of C or better in NLM 402, 430, PRM 401, 402 or TDM 401, 402 in; Earned grade of C or better in TDM403, NLM403 or PRM403 or have completed REC 350 or REC 440 with C or better. Academic level senior
NLM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
NLM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
NLM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
NLM	501	Program Evaluation and Information Management	Develops skills in several areas, including evaluation, needs assessment, information and data collection, data management and analysis, computer applications, and report writing.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	510	Foundations of Nonprofit Management	Explores the history and role of the nonprofit sector in American society; contemporary issues and delivery systems. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
NLM	520	Financial Management in Nonprofit Organizations	Reviews funding structures utilized by nonprofit organizations; financial tools used by managers; fund raising practices and tools. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	540	Volunteer and Human Resources in Nonprofit Organizations	Managing the volunteer and paid staff human resources in nonprofit organizations; practices and theories. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	550	Philanthropy: Theory and Practice	Provides overview of selected fundraising topics and insight into both the theory and practice of this area.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	560	Leadership and Ethics in the Nonprofit Sector	Examines leadership and ethical questions encountered by managers and leaders in the nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	562	Social Entrepreneurship	Introduces social entrepreneurship, including how ideas are formulated, constructed, and implemented; experiential learning in developing a social enterprise plan. Credit is allowed for only NLM 562 or 410.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	584	Internship		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
NLM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
NLM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-12		
NLM	610	Executive Leadership and Governance	Examines the multiplicity of roles for executives and board of directors in providing strategic leadership for nonprofits.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	620	Critical Issues Facing Nonprofits	Improves understanding of trends emerging within nonprofits such as leadership, resource development, and social responsibility.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Prerequisite: Master of Nonprofit Studies major
NTR	100	Introductory Nutrition	Basic concepts of human nutrition. Recent controversies in nutrition and how food choices affect personal health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	142	Applied Food Principles	Applied scientific principles of food preparation and production.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nutrition (Food/Nutrtn Mngt), Nutrition (Human Nutrition), Nutrition (Dietetics), or Nutrition (Nutrition Comm) student
NTR	150	Introduction to the Professions in Nutrition and Dietetics	Introduces the professions of nutrition and dietetics; their history, practice, and future; credentials, ethics, and standards of practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
NTR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	241	Human Nutrition	Principles of human nutrition. Emphasizes nutrient metabolism and the relationships between diet and disease.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: CHM 101 or CHM 113 with D or better
NTR	300	Computer Applications in Nutrition	Introduces nutrition and food software, including dietary assessment and analysis, food inventory and control, and telecommunications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	CS	Pre-requisites: Must have completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	320	History of Human Nutrition	Origins of human nutrition; evolving theories of nutrition and disease; historical role of nutrition in social, military, cultural events.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NTR 100 or 241

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NTR	340	Applications in Human Nutrition	Applies nutrient metabolism through case studies and product evaluations; special topics in human nutrition.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: BIO 201; NTR 241
NTR	341	Introduction to Planning Therapeutic Diets	Cultural, health, and economic aspects of planning therapeutic diets. Assessments of food and diet composition. Reviews common therapeutic diets. Credit is allowed for only NTR 341 or 345. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	343	Food Service Purchasing	Introduces purchasing systems, bid processes, receiving and storage procedures, and regulatory agencies involved in the food service industry.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 142 with D or better
NTR	344	Nutrition Services Management	Organization, administration, and management of food and nutrition services in hospitals and other institutions.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: FON 100, FON 241, NTR 100 or NTR 241
NTR	345	Development of Healthy Cuisines	Principles and applications of nutrition and medical nutrition therapy; development of healthy cuisines in health and disease states. Credit is allowed for only NTR 345 or 341.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or less than in NTR 341 or completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	346	Sports Nutrition	Nutritional needs of recreational and elite athletes; energy balance; nutrient metabolism during activity; fluid-electrolyte regulation; evaluation of ergogenic supplements.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or better in FON 241 or NTR 241 or be currently enrolled AND earned D or better or currently enrolled in BIO 202
NTR	348	Cultural Aspects of Food	Origins, development, and diversity of food preferences and dietary habits; food patterns and attitudes of global populations and U.S. immigrants.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB & C & G	Pre-requisites: NTR 100 or 241
NTR	350	Nutrition Counseling	Counseling techniques in nutrition; interpersonal and communication skills in clinical and community sites; nutrition education for individuals and populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisites: NTR 341 with C or better or NTR 345
NTR	351	Nutrition and Health Communications	Approaches of nutrition and health communications; development of nutrition and health communication materials for selected target audiences.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NTR 100 or 241
NTR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	400	Preprofessional Preparation in Dietetics	Applies academic knowledge in field practicum; aspects of professional development.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed NTR 440, NTR 441, or NTR 444 with D or better or be currently enrolled AND earned D or better in NTR 341 or be currently enrolled.
NTR	401	Professional Practice in Food Service Management	Applies academic knowledge in food service management to field practicum; develops practical skills in planning, purchasing, production, management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or better in NTR 343 or NTR 445 or be currently enrolled
NTR	440	Advanced Human Nutrition I	Metabolic reactions and interrelationships of vitamins, minerals, and water.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: BIO 202 with C or better; NTR 241 with C or better; NTR 340 with C or better; Credit is allowed for only NTR 440 or 540
NTR	441	Advanced Human Nutrition II	Metabolic reactions and interrelationships of carbohydrate, lipid, and protein.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: You may not enroll in NTR 441, if you have credit for NTR 541; BIO 202 with D or better; BCH 361 with C or better; NTR 241 with D or better
NTR	442	Experimental Foods	Food product development techniques, food evaluation and testing, and investigation of current research into food composition. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Earned D or better in NTR 142 or FON 142 or currently enrolled in NTR 142 AND earned D or better in CHM 231 or CHM 331 or currently enrolled.
NTR	444	Medical Nutrition Therapy	Principles of medical nutrition therapy for prevention and treatment of disease and promotion of health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 341 or FON 341 with C or better OR enrolled in NTR 341; BIO 202; Credit is allowed for only NTR 444 or 544
NTR	445	Management of Food Service Systems	Standardized methods of quantity food preparation, operation of institutional equipment, institutional menu planning, quantity food experiences. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 100 or NTR 241 with D or better; NTR 142 with D or better
NTR	446	Human Nutrition Assessment Lecture/Laboratory	Clinical and biochemical evaluation of nutritional status. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned C or better in BCH 361 or currently enrolled AND earned C or better or currently enrolled in NTR 440 or NTR 441
NTR	448	Community Nutrition	Food-related behaviors; organization and delivery of nutrition services; program design, implementation, and evaluation strategies; nutrition assessment of populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisite: NTR 100 or NTR 241 with D or better
NTR	450	Nutrition in the Life Cycle I	Emphasizes nutritional needs and problems during pregnancy, lactation, infancy, and childhood.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisite: NTR 100 or NTR 241; Credit is allowed for only NTR 450 or 550
NTR	451	Nutrition in the Life Cycle II	Nutritional needs and problems of adults, particularly the elderly.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 100 or 241
NTR	492	Honors Directed Study		N	THE	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NTR	493	Honors Thesis		N	THE	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
NTR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
NTR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	501	Research Methods in Nutrition II	Reviews survey, focus group, and epidemiologic research; develops questionnaires; analyzes large data sets.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	521	Nutrition and Immunology	Critical review of current research on nutrient metabolism, immune function.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

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NTR	523	Vegetarian Nutrition	Health benefits, nutritional characteristics, potential risks of vegetarian diets.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	525	Complementary Nutrition	Critical review of functional foods, phytochemicals, nutrient supplements in health promotion.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	527	Energy Balance and Weight Management	Reviews energy regulation, eating disorders, obesity, weight control methodologies.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	529	Pediatric Nutrition	Critical review of pediatric disease states and current nutritional therapies.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	535	Nutrigenomics	Provides a sound foundation for promoting personalized nutrition by integrating and applying molecular nutrition and nutritional biochemistry to clinical settings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: BCH 361; BCH 367; NTR 440 or 441
NTR	537	Evidenced-Based Nutrition	Reviews current evidence of the role of diet on disease prevention, development, and management.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	540	Advanced Micronutrient Metabolism	Metabolism of vitamins and minerals, primarily as applied to humans, with research literature emphasized.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 440 or 540
NTR	541	Advanced Macronutrient Metabolism	Metabolism of protein, fat, and carbohydrate, primarily as applied to humans, with research literature emphasized.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 441 or 541
NTR	544	Therapeutic Nutrition	Current theories of the nutritional prevention or treatment of various diseases.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 444 or 544
NTR	545	Management of Institutional Food Service Systems	Standardizes methods of quantity food preparation, operation of institutional equipment, institutional menu planning, quantity food experiences. May require field trips. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	546	Assessment Techniques in Nutrition	Clinical and biochemical evaluation of nutritional status. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	548	Nutrition Program Development	Planning, development, implementation, and evaluation of community nutrition programs, including the process of grant applications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	550	Advanced Maternal and Child Nutrition	In-depth review of metabolic characteristics and nutritional needs of the pregnant woman, lactating woman, infant, and child.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Students who have credit for NTR 450, may not enroll in NTR 550
NTR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
NTR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
NUR	310	Nursing Concepts	Theoretical concepts related to health integrity focusing on the individual client across the life span. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Nursing undergraduate student; Co-requisites: NUR 311, NUR 394: Psychomotor Skills for Professional Nursing Practice and NUR 320 (or NUR 484: Introduction to Nursing Practice I)

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NUR	311	Pharmacology	Applications of pharmacologic interventions.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing student; Co-requisites: NUR 310, NUR 394: Psychomotor Skills for Professional Nursing Practice and NUR 320 (or NUR 484: Introduction to Nursing Practice I)
NUR	314	Health Assessment for Registered Nurses	Introductory knowledge and skills for systematic physical, psychosocial, and developmental nursing assessment over the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	315	Methods and Critical Appraisal for Evidence-Based Practice	Scientific and clinical inquiry, research methodology, and critical appraisal in the synthesis of research findings for application in evidence-based nursing practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: NUR 310, NUR 311, NUR 394: Psychomotor Skills for Prof Nursing Practice) and NUR 330 with C or better; NUR 320 (or NUR 484: Intro to Nursing Practice I) with Y
NUR	320	Nursing Practice	Integrates knowledge and attitudes from theory into the nursing care of adults in a variety of health care settings. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Enrollment in upper division nursing program; Co-requisites: NUR 310, NUR 311 and NUR 394: Psychomotor Skills for Professional Nursing Practice
NUR	323	Nursing Practice Adult Health	Applies nursing process with selected alterations in health with focus on adult populations in the acute care setting. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Enrollment in upper division nursing program; NUR 310, 311, 394:Psychomotor Skills for Prof Nurs Pract with C or better; NUR 320 (or 484: Intro to Nurs Pract I) with grade of Y; Co-requisites: NUR 313 or 394:Nursing Concepts Adult Health
NUR	330	Professional Nurse Attributes	Professional nursing roles and responsibilities.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: Upper Division Nursing Program students
NUR	342	Theory II: Health Integrity and Alterations	Concepts related to selected alterations in health integrity with focus on individuals, families, and groups. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate Nursing student, NUR 381 with C or better
NUR	364	Professional Development II: Nursing Research for RNs	Introduces concepts and issues in nursing research. Emphasizes quantitative and qualitative research processes, examination of nursing research literature.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: Undergraduate nursing student.
NUR	391	Registered Nurse Mobility I: Professional Development	Historical, philosophical, and theoretical bases for professional nursing practice. Enhancement of critical inquiry skills through exploration of selected issues.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: Must be in Nursing
NUR	392	Registered Nurse Mobility II: Health and Wellness	Concepts of health integrity and community-based practice and professional nursing roles.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be in Nursing
NUR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Upper Division Nursing Program students
NUR	413	Nursing for Complex Care	Advanced theoretical knowledge and interprofessional collaborative care required for the delivery of safe and competent care of the adult client experiencing acute and complex alterations in health. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Undergraduate nursing student; NUR 481 with C or better
NUR	423	Nursing Practice: Complex Care and Leadership and Management	Applies advanced psychomotor skills, leadership and management principles, and interprofessional collaboration for clients experiencing health alterations across the lifespan in multiple health settings. Fee.	N	LAB	N	P/F	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate nursing student.
NUR	430	Professional Nurse Attributes: Leadership and Management	Applications of theories and concepts of organizations, management, and leadership with focus on nursing management and leadership in healthcare organizations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Undergraduate nursing student.
NUR	431	Professional Nurse Attributes Innovative Professional	Focuses on the process of transition to the professional nursing role, and the gathering, interpretation, and evaluation of evidence that serves as a basis for improving client outcomes and professional satisfaction.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: Undergraduate nursing student; NUR 481 with C or better
NUR	440	Theory III: Health Integrity and Alterations for RNs	Concepts related to health integrity and alterations with focus on individuals, families, groups, aggregates, and communities.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	6.		Pre-requisites: Undergraduate nursing student; must have completed NUR 392 with a grade of C or greater.
NUR	441	Theory III: Health Integrity and Alterations	Concepts related to health integrity and alterations with focus on individuals, families, groups, aggregates, and communities. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	6.		Pre-requisites: Undergraduate nursing student.
NUR	444	Theory IV: Health Integrity and Alterations for RNs	Advanced concepts related to health integrity and alterations in that integrity, with focus on selected client populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NUR 315, NUR 391, TWC 361 with C or better
NUR	445	Theory V: Leadership and Management for RNs	Selected theories and concepts of organizations, management, leadership with focus on selected client populations for experienced RNs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be an undergraduate nursing student.
NUR	460	Professional Development III: the Art of Nursing for RNs	Explores the aesthetic, ethical, and personal patterns of knowing in nursing for the practicing RN.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: Must be an undergraduate nursing student.
NUR	461	Professional Development III: the Art of Nursing	Explores the aesthetic, ethical, and personal patterns of knowing in nursing.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: NUR 342 and NUR 362 with a C or better; NUR 382 with Y
NUR	464	Professional Development IV for RNs	Capstone professional development course for the RN student.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Must be an undergraduate nursing student.
NUR	481	Nursing Practice III	Lab, clinical experiences. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	7.		Pre-requisites: NUR 313 (394:Nurs Conc for Adult Health), 314 (394:Nurs Conc for Psych/Mental Health), 315, 323 (484:NP Adult Health), 324 (484:NP Psych/Mental Health); Co-requisites: NUR 411 or NUR 498: Nurs Conc for Childbearing & Pediatric Clients
NUR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Upper Division Nursing Program students
NUR	492	Honors Directed Study		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NUR	493	Honors Thesis		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
NUR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Upper Division Nursing Program students
NUR	495	Community Health/Home Health Practice for RNs	Theoretical content related to community and home healthcare. Clinical practice with individual, family aggregates.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		

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NUR	496	Leadership and Management Practice for RNs	Capstone leadership and management experience for the RN student that utilizes patterns of knowing in nursing practice. fee	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate nursing student.
NUR	497	Honors Colloquium		Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NUR	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		Pre-requisites: Upper Division Nursing Program students
NUR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
NUR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Graduate Nursing student; NUR 551 with B or better
NUR	503	Adult Acute: Advanced Theory I	Focuses on theoretical, research, and advanced assessment skills required for advanced practice across the acute care continuum.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 503 and 564 with a grade of B or better or be currently enrolled.
NUR	508	Advanced Nursing Practicum I: Adult Acute Nursing	Required practicum for preparation for advanced practice across the acute care continuum. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must co-enroll in NUR 503
NUR	513	Advanced Practice Nursing Role III	Third of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Graduate Nursing student; NUR 512 with B or better
NUR	521	Psychiatric/Mental Health Nursing: Advanced Mental Health Assessment	Theories related to holistic health assessment for the promotion of physical/psychological health; develops skill in mental health assessments.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing student
NUR	526	Advanced Neonatal Physical Assessment	Develops assessment skills related to neonate/infant, including history-taking, physical, developmental, behavioral, cultural, and genetics assessment to provide comprehensive advanced practice neonatal nursing care. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Nursing MS student or Non-degree seeking Graduate student; Co-requisite: NUR 525
NUR	527	Neonatal and Pediatric Pharmacology in Nursing Practice	Examines and discusses the rationale, action, and therapeutic effect for using each class of medications employed in neonatal and pediatric healthcare.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Be in:NUNURDTMS or NUPCNDTMS, or NUGRNONDGR; & completed NUR 525 w/ a grade of B or greater(or enrolled) or co-enrolled, & completed NUR 526 or NUR 558 w/a grade= B or greater or be enrolled in either, or co-enrolled
NUR	528	Advanced Developmental and Family-Centered Nursing Care	Provides the foundation for providing advanced nursing care of children that is developmentally supportive, family centered, and culturally competent. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites:Be in:NUNURDTMS or NUPCNDTMS, or NUGRNONDGR; & completed NUR 525 w/ a grade of B or greater(or enrolled) or co-enrolled, & completed NUR 526 or NUR 558 w/a grade= B or greater or be enrolled in either, or co-enrolled
NUR	538	Understanding & Applying Prin of Evidence-Based Care in Advanced Practice	Understanding how application of evidence-based practice principles assist advanced practice nurses and other healthcare professionals to provide best care.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	539	Generating Internal Evidence and Validating Application of Evidence through Outcomes Management	Assists advanced practice clinicians to provide best care through generating and validating application of evidence using outcomes management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	540	Teaching Evidence-Based Practice	Focuses on strategies that have been demonstrated as effective methods for teaching evidence-based practice in academic and clinical settings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
NUR	541	Application of Principles of Mentorship for Change toward Evidence-Based Practice	Assists advance practice nurses and other healthcare professionals to facilitate change toward evidence-based practice through mentorship.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	543	Disseminating Evidence to Advance Best Practice in Healthcare and Health Policy	Focuses on disseminating evidence to advance best practice with an emphasis on advancing EBP in health policy and the media.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	558	Advanced Pediatric Health Assessment	Expansion of basic health assessment skills and development of clinical problem-solving skills for advanced practice nurses. Includes assessments of infants, children, and adolescents. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS,or NUPCNDTMS,or NUGRNONDGR; & received a B or > in NUR 551,500,552,554., or co-enrolled.
NUR	559	Advanced Health Assessment	Expansion of basic health assessment skills and development of clinical problem-solving skills for advanced practice nurses. Includes assessments of infants, children, adolescents, and adults. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS,or NUPCNDTMS,or NUGRNONDGR; & received a B or > in NUR 551,500,552,554., or be currently enrolled, or co-enrolled.
NUR	578	Gestalt Therapy I	Introduces theory and methodology of Gestalt therapy and its uses for mental health promotion and restoration.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	579	Gestalt Therapy II	Focuses on further development of Gestalt therapy and its application in working with various client populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NUR 578 with B or better
NUR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing student
NUR	581	Advanced Nursing Practicum I: Community Health Nursing	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be in Nursing MS or Nursing (Comm Health Adv Prac) ; AND co-enrolled in CHP 501 and completed NUR 500 with a grade of B or greater.,
NUR	582	Advanced Human Physiology	Analyzes major theories and concepts of human physiology. Explores interrelationship of physiology and health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-3		Pre-requisites: MS Nursing, AHN or non-degree Nursing student; NUR 500, 552 and 554 with B or better

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NUR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Must be in Nursing MS or Nursing (Comm Health Adv Prac); NUR 500, 551, 552 and CHP 502 with B or better; NUR 581 or 587 with B or better; Co-requisite: NUR 510
NUR	587	Advanced Nursing Practicum II: Community Health Nursing	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing MS or Nursing (Comm Health Adv Prac); NUR 581 with B or better; Co-requisite: CHP 502
NUR	589	Research Utilization	Emphasizes the synthesis and application of research to an identified clinical nursing problem. Must be repeated for credit.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-2		
NUR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Nursing Graduate student
NUR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Nursing Graduate student
NUR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	601	Professional Role Development in Nursing and Healthcare Innovation	Explores professional identity in nursing education, health policy, and research and how one's identity can influence individual, family, and community engagement in healthcare.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing & Healthcare Innovation PhD student
NUR	603	Social and Contextual Issues in Nursing and Healthcare	Analyzes nursing practice and the healthcare system for an identified population using social-ecological approaches.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	604	Philosophy of Science Perspectives in Nursing and Healthcare Innovation	Analyzes the history and philosophy of science as a basis for knowledge and academic scholarship in nursing and healthcare innovation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	605	Theories Related to Nursing and Healthcare Innovation	Examines theoretical perspectives and approaches guiding research in nursing and healthcare innovation across the lifespan. Includes the historical evaluation, social contextual factors, implicit assumptions, and bias that influence nursing and healthcare innovation knowledge generation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	608	Qualitative Research Design and Methods	Explores and critiques selected qualitative research approaches. Includes fieldwork exercises as an integral part of course expectations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	609	Quantitative Research Design and Methods	Examines multiple research approaches in clinical and health policy research from a quantitative perspective.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	610	EBP: Critical Appraisal/Synthesis-Evidence	Knowledge and skills in critical appraisal and synthesis of evidence to guide best practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	611	Collaborative Inquiry	Seminar and immersion experience designed to foster student participation in multidisciplinary research teams to address nursing and health problems.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	612	Advanced Analysis of Variance: Design and Analysis of Experiment	Introduces theory, methods, and practice of analysis of variance.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	613	Principles of Regression and Correlation	Introduces theory, methods, and practice of regression analysis.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	614	Design and Implementation of Theory-Based Interventions	Focuses on the knowledge related to advanced methods for intervention research. Examines methodological, ethical, and practical issues in the design and implementation of theory-based intervention studies.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	670	Curriculum Development in Academic and Practice Settings	Includes analyses of historical, philosophical, societal, environmental, cultural, technological, and educational factors of curriculum development in academic and practice settings.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: MS Nursing (Nursing Education) or Graduate Certificate in Nursing Education; Pre/Co-requisite: NUR671 with B or better

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NUR	671	Teaching in Academic and Practice Settings	Analyzes theories, issues, and research related to teaching in nursing. Focuses on the process of teaching/learning.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program.
NUR	672	Design and Delivery of Mediated Instruction	Addresses instructional design issues, theory, and practices related to online and electronically mediated learning.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program; NUR 670
NUR	673	Producing and Evaluating Programs for Academic and Practice Settings	Critical examination of standards, regulatory environment, administrative systems, leadership requirements, technological infrastructure, human factors, future trends regarding mediated education planning, production, and evaluation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program; NUR 670
NUR	679	Biostatistics: Principles of Statistical Inference	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
NUR	681	Advanced Health Assessment of Older Adults Lab/Practicum	Skill-based course focused on advanced health assessment skills specific to older adults, including history-taking strategies, physical, functional, developmental, and psychosocial health assessment.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
NUR	686	Management of Common Health Problems in Geriatrics	Provides theoretical foundation for advanced geriatric healthcare focusing on the epidemiology of aging and the effects of senescence on cognition and organ systems. Emphasizes the core concepts of aging, including health management and end of life care. Uses theory building approaches for applying health management process and outcomes to clinical practice and policy.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	688	Management of Complex Diseases and Syndromes in Geriatric Population	Focuses on diagnosis and management of complex diseases and syndromes in the geriatric population.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	692	Research		N	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
OMT	343	Occupational Safety and Ergonomics	Health and safety movement, accident theories and effects, OSHA standards and liability, safeguarding, hazards, workers' compensation, ergonomics, and safety.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	344	Industrial Organization	Industrial organization concepts. Topics relate to industrial relations, governmental regulations, organizational structure, labor relations, human factors, and current industrial practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	345	Public Sector Management	Management in government and public agencies. Includes mission, planning and organizing to provide services, human resource issues, conflict resolution, coordination.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	401	Statistics for Industry	Two-part online statistics with applications for the practitioner in industry. Includes data description, measures of central tendency and variability, probability, tests of hypotheses, regression analysis and analysis of categorical data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:MAT 117 with a grade of D or better, or currently enrolled
OMT	402	Legal Issues for Technologists	American legal system and impact on technology management issues: contracts, torts, intellectual property, white collar crime, antitrust, environmental, and employment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Minimum Junior standing
OMT	405	Forecasting and Evolution of Technology	History and evolutionary nature of selected technologies, issues in the management of emerging technologies, and methods of technological forecasting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Minimum Junior standing
OMT	430	Ethical Issues in Technology	Topics in social responsibility for industrial technology and engineering.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:School of Technology or Coll of Engr & Appl Sci Non-Degree plan or School of Technology BAS, BS, or MS Tech plan
OMT	440	Introduction to International Business	International business principles and operations, including partnerships, trade agreements, currency issues, international sales, and cultural differences between countries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	Prerequisites:Must have received a D or greater in IST346 or MGT301 or OMT440 (or be currently enrolled in IST346 or MGT301 or OMT440) OR you must be in an Engineering & Appl Sci or Sch of Tech Plan: NDegr,BAS,MS,MSTech
OMT	445	Industrial Internship	Work experience assignment in industry commensurate with student's program. Specialized instruction by industry with university supervision. Pass/fail.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-10		Prerequisites: Minimum 2.25 GPA AND Minimum Junior standing AND Technology & Innovation BAS or BS student
OMT	451	Industrial Distribution and Materials Management	Surveys topics in industrial distribution, including, but not limited to, materials handling, purchasing, receiving, warehousing, traffic, inventory control, and shipping.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Engr & Appl Sci or Sch of Tech Plans: Non Degree or BAS or MS or MSTech OR must have received a C or greater in TMC346 OR received a D or greater in IST346 or MGT301 (or be currently enrolled in TMC346 or IST346 or MGT301

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OMT	452	Industrial Human Resource Management	Concepts and practices of human resource management in a global industrial environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Engr & Appl Sci or Sch of Tech Plans: Non Degree or BAS or MS or MS Tech
OMT	453	Safety Management	Development and management of safety programs, education and training, and relationships within an organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or greater in ITC343 or ITM343 or OMT343
OMT	455	Industrial Marketing Concepts	Customer and sales strategies for industrial organizations, including current practice and future planning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Academic Level must be equal to or greater than a Junior AND must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346, OR be in a Schl of Tech Grad Plan
OMT	456	Introduction to Organized Labor	Introduces labor relations, unions, federations, collective bargaining, grievances, and labor legislation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346
OMT	461	Operations Management	Introduces supervisory principles as applied to production of goods and services.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: IMC 346 or IST 346 or MGT 301 or (TMC 346 AND APM 301) or STP 420, OR Engr & Tech & Innov: Non Degree or BAS or MS or MS Tech
OMT	480	Organizational Effectiveness	Human aspects of supervisory behavior in the industrial setting and how they influence efficiency, morale, and organizational practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346
OMT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
OMT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisites: Minimum Junior standing; Minimum 2.25 GPA
OMT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		
OMT	502	Financial Management	Examines corporate financial and managerial accounting systems, budgeting, and financial policy, using microcomputers to analyze, forecast, and report information.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	503	Marketing Management	Modern methods and industrial case studies of planning, pricing, promoting, and distributing goods and services in the global marketplace.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	504	Law and Ethics for Technical Professionals	Analyzes legal and ethical framework for making managerial decisions in the corporate environment of engineering- and technology-related industries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	520	Strategic Management of Technology	Analyzes entrepreneurial dynamics and technology development, methods of research and development management, new technology implementation, and start-up organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	540	International Management	Practices and procedures for effective management of multinational business organizations, including partnerships, joint ownerships, and global subsidiaries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	548	Statistical Methods for Research	Multivariate statistical techniques to analyze research data. Uses statistical software and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	549	Research Techniques and Applications	Selection of research problems, analysis of literature, individual investigations, preparing reports, and proposal writing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	550	Industrial Training and Development	Training techniques and learning processes. Planning, developing, evaluating, and managing industrial and governmental programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	552	Global Management Philosophies	Analyzes and compares significant supervision philosophies developed in various industrial nations and their potential application in the United States.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	560	Managerial Decision Making	Analyzes common decision-making biases and techniques to overcome them. Uses both subjective quantitative decision tools and computerized decision aids.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	570	Advanced Project Management	Planning, organizing, coordinating, and controlling staff and project groups to accomplish the project objective.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: You may not enroll in OMT 570, if you have credit for TMC 470
OMT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
OMT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
OPM	301	Operations Management	Introduces the management of service and manufacturing conversion processes, with emphases on quality management and computer applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: Must be a Global Management student with conditional or professional status
OPM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
OPM	502	Management of Operations Technology	Design, control, and improvement of operations technology. Concepts and modeling tools required for strategic decisions in manufacturing and service operations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		
OPM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
PAF	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	300	Public Management and Administration	Examines the context and role of the public manager and the development of the field of public administration.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	340	Public Management and Policy	Develops conceptual, critical, and practical understanding of policy, the policy process, and policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	401	Statistics	Surveys statistical concepts and techniques with application to public administration. Does not count toward program of study. Satisfies statistics prerequisite requirement for PAF 501 and 502.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	410	Building Leadership Skills	Introduces understanding and developing leadership skills, including an examination of leadership theories and models from multidisciplinary and crosscultural points of view, an assessment of the student's leadership capabilities, and practical applications to improve individual leadership capabilities.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	SB	
PAF	411	Leadership and Change	The leader's role in bringing about significant organizational and societal change with special attention to group and organizational behavior dynamics, establishing a vision, mobilizing and empowering individuals and groups, and assessing outcomes of the change process in a variety of settings.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	SB	
PAF	420	Public Leadership	Examines key concepts, models, and strategies for leading public and nonprofit organizations, emphasizing self-knowledge, skills, and abilities for effective leadership.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	460	Public Service Ethics	Role, values, and issues of public management in democratic governance, citizen participation, power structures, and professional codes of conduct.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	492	Honors Directed Study		Y	LEC	Y	CNV	College of Public Programs	School of Public Affairs	1-3		
PAF	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Public Affairs	1-6	L	Pre-requisites: Must be an Honors student
PAF	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-3		
PAF	501	Public Service Research I	Philosophy, scope, and methods; public service research design, values, and ethics.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Must have earned B or better or currently enrolled in PAF 401, POS 401, PSY 230 QBA 221, or SOC 390 AND course must be completed within 4 previous terms
PAF	502	Public Service Research II	Quantitative techniques including multivariate analysis, data analysis, decision making, and computer applications in public affairs.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 501 with C or better
PAF	503	Public Affairs	Development and context of American public administration and policy, role of administration in governance, and values and ethics in administration.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	504	Public Affairs Economics	Basics of public sector economics, microeconomic and macroeconomic concepts applied to public sector decisions and policies.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	505	Public Policy Analysis	Institutional and formal analysis of policy processes, decision making, and problem solving; values, ethics, and the uses of policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 504 with C or better
PAF	506	Public Budgeting and Finance	Legal, social, economic, political, institutional, and ethical foundations of governmental finance, budgets, and budgeting.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 504 completed with C or better or currently enrolled

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PAF	507	Public Human Resource Management	Personnel systems, behavior and management of people in public organizations, collective behavior, unionism, conflict management, motivation, productivity, and ethics.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	508	Organization Behavior	Theory and application in the management of organizational behavior with emphasis on leadership and the public service.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	509	Public Affairs Capstone	Capstone application of core course knowledge, skills, and abilities required for public service.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: PAF 501, 502, 503, 504, 505, 506, 507 and 508 with C or better
PAF	520	Public Management	Management process in government and public agencies, with emphasis on the executive leadership within the public sector.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	522	Public Labor Relations	Rise of public unionism, managerial policy toward unionism, conflict resolution; impact of unionism on budgets, personnel policies, and public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	523	The City and County Manager	Manager's role and resources in the differing forms of administrative, legislative, and community sectors.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	525	Public Entrepreneurship	Explores entrepreneurship in the public sector from various angles, including small and large communities and nonprofits.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	529	Organization Change and Development	Explores the nature and management of change and development as a tool to achieve organizational goals; effecting planned change.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	530	Management of Urban Government	Administrative practices and behavior within the urban political administrative environment. Functional areas such as citizen participation, urban planning, urban transportation, and the conflicts between urban politics and administrative efficiency.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	531	Community Conflict Resolution	Interdisciplinary approach to understanding the dynamics of community conflict. Strategic considerations in policy design and advocacy; potential reaction to conflict. Relevant models and research findings generated by both case studies and comparative methods.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	534	Urban Infrastructure	Covers various types of infrastructure operated by local governments and the issues related to management of those various public assets.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	536	Urban Policy Making	Analyzes the opportunities and costs of influencing public policy and the roles of officials and bureaucracies in decision making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	540	Adv Policy Analysis	Emphasizes the structure of policy problems, forecasting policy alternatives, optimizing resources, and reducing uncertainty in policy making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 505 with C or better
PAF	541	Program Evaluation	Various methodologies available for the evaluation of public policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 501 with C or better
PAF	546	Environmental Policy and Management	Analyzes environmental policy and planning issues and principles related to the analysis and management of natural and urban/regional resources.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	547	Science, Technology and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Credit is allowed for only BIO 515, GLG 547, PAF 547 or SOS 516
PAF	548	Women/Politics/Public Policy	Explores how political philosophy, politics, and public policy affect and are affected by women.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	549	Diversity Issues and Public Policy	Examines public policy issues concerning or affecting women, black, Latino, Asian, and American Indian communities, as well as those groups' impact on the policy process.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	551	Computers in Administration	Experience in use of computer technology for public administration problem solving.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	562	Intergovernmental Relations	Evolution, growth, present status, and characteristics of the U.S. federal system of government. Federal-state relations, state-local relations, regionalism, councils of government, interstate cooperation, grants-in-aid, and revenue sharing.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	564	Political Economy	Classical and contemporary literature and historical development of governmental and economic arrangements, with special emphasis on the role of the state.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	570	Urban Economics and Public Finance	Examines microeconomics at the intermediate level, along with topics in urban microeconomics focusing on issues of urban finance and taxation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	571	Geographic Information Systems (GIS) and Analysis	Provides foundational information related to application of GIS technology to meet various needs within governmental operations, administration, and public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	572	Urban Demography	Focuses on basics of demographic analysis, including natality, migration, and mortality. Emphasizes use of demographic analysis for urban problem solving.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	573	Advanced Regression	Examines more advanced regression topics, such as limited dependent variable analysis, time-series analysis and forecasting techniques, and simultaneity.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 502 with C or better
PAF	574	Diversity, Ethics, and Leading Public Change	Focuses on leadership, ethics, and benefits and tensions of the multicultural city to develop leadership and multicultural competence.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	579	Public Policy Capstone	Integrative, client-based project course.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	L	

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PAF	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Public Affairs	1.		
PAF	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		Pre-requisite: Doctoral student
PAF	601	Seminar:Pol Analysis & Eval	Normative and conceptual issues of policy formulation, implementation, and evaluation; methods of policy analysis and evaluation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Must be enrolled in a PAF doctoral-level plan
PAF	602	Seminar: Foundations of Public Administration	Philosophy of science (including conduct of inquiry--epistemological and ontological foundations), historical development, and theoretical foundations of the field.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Doctoral PAF student
PAF	603	Seminar: Organization and Behavior in the Public Sector	Structure, organization, conduct, and performance of public sector institutions in the administration of public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Doctoral student
PAF	604	Foundations of Public Administration II	Philosophy of science (including research design issues and alternative approaches) and contemporary public administration, including political, social, technological, and economic institutions involved in governance, exposure to research being conducted within department.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: Doctoral PAF student; PAF 602
PAF	610	Advanced Qualitative Methods for Public Affairs Research	Explores a number of qualitative research approaches and methods, including ethnography, ethnomethodology, participant observation, interviews, focus groups, content analysis, discourse analysis, and some comparative/historical methods. Also exploreS the important theoretical and ethical issues that bear on these approaches.	N	SEM	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: PhD student
PAF	620	Public Administration Professional Development Workshop	Prepares doctoral students to become productive and effective public administration scholars, teachers, and researchers.	N	SEM	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: Doctoral PAF student
PAF	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-15		
PAF	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Public Affairs	1.		
PAF	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Public Affairs	1-15		
PE	123	Tumbling		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of Kinesiology	0.5		
PGM	100	PGA/PGM Introduction	Introduces the golf professional training program. Career enhancement, rules of golf, tournament operations, and playing professional development programs. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	110	Player Development I	Introductory instruction on golf game improvement to assist PGM students in preparation for Players Ability Test. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student

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PGM	111	Player Development II	Instruction to assist PGM students in preparation for Players Ability Test with emphasis on full swing mechanics and practice plan development. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	112	Player Development III	Emphasizes classroom and hands-on applications of full swing analysis and short game strategies. Special focus on golf course management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	113	Player Development IV	Emphasizes classroom and hands-on applications of full swing analysis and short game strategies. Special focus on golf course management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	114	Player Development V	Introductory instruction on golf game improvement to assist PGM students in preparation for Player Ability Test.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	120	Golf for Business and Life	Introduces nongolfing students to the game of golf. For beginners.	N	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	130	PGA/PGM Level 1	Focuses on golf professional training program and the completion of the PGA Level One experience kit. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	150	Teaching Golf I	Introduces golf instruction. Focus on fundamentals of golf swing and teaching techniques. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	166	Turf Equipment Management	Introduces turf equipment used on golf courses. Instruction in maintenance, adjustment, and safety issues.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
PGM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGM	200	PGA/PGM Level 2	Focuses on golf professional training program and the completion of the PGA Level Two experience kit. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	250	Teaching Golf II	Communicating with student golfers, swing evaluation, key factors club fitting, developing a successful teaching practice.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGM	300	PGA/PGM Level 3	Business planning and operations, business communications related to business of golf. Completion of the PGA Level Three experience kit. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	350	Teaching Golf III	Teaching swing concepts. Developing a teaching philosophy, analyzing flawed swing mechanics through video and swing analysis software.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	363	Landscape and Turf Irrigation	Design, management, and maintenance of landscape and turf irrigation systems. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	4.		
PGM	367	Landscape Plants and Design	Identification, design, and use of plants in urban landscapes. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	4.		
PGM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGM	400	GPTP IV	Food and beverage control, supervision and delegation of golf facilities. Completion of the PGA Level Three experience kit.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1.		
PGM	463	Golf and Sports Turf Management	Selection, establishment, and maintenance of turf grasses bred specifically for golf and sports facilities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	3.		
PGM	466	Integrated Pest Control	Management of pests affecting golf turf and landscape plants. Structural Pest Control Board sprayer certification preparation offered during the semester.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	2.		
PGM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-12		
PGM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Management and Agribusiness	1-4		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	222	Human Sexual Behavior	Patterns of sexual behavior, including variations and deviations; theories of sexual attraction, sex differences, and sexual dysfunction and treatment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	304	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L or SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	430	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned earned C or better or currently enrolled in MGT 301 or earned C or better or currently enrolled in PGS 101
PGS	452	Applied Social Psychology	Studies applications of social psychological theory and concepts in natural settings; research design and data analysis. Lecture, lab-type activities.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	Pre-requisites: PGS 350 or 351 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	453	Organizational Behavior	Surveys psychological theory and research as applied to the behavior of individuals in organizational settings.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisite: Must have earned C or better or currently enrolled in PGS 350
PGS	458	Group Dynamics	Theories and methods of group leadership, group effectiveness, communication within groups, and relations between groups and individual members.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PGS	471	Psychological Testing	Methods and theory of psychological testing; various types of psychological tests; consideration of ethical, social, and legal aspects of testing.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	
PGS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
PGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PGS	222	Human Sexual Behavior	Patterns of sexual behavior, including variations and deviations; theories of sexual attraction, sex differences, and sexual dysfunction and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	244	Introduction to Directed Child Study	Developmental theories and methods of social interaction with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PGS	270	Psychology of Adjustment	Principles of mental health, adjustment, conflict, stress, and coping processes derived from clinical and experimental research. Intended for nonmajors; cannot be used for major credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	
PGS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PGS	304	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed one of the following courses with a grade of C or greater or be currently enrolled: JUS 302, MAT 119, MAT 210, MAT 242, MAT 243, MAT 270, MAT 271, POS 401, PSY 230, QBA 221, SOC 390, SOC 395 or STP 226
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	344	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: CDE 232, ECD 314 or PGS 341 with C or better or currently enrolled; PSY 290 with C or better or currently enrolled
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PGS 101 with a grade of C or greater or be currently enrolled
PGS	351	Honors Social Psychology	Critical analysis of human social behavior for honors students; topics include stereotyping, social influence, attraction, aggression, helping, groups, and attitudes. Open only to students without previous credit for PGS 350.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	
PGS	365	Community Psychology	Mental health and psychological well-being in the community, emphasizing current issues and related research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 315 (or 350 or 351) with C or better; PSY 290 with C or better
PGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	399	Supervised Research	Experience within the context of current faculty research projects. Student is assigned responsibility depending on qualifications. Y grade only. May be repeated for a total of 6 hours.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		
PGS	414	History of Psychology	Historical development of psychology from its philosophical beginnings to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: PSY 290 with C or better
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed PGS 341 with a grade of C or greater or be currently enrolled
PGS	430	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with a C or better or currently enrolled
PGS	441	Cognitive Development	Experimental and theoretical literature in child development and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed PGS 341 with a grade of C or greater within the past 16 terms (4 years) or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	443	Abnormal Child Psychology	Covers the major disorders of childhood and adolescence (e.g., autism, hyperactivity, phobias, and delinquency), including cause, diagnosis, treatment, and prevention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed one of the following: PGS 315, 341, 350 or 351 with a grade of C or greater or be currently enrolled; Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	444	Adolescent Psychology and Psychopathology	Advanced-level survey of normal adolescent psychological development and psychological disorders of this age period.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 341 with C or better; PSY 290 with C or better
PGS	445	Child Language and Drawing	Language acquisition and developmental changes in drawing, considered in the context of cognitive developmental stages. Children's representation and communication of knowledge through language and drawing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PGS 341 with a grade of C or greater within the past 16 terms (4 years) or be currently enrolled
PGS	446	Social Development	Discusses theory, research, and issues regarding social development. Topics may include formation of attachments, prosocial development, and gender-role development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PGS 341 with a grade of C or greater or be currently enrolled
PGS	451	Stereotyping, Prejudice, and Discrimination	Critical investigation of the processes underlying, and the factors contributing to, stereotyping, prejudice, and discrimination.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 350 (or 351) with C or better; PSY 290 with C or better
PGS	452	Applied Social Psychology	Studies applications of social psychological theory and concepts in natural settings; research design and data analysis. Lecture, lab-type activities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 350 or 351 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	458	Group Dynamics	Theories and methods of group leadership, group effectiveness, communication within groups, and relations between groups and individual members.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PGS 350 or 351 with a grade of C or greater within the past 16 terms (4 years) or be currently enrolled
PGS	461	Interpersonal Influence	Principles and procedures that affect the process of social influence; consideration of attitudinal, compliance-inducing, and perceptual influences.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PSY 290 with C or better; PGS 350 or 351 with C or better
PGS	462	Health Psychology	Contributions of psychology to health promotion and illness prevention, adaptation to acute and chronic illness, and to the healthcare system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	464	Minority Issues in Psychology	Psychological issues relating to the diversity of human cultural experiences among ethnic minorities in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	465	Psychology of Stress and Coping	Readings in theory and research in the area of stress and coping. Lecture, discussion, class presentations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 315, 350 or 351 with C or better; PSY 290 with C or better
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed MUE 381 or PSY 290 with a grade of C or greater or be currently enrolled
PGS	467	Psychology of Magical Beliefs	Psychological nature and bases of magical beliefs and their impact on health behaviors, eating practices, and interpersonal relations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PGS 315, PGS 466 or PSY 290 with a grade of C or greater or be currently enrolled
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	471	Psychological Testing	Methods and theory of psychological testing; various types of psychological tests; consideration of ethical, social, and legal aspects of testing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	472	Clinical Psychology	Clinical psychology as a science and profession. Historical development, methods of interviewing, assessment, and therapeutic intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 443 or 466 with C or better
PGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: PSY 290 with C or better
PGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-7		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-3		
PGS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PGS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		Pre-requisites: Must be a Graduate student, either degree seeking or non degree seeking
PGS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: Must be a Graduate student, either degree seeking or non degree seeking

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	250	Psychology and Society	Addresses how social and behavioral science theory and research are used to understand behavior related to various social issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	304-W	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: PSY 230 with a C or better or currently enrolled; ENG 102 ,105 or 108 with a C or better or currently enrolled; MAT 119 with a D or better or currently enrolled
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with a C or better or currently enrolled
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	344	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	344-W	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled; PGS 101 and PGS 341 with a C or better or currently enrolled
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with a C or better or currently enrolled
PGS	370	Interpersonal Relationships	Development of personal skills for competent functioning in interpersonal relationships across multiple social contexts. Principles of mental health adjustment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	385	Psychology of Gender	Examines, from a psychological perspective, the similarities and differences in beliefs, attitudes, and behaviors of women and men.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
PGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	399	Supervised Research	Experience within the context of current faculty research projects. Student is assigned responsibility depending on qualifications. Y grade only. May be repeated for a total of 6 hours.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-or Co-requisites: PSY 230 (with a C or better if completed)
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	
PGS	427-W	Psychology of Aging	Behavioral, experiential, and emotional phenomena associated with aging. Analysis of retained abilities and resources as well as losses and stresses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	430-W	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 350 with a C or better or currently enrolled or MGT 301 with a D or better or currently enrolled
PGS	443-W	Abnormal Child Psychology	Covers the major disorders of childhood and adolescence (e.g., autism, hyperactivity, phobias, and delinquency), including cause, diagnosis, treatment, and prevention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	Pre-requisites: PGS 315, 341 or 350 with C or better or currently enrolled; PSY 230 and PSY 290 with a C or better or currently enrolled; ENG 102, 105 or 108 with a C or better or currently enrolled
PGS	444-W	Adolescent Psychology and Psychopathology	Advanced-level survey of normal adolescent psychological development and psychological disorders of this age period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PGS 341, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	446-W	Social Development	Discusses theory, research, and issues regarding social development. Topics may include formation of attachments, prosocial development, and gender-role development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 341, PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	453	Organizational Behavior	Surveys psychological theory and research as applied to the behavior of individuals in organizational settings.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 and PGS 350 with a C or better or currently enrolled
PGS	462	Health Psychology	Contributions of psychology to health promotion and illness prevention, adaptation to acute and chronic illness, and to the healthcare system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 230 and PSY 290 with a C or better or currently enrolled
PGS	465-W	Psychology of Stress and Coping	Readings in theory and research in the area of stress and coping. Lecture, discussion, class presentations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites:PSY 230 and PGS 290 with a C or better or currently enrolled; PGS 315 or PGS 350 with a C or better or currently enrolled
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 and PSY 230 completed with a C or better; PSY 290 with a C or better or currently enrolled
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with a C or better or currently enrolled
PGS	472-W	Clinical Psychology	Clinical psychology as a science and profession. Historical development, methods of interviewing, assessment, and therapeutic intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 466 with a C or better or currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	473	Psychology and Politics of Child Maltreatment	Examines psychological literature on child maltreatment in the context of development. Explores interactions between professionals responding to maltreatment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with C or better; PGS 341 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	480	Cross-Cultural Social Psychology	Focuses on patterns of social behavior in individualistic and collectivistic cultures. Includes multidisciplinary research using qualitative and quantitative methodologies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: PGS 101 with C or better; PGS 350 with a C or better
PGS	482	Social Influence and Consumer Behavior	Discusses social influence principles, emphasizing strategies employed by professionals that affect consumer behavior. Analyzes consumer defenses against manipulations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 350 with C or better
PGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
PGS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
PGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
PGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-requisites: PGS 399 with a C or better or currently enrolled
PGS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
PGV	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHI	120	Introduction to Medical and Bioethics	Philosophical examination of moral problems that arise in medicine and biology, e.g., end-of-life, reproduction, and patient's rights.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	300	Philosophical Argument and Exposition	Develops techniques of philosophical argument and exposition. Frequent written exercises. Course content may vary with instructor.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L	
PHI	301	History of Ancient Philosophy	History of Western philosophy from its beginnings through the Hellenistic period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
PHI	302	History of Modern Philosophy	History of Western philosophy from the Renaissance through Kant.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
PHI	304	Existentialism	Covers such topics as absurdity, authenticity, the meaning of life and death, responsibility, and subjectivity. May include readings in phenomenology.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	305	Ethical Theory	Current theories about the nature of morality (metaethics) and about what is right and wrong (normative ethics).	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	307	Philosophy of Law	Nature and source of law and its relation to morality. Legal rights, legal enforcement of morals, civil disobedience, liability and responsibility, punishment, judicial reasoning, justice, property, and differences between theories of natural and positive law.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	308	Philosophy of Art	Central problems in philosophy of art, e.g., the nature of a work of art, modern and traditional theories of art, aesthetic perception and experience, and objectivity and relativity in art criticism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	309	Social and Political Philosophy	Alternative principles and methods relevant to problems of human association and conflict; discusses justice and power, freedom and equality, and autonomy and order.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	310	Environmental Ethics	Examines a full range of philosophical positions pertaining to our moral relationship to the natural world; anthropocentrism, individualism, biocentrism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	311	Philosophy in Literature	Selected works of literature introducing philosophical problems such as the nature of moral goodness and people's relation to the world and other people.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	312	Theory of Knowledge	Nature, sources, and limits of human knowledge. Topics may include truth, a priori knowledge, empirical knowledge, perception, induction, and skepticism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	Credit is allowed for only HPS 314 or PHI 314.
PHI	315	Philosophy of Language	Problems pertaining to the nature of language, including meaning, reference, truth, definition, analyticity, translatability, synonymy, and contributions of contemporary linguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	316	Metaphysics	Problems pertaining to the nature of reality. Topics may include nature of person, minds, substance, universals, space, time, causation, and modality.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	317	Philosophy of Mind	Nature of consciousness. Common sense view of mind, behaviorism, materialism, dualism, functionalism, self-knowledge, and knowledge of other minds.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	318	Philosophy of Religion	Classical arguments for the existence of God. Argument from evil against the existence of God. Justification of religious belief.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	319	Philosophy of Computing	Philosophical problems surrounding the theory of computation. Turing machines, mind and AI, neural network computing, ethics, and epistemology of computing.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	CS	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHI	320	Bioethics	Critical examination of moral questions arising in biomedical contexts, particularly due to new technologies and scientific discoveries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	325	Philosophy of Social Science	Philosophical problems surrounding the aims, structure, and methods of the social sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU or SB	
PHI	333	Introduction to Symbolic Logic	Symbolic techniques, emphasizing deductions and proofs in the propositional and 1st-order predicate calculi.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	335	History of Ethics	Major works of moral philosophy, both ancient and modern, such as those by Plato, Aristotle, Hobbes, Hume, Kant, and Mill.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	390	Jewish Philosophy	The history of Jewish philosophy from its origins in the Hebrew Scriptures to postmodern expressions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102 (or 105, or 108) with a grade of C or better. Students who have credit for PHI 390 may not enroll in REL 314
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	401	Rationalism	Examines classical philosophical rationalism, as in Descartes, Spinoza, Malebranche, or Leibniz. Contemporary rationalist thought may also be examined.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	402	Empiricism	Examines representatives of either classical or contemporary philosophical empiricism, e.g., Bacon, Hobbes, Locke, Butler, Berkeley, Reid, Hume, Mill, Carnap, and Ayer.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	403	Contemporary Analytic Philosophy	Aims and methods of such 20th-century philosophers as Frege, Moore, Russell, Wittgenstein, Carnap, Ayer, Wisdom, Ryle, Austin, Strawson, Quine, and Sellars, with application to metaphysics and epistemology.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	413	Advanced Symbolic Logic	Properties of formal systems axiomatizing propositional and 1st-order predicate logic. May also include modal logic, number theory, and limits of logicism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	420	Topics in Philosophy	Course descriptions on file in department. May be repeated for credit.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	428	Immunophilosophy	Integrates immunology and philosophy, including psychoneuroimmunology and the mind-body problem, and immunologic/psychologic perspectives on self and self-identity.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: MIC 420, PHI 317, HPS314, or PHI 314 with a C or better. Students who have credit for MIC 428, may not enroll in PHI 428
PHI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		Pre-requisites: Must be an Honors student
PHI	493	Honors Thesis		N	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6	L	Pre-requisites: Must be an Honors student
PHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	497	Honors Colloquium		Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		
PHI	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-7		
PHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHI	501	Foundations of Ethics I	Studies primary texts of classic ethical theories and their applications to various issues in daily life and the professions. Ethical traditions include some of these frameworks: virtue ethics and natural law ethics, consequentialism and contractualism, deontology and critical communitarianism. Pays attention to the shifting nature of the relation between ethics and religion. In the applied, activity-portion of the course, students investigate real-life ethical issues and examine them from several normative perspectives.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	550	Ethical and Spiritual Issues in Pastoral Care	Recalling the ancient Socratic, biblical, and other spiritual traditions of the cura animarum (care for and cure of the soul) and joining contemporary post/secular conversations relevant to the integration of the body-mind-spirit, this course introduces basic concepts and practices of the pastoral care ethics and spirituality. Focuses on the irreducible relations among existential (ontological), therapeutic (psychosomatic), and spiritual (religious) dimensions of care. The theoretical part of the course is inter-faith in approach, holistic in scope, and specialized in content; in the applied, activity-portion of the seminar, students investigate real-life issues in care ethics and spirituality and examine them from several perspectives studied during the semester.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: AEP 501 and AEP 502 with a D or better; students who have credit for PHI 550 or REL 585, may not enroll in AEP 550
PHI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisites: Masters or Doctoral Philosophy student.
PHI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		
PHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		
PHI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 101, 105 or 107 with C or better
PHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	306-W	Applied Ethics	Uses philosophical techniques to elucidate such vital moral issues as sexual perversion, civil disobedience, abortion, punishment, violence and pacifism, suicide, and euthanasia.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	318	Philosophy of Religion	Classical arguments for the existence of God. Argument from evil against the existence of God. Justification of religious belief.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	324	Existential Ethics	Ethical aspects of theistic and atheistic accounts of existentialist philosophy. Freedom and responsibility and their significance in human experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	340	Bioethics	Philosophical exploration of ethical issues in healthcare delivery and the life sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	360	Business and Professional Ethics	Examines moral theories applied to cases of corporate responsibility, property rights, environment, fairness, profit, employee rights, and responsibilities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	406	Moral Dilemmas	Philosophical analysis of moral dilemmas arising in professional and public settings. Ethical decision making in business, educational, human service, and scientific communities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: Must have completed ENG 101, or 105 with a grade of C or greater, or be currently enrolled in ENG 101, or 105
PHI	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
PHI	408	Feminist Ethics	Philosophical exploration of the theoretical and practical aspects of ethical issues affecting women from diverse feminist viewpoints.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	409	Eco-Community Ethics	Traces human interaction with the Earth from hunters and gatherers to the present day, examining groups who have lived within ecological constraints and limits.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	120	Introduction to Medical and Bioethics	Philosophical examination of moral problems that arise in medicine and biology, e.g., end-of-life, reproduction, and patient's rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHI	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Credit is allowed for only HPS 314 or PHI 314.
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PHI	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
PHL	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PHL	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHS	110	Fundamentals of Physical Science	One-semester survey of the principles of physics and chemistry. Presumes understanding of elementary algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHS	208	Patterns in Nature	Project-oriented science course with computer training to develop critical thinking and technical skills for student-oriented K-12 science lessons. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in physical science and physics. Requires weekly reflective reading and writing. May be repeated for credit. Fee.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	3.	C	
PHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6	L	Pre-requisites: Must be an Honors student
PHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-7		
PHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-3		
PHS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	505	Energy and the Environment	Current problems in energy resources, production, consumption, and conservation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	530	Methods of Physics Teaching I	Inquiry approach to high school physics teaching.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	531	Methods of Physics Teaching II	Extension of modeling techniques introduced in PHY 580.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	534	Methods of Teaching Physical Science I, II, III	Design of curriculum and conduct of instruction for physical science courses.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	540	Integrated Physics and Chemistry	Collaborative inquiry methods for teaching and coordinating physics and chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	542	Integrated Mathematics and Physics	Mathematical models and modeling as an integrating theme for secondary mathematics and physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	550	Physics and Astronomy	Astronomy curricula and projects for secondary school, with emphasis on the role of physics in astronomy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHS	556	Astrophysics	Structure and evolution of stars, galaxies, and the universe. For secondary school teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	560	Matter and Light	Interactions of light with matter. Lasers and spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	564	Light and Electron Optics	Principles and practice of electron-optical instruments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	570	Spacetime Physics	Special and general theories of relativity with implications for space and time travel.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	581	Structure of Matter and its Properties	Models of matter and its properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-15		
PHS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-15		
PHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	Pre-requisites: PHY 111 with D or better or currently enrolled
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre- or Co-requisite: PHY 111 (with D or better if completed)
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre- or Co-requisite: PHY 112 (with D or better if completed)
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	122	University Physics Laboratory I	Lab accompanying PHY 121. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	132	University Physics Laboratory II	Lab accompanying PHY 131. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit. fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
PHY	321	Vector Mechanics and Vibration	Vector-based formulation of Newtonian mechanics of particles and rigid bodies, including oscillatory systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
PHY	331	Principles of Modern Electromagnetism	Studies the unified description of electromagnetic phenomena provided by Maxwell's equations in differential and integral form.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHY	105	Basic Physics	One-semester survey of the principles of physics. Primarily for students who intend to take PHY 121, 131 but have not taken high school physics.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: PHY 111 with D or better or currently enrolled
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre- or Co-requisite: PHY 111 (with D or better if completed)
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre- or Co-requisite: PHY 112 (with D or better if completed)
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: MAT 265, MAT 270 or MAT 290 with D or better or currently enrolled
PHY	122	University Physics Laboratory I	Lab accompanying PHY 121. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre- or Co-requisite: PHY 121 (with D or better if completed)
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: MAT 271 or MAT 291 with D or better or currently enrolled ; PHY 121 with D or better or currently enrolled; Co-requisite: MAT 272
PHY	132	University Physics Laboratory II	Lab accompanying PHY 131. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit. fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre or Co-requisite: PHY 131 (with D or better if completed)
PHY	150	Physics I	Introductory physics for majors. Kinematics, Newton's Laws, basic forces, energy, momentum, special relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 270 or MAT 290 with C or better
PHY	151	Physics II	Continuation of PHY 150. Electromagnetic fields; Ampere's and Faraday's Laws; Maxwell's equations; basic circuit elements. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 271 or MAT 266 with C or better; PHY 150 or PHY 121 and PHY 122 with C or better

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PHY	190	Seminar: Physics as a Curriculum and a Profession	Seminar for new Physics majors. Instruction and information on curriculum, departmental functions, and professional preparation. Weekly meetings and excursions. Pass/fail grading.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of Physics	1.		
PHY	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	201	Mathematical Methods in Physics I	Differential equations, linear equations, vectors, matrices, Fourier series, and numerical methods. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	CS	Pre-requisites: MAT 272 or MAT 267 with C or better; PHY 151 (or PHY 131 and PHY 132) with C or better
PHY	241	University Physics III	Thermodynamics, kinetic theory, physical and wave optics, relativity, photons, matter waves, atomic physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 131
PHY	252	Physics III	Continuation of PHY 151. Wave physics, oscillations, harmonic systems, physical optics, thermodynamics, kinetic theory. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 272 or MAT 267 with C or better; PHY 151 (or PHY131 and PHY132) with C or better
PHY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHY	302	Mathematical Methods in Physics II	Continuation of PHY 201. Vector calculus, complex variables, partial differential equations, special functions, numerical methods. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY201 with C or better
PHY	310	Classical Particles, Fields, and Matter I	Particle kinematics, mechanics, conservation laws, particle motion in force fields, dynamics of two-body systems, reference frames, rigid body motion, relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 201 with C or better; PHY 252 with C or better. Co-requisite: PHY 302
PHY	311	Classical Particles, Fields, and Matter II	Electrostatic and gravitational fields, Poisson and Laplace equations, dielectric materials, magnetic fields and materials, magnetic induction, Faraday's Law. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 302 with C or better; PHY 310 with C or better
PHY	314	Quantum Physics I	Photons, models of the atom, wave properties of matter, introduction to wave mechanics, 1-D systems in quantum mechanics. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Prerequisites: PHY 201 with C or better; PHY 252 with C or better
PHY	315	Quantum Physics II	General principles of quantum mechanics, 3-D problems, approximation methods, spin, introduction to many-particle systems. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 302 with C or better; PHY 314 with C or better
PHY	321	Vector Mechanics and Vibration	Vector-based formulation of Newtonian mechanics of particles and rigid bodies, including oscillatory systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	331	Principles of Modern Electromagnetism	Studies the unified description of electromagnetic phenomena provided by Maxwell's equations in differential and integral form.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	333	Electronic Circuits and Measurements	Basic principles of electronic circuit analysis and measurement techniques using modern instrumentation and computer-aided analysis of data. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Prerequisites: MAT 272 or MAT 267 with C or better; PHY 151 or PHY 131 and PHY132 with C or better
PHY	334	Advanced Laboratory I	Selected experiments from contemporary physics. Emphasizes modern instrumentation, computer-assisted acquisition and analysis of data, and report form writing. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		Pre-requisites: MAT 272 or MAT 267 with C or better; PHY 151 or PHY 131 and PHY 132 with C or better
PHY	361	Introductory Modern Physics	Special relativity and introductory quantum theory with applications drawn from atomic, nuclear, and solid-state physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	412	Classical Particles, Fields, and Matter III	Electromagnetic fields of moving charges, Maxwell's equations, harmonic phenomena, oscillations, waves, electromagnetic radiation, covariant electromagnetism, introduction to general relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisite: PHY 311 with C or better
PHY	416	Quantum Physics III	Introduces the quantum theory of atoms, molecules, solids and nuclei, Dirac's equation. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisite: PHY 315 with C or better
PHY	420	Research Paper	Scientific report writing. Culminates in a paper based on library or lab research or both. Taken in conjunction with other courses as approved.	N	RSC	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	L	
PHY	441	Statistical and Thermal Physics	Statistical and experimental basis of heat, temperature, and entropy. Mechanical and statistical basis of the laws of thermodynamics. Applies macroscopic thermodynamics. Phase equilibrium.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311 with C or better; PHY 315 with C or better
PHY	452	Physical Optics	Principles of reflection, refraction, diffraction. Additional topics from contemporary optics may include Fourier transform spectroscopy, linear systems theory, holography.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 302 with C or better; PHY 311 with C or better
PHY	462	Subatomic Physics	Nuclear properties, models, decays and reactions; fundamental forces, field theories, symmetry principles; hadrons, quarks, and leptons; the Standard Model.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311 with C or better; PHY 315 with C or better
PHY	465	Advanced Laboratory II	Continuation of PHY 334. Students may substitute a short laboratory research project for one of the elective experiments of the course, in consultation with a faculty sponsor and the course instructor. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 334 with C or better
PHY	466	Advanced Laboratory III	Continuation of PHY 465. fee	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisite: PHY 465 with C or better
PHY	480	Methods of Teaching Physics	Evaluates various approaches to the teaching of high school physics. Preparation of demonstrations and experiments. Organization of a lab. Designed for secondary school physics teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

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PHY	481	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 481 or 511.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311 with C or better; PHY 315 with C or better
PHY	482	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 482 or 512.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 481 with C or better. Students who have credit for PHY 512, or MSE 527, or NAN 512, may not enroll in PHY 482
PHY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6		Pre-requisites: Must be an Honors student
PHY	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6	L	Pre-requisites: Must be an Honors student
PHY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	495	Project Research	Supervised project in physics or astrophysics. May be repeated for credit.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		
PHY	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-7		
PHY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-3		
PHY	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	501	Methods of Computational and Theoretical Physics	Analytic and computational approaches to problems in classical and quantum physics. Topics may include numerical analysis, molecular dynamics, Monte Carlo simulations, density functional theory, high performance computing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	502	Methods of Theoretical Physics	Continuation of PHY 501.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	511	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 511 or 481.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	512	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	521	Classical and Continuum Mechanics	Variational principles, Lagrange's and Hamilton's equations, canonical transformations, Hamilton-Jacobi theory, introduction to chaos and nonlinear dynamics, fundamentals of elasticity theory and fluid mechanics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	523	Relativity	Special and general theories of relativity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	531	Electrodynamics	Special theory of relativity, covariant formulation of electromagnetic interactions, Maxwell's equations, electrostatics and magnetostatics, dielectric media, inhomogeneous wave equations, Lienard-Wiechert potentials, interactions of charged particles and electromagnetic waves, scattering and diffraction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	532	Advanced Topics in Electrodynamics	Electromagnetism of dielectric media, magnetic media, and superconductors; introduction to magnetohydrodynamics, laser physics, and nonlinear optics; additional special topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	541	Statistical Physics	Postulates of statistical mechanics, equilibrium ensembles, Bose and Fermi statistics, density matrix, modern theory of phase transitions, fluctuations, and linear response theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	542	Topics in Biophysics	Overview of modern biology, length scales: emphasizes molecular and cellular biology. Nonequilibrium systems: compare and contrast stochastic processes in biological and physical systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	551	X-Ray and Electron Diffraction	Fresnel and Fraunhofer diffraction in integral formulation; diffraction of x rays and neutrons by crystal lattices; structures of solids, including crystal structure analysis; theory and techniques of electron microscopy/diffraction of crystalline/noncrystalline specimens.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		If you have credit for MSE 552, or NAN 552, or SEM 552, you may not enroll in PHY 552
PHY	553	Electron Microscopy Laboratory I	Lab support for PHY 552.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.		Pre-requisites:If you have credit for MSE 553, you may not enroll for PHY 553. Must co-enroll in MSE 552 or PHY 552
PHY	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent beam diffraction, and electron holography.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	555	Electron Microscopy Laboratory II	Lab support for PHY 554.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	561	Nuclear Physics	Properties of nuclei, conservation laws, internucleon forces, nuclear structure models, reactions and decays, quark model with applications to nuclei.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	562	Nuclear Physics	Continuation of PHY 561.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	567	Relativistic Quantum Mechanics and Field Theory	Relativistic quantum mechanics and introduction to the quantum field theory of scalar, spinor, and electromagnetic fields. QED through renormalization theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	568	Particle Physics Phenomenology	Hadron physics, internal symmetry groups, weak interactions, lepton and quark phenomenology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	569	The Standard Model and Beyond	Introduces and applies the standard model of strong and electroweak interactions. Special topics include recent developments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	571	Quantum Physics	Review modern physics, chemistry, math. Differential equation, operator, matrix formulations. Free particle, bound state problems. Examples from physics, chemistry and nanoscience.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only NAN 571 or PHY 571
PHY	576	Quantum Theory	Operator methods in quantum mechanics, time-independent perturbation theory, variational methods, angular momentum and group representation theory, identical particles; quantum dynamics, including time-ordered operators, time-dependent perturbation theory, and Fermi's golden rule.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	577	Advanced Quantum Theory	Scattering in three dimensions, second quantization of bosons and fermions, quantization of electromagnetism, addition of angular momenta, electronic structure of atoms and molecules, introduction to relativistic quantum mechanics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	581	Quantum Theory of Solids I	Band structure models: pseudopotentials, density functional theory; optical and magnetic response; elementary excitations; transport theory, electron-photon interactions and superconductivity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	582	Quantum Theory of Solids II	Continuation of PHY 581: broken symmetry; phase transitions; disorder, topological defects; nano-structures topics; soft condensed matter and current research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	587	Quantum Optics	Quantization of the electromagnetic field. Quantum theory of coherence, photon counting, photon states, lasers, density operators, and atomic Raman scattering.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	588	Quantum Optics	Continuation of PHY 587.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-15		
PHY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-15		
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	Pre-requisites: must have completed PHY 111 with a grade of C or greater, or be currently enrolled in PHY 111
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre-requisites: Must be co-enrolled in PHY 111
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre-requisites: must have taken PHY 112 with a C or greater, or be currently enrolled; or be co-enrolled in PHY 112
PHY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	SQ	
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	SQ	
PLA	161	Graphic Communication	Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be Pre-Landscape Architecture student
PLA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
PLA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		

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PLA	222	Computers in Landscape Architecture	Computer applications in landscape architecture including CAD, GIS, graphics, and visualization.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	CS	
PLA	240	Landscape Survey Techniques	Develops landscape survey skills including aerial photography, satellite images, geo-referencing, landscape surveys, and field data collection.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	261	Landscape Architecture I	Landscape communication: communication techniques for urban planning and landscape architecture. Credit is allowed only for PLA 261 or PUP 261.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		
PLA	262	Landscape Architecture II	Reading the landscape: observing, experiencing, and graphically expressing the symbolic and aesthetic significance of natural landscapes.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		
PLA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	344	Landscape Construction II	Characteristics of materials and methods used in landscape architectural construction. Studio.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	345	Professional Practice Seminar	Landscape architecture practice including contracts, project and office management, liability, licensing, and professional development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	412	Landscape Ecology and Planning	Reviews the evolution of landscape ecology and landscape planning and examines use and value.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	413	Southwest Landscape Interpretation	Explores methods and implications of landscape interpretation within the American Southwest.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	420	Theory of Urban Design	Analyzes the visual and cultural aspects of urban design. Theories and techniques applied to selected study models.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
PLA	446	Landscape Construction III	Landscape construction focusing on low-technology, biotechnical, regional, and experimental techniques or systems. Lecture, studio.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	462	Landscape Arch VI	Advanced landscape architecture: integrative capstone studio with multifaceted design problems. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		Pre-requisites: Must be Landscape Architecture BSLA student; Must have completed PLA 461 with a grade of C or greater or be currently enrolled
PLA	485	International Field Studies in Planning	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	N	FLD	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12	G	
PLA	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
PLA	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
PLA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
PLA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
PLA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

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PLA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLB	414	Plant Pathology	Identification and control of biotic and abiotic factors that cause common disease problems to plants.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	L	
PLB	108	Concepts in Plant Biology	Introduces concepts of plant biology that are of human relevance using commercially important, edible, and medicinal plants as examples. Not for majors in the biological sciences. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
PLB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	200	Biology of Plants	Analyzes the structure/function interaction for plant cells and tissues and properties that emerge in whole plants. Both PLB 200 and PLB 201 must be taken together to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SQ	
PLB	201	Biology of Plants Laboratory	Lab/field experiments to teach techniques and protocols of the scientific process; reinforces concepts from lecture by asking questions and solving problems. Both PLB 200 and PLB 201 must be taken together to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	SQ	
PLB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	300	Comparative Plant Diversity	Surveys major plant groups and other photosynthetic organisms. Emphasizes comparative data analysis, evolutionary inference, and phylogenetic methods. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L or SG	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	302	Plants and Civilization	Plants and plant products used by people throughout the world. Cultivation, processing, and uses in modern life (beverages, fibers, foods, medicinals, and perfumes).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	304	Biology of Algae and Fungi	Ecology, economics, and evolutionary diversity of the algae and fungi. Traditional and modern biotechnological uses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	305	Desert Annuals, Cacti, and Succulents	Adaptive biology of desert annuals, cacti, and succulents, analyzing diverse traits that permit survival in deserts: reproduction, structure, and physiology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	306	Plant Anatomy	Development and mature structure of tissues of vascular plants; patterns and modifications of the leaf, stem, root, and flower.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	308	Plant Physiology	Concepts of plant function: carbon metabolism, energy acquisition, regulation of growth and development, stress responses, and water and nutrient uptake.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	310	The Flora of Arizona	Overview of Arizona's flora and plant communities; emphasizes identification, classification, and natural history of the state's native vascular species. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	320	Environmental Science (Nonmajor)	Environmental and biological concepts used to understand ecological systems with specific references to problems caused by humans. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	G	
PLB	322	Environmental Science (Major)	Nature of environmental and biological interaction: historical and modern examples, regional and global issues. Participation in environmental problem-solving activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	350	Applied Genetics	Introduces molecular genetics with emphasis on application of genetics to solve biological questions and to engineer organisms for biotechnology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MBB 247 or BIO 340 with C or better; Credit is allowed for only MBB 350 or PLB 350
PLB	400	Lichenology	Chemistry, ecology, physiology, and taxonomy of lichens.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	401	Mycology	Fungal morphology and systematics with an introduction to fungal cell biology, ecology, economic significance, and growth and development.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in plant biology; requires weekly reflective reading and writing. Fee.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	404	Phycology	Algae (both fresh water and marine forms), emphasizing field collection and identification of local representatives. Morphological, ecological, and economic aspects of the algae. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	407	Plant Fossils and Evolution	Broad survey of plant life of the past, including the structure of plant fossils, their geologic ranges, geographic distribution, and paleoenvironment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	410	Angiosperm Taxonomy	Principles underlying angiosperm phylogeny.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: PLB 310 with C or better
PLB	411	Trees and Shrubs of Arizona	Identification of woody plants from desert, chaparral, and forest habitats in Arizona. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	414	Plant Pathology	Identification and control of biotic and abiotic factors that cause common disease problems to plants.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	416	Medical Botany	Explores plants affecting human health: modern- and folk-usage medicinal plants. Quality control, clinical evidence, plant chemistry, and ethnopharmacology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLB	420	Plant Ecology: Organisms and Populations	Factors and controls on the physiological ecology and organization of plants and plant populations using empirical and theoretical approaches. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with C or better
PLB	421	Plant Ecology: Communities and Ecosystems	Plant community organization, field sampling techniques, and the structure and function of terrestrial ecosystems emphasizing the role of vegetation. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with C or better
PLB	422	Plant Geography	Plant communities of the world and their interpretation, emphasizing North American plant associations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: GPH 111 or BIO 187 (or both PLB 200 and PLB 201) with C or better; Students who have credit in GPH 422, may not enroll in PLB 422
PLB	430	Statistical Analyses in Environmental Science	ANOVAS, 1-way classification of factorial and partially hierarchic designs; introductory multivariate statistics. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better
PLB	432	Computer Applications in Biology	Computer analysis techniques in biology emphasizing data entry, management and analysis, and graphic portrayal. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: C or better in: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
PLB	434	Landscape Ecological Analysis and Modeling	Technical methods of landscape ecological analyses. Includes mathematical and statistical examination and modeling of landscape ecological patterns and processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with C or better
PLB	440	Photobiology	Principles underlying the effects of light on growth, development, and behavior of plants, animals, and microorganisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better; Students who have credit in BIO 464, may not enroll in PLB 440
PLB	444	Plant Growth and Development	Molecular basis of development, role of signal transduction pathways/gene regulation in control of organ formation, pollination, germination, and growth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 353 with C or better
PLB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	492	Honors Directed Study		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors Student
PLB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
PLB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
PLB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
PLB	502	Perspectives in Plant Biology	Introduces major areas of research within the department with the goal of broadening knowledge to enable multidisciplinary research and communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	525	Microclimate Methods	Techniques to measure and quantify microclimate and mass transfer. Supporting principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	530	Introduction to Structural and Molecular Biology	Structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	540	Plant Biochemistry	Structure/function relationships of molecules, emphasizing processes unique to plants: carbon fixation, synthesis of storage products, pigments, and secondary metabolites.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	550	Plant Molecular Biology	Biochemistry and molecular biology of plant organelles, including protein targeting, plant viruses, and molecular designs for plant improvements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
PLB	552	Plant Genetic Engineering	Plant transformation, utilization of transgenic plants, transient gene expression assays, and applications of plant genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	553	Plant Genetic Engineering Laboratory	Plant transformation, utilization of transgenic plants, transient gene expression assays, and applications of plant genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
PLB	554	Plant Biotechnology	Aseptic, clonal propagation of plants and in vitro culture of cells, organs, and tissues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	558	Molecular Mechanisms of Photosynthesis	Structure and function of photosynthetic complexes; mechanism of energy conversion in plants, bacteria, and model systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
PLB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
PLB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
PLB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
PLC	101	Elementary Polish	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
PLC	102	Elementary Polish	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: PLC 101 with D or better or currently enrolled
PLC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
PLC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	201	Intermediate Polish	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
PLC	202	Intermediate Polish	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: PLC 201 with D
PLC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	11-12		
PLC	492	Honors Directed Study		N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
PLC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
PLC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
POL	101	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POL 110 or 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	160	Global Politics	The nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas. Credit is allowed for only POL 160 or 360.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Students may not enroll in POS 160 if they have received a D or better in POL 160, POS 360, or POL 360.
POL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POL	247	Introduction to Latin American Politics	General introduction to the politics and socioeconomic structures of Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
POL	310	American National Government: Ideas and Institutions	Historical, analytic context of constitutionalism and citizenship vis-à-vis social, economic, and political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POL 310 or 110.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	Students may not sign up for POL 310, if they have received a D or better in POL 110, or POS 110
POL	313	The Congress	The modern American Congress: its role, power and interrelationship in the American political system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	314	The American Presidency	Office, role, and power of the American presidency in the American political system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	320	Latino Politics	Examines contemporary political issues in the diverse Latino community.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
POL	331	Public Opinion	Examines U.S. public opinion, the diversity of its cultural sources, and political influence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	336	Electoral Behavior	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	340	Political Theory	Surveys ancient, modern, and contemporary political theorists and ideas in European and American contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU or SB	
POL	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	360	World Politics Theory	Theoretical examination of one or more aspects of international politics, e.g., foreign policy, negotiations, alliances, crises, wars, and international systems. Credit is allowed for only POL 360 or 160.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Credit is allowed for only POL 360, POS 160 or POL 160.
POL	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POL	417	The Arizona Political System	Contemporary political problems within the context of Arizona's political, social, and constitutional frameworks. Meets the Arizona Constitution requirement for teacher certification.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POL	430	Race and Politics in the Americas	Studies racial politics in North, Central, and South America with a focus on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	434	Media and Politics	Studies mass media and politics in the United States, e.g., media and elections, media and government.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	435	Women, Power, and Politics	The roles and treatment of women within various political contexts. Specific focus may vary with instructor.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
POL	436	Gender, Sexuality, Nation-States	Issues and problems related to the interface of gender, sexualities, nationalisms, and states in various world contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	440	Political Futures through Science Fiction	Examines the relationship between politics and science fiction literature and film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or HU	
POL	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	446	Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POL	447-W	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
POL	453	Latin American Cities	Urban studies of Latin American world cities, e.g., Mexico City, Santiago, emphasizing integration with U.S. cities, including Los Angeles, Phoenix.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	454	Mexico: Politics, Economy, Cultures	Politics, economy, and cultures in Mexico in historical and contemporary perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	460	Politics of Globalization	Theories and analysis of the politics of economic and technological globalization in the contemporary world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	464	Border Cities: Action Research on Globalization	Examines the effects of globalization on U.S.-Mexico border cities and towns with particular emphasis on Mexican border cities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	470	Law and the Political Order	Investigates concepts of justice, political rights, adjudication and legislation, legal ordering, constitutional law, law as an instrument of change.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POL	480	Global Justice	Explores questions of justice that cross national borders, including delivery of foreign aid, immigration, and military intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
POL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	486	Global Political Economy	Contending approaches to historical and contemporary issues of international political economy, including global welfare, equality, ecology, and peace.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POL	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
POL	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
POL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
POL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POR	101	Elementary Portuguese	Basic grammar with intensive drills in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
POR	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	201	Intermediate Portuguese	Continuation of POR 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:POR 101 with a grade of C or better or currently enrolled
POR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	313	Portuguese Composition and Conversation	Develops skill in written Portuguese and corrected oral expression. Must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: POR 201 with C or better
POR	314	Portuguese Composition and Conversation	Continuation of POR 313.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: POR 313 with C or better
POR	321	Luso-Brazilian Literature	Representative masterpieces of Portuguese and Brazilian literature from the beginning to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: POR 313 with C or better
POR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	472	Luso-Brazilian Civilization	Lectures, readings, and discussion of important aspects of Luso-Brazilian civilization. Topics from music, art, folklore, literature, history, and politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites: POR 313 with C or better
POR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
POR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
POR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
POR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
POR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	101	Elementary Portuguese	Basic grammar with intensive drills in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.		
POR	201	Intermediate Portuguese	Continuation of POR 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
POS	434	Media and Politics	Studies mass media and politics in the United States, e.g., media and elections, media and government.	N	LEC	N	OPT	Liberal Arts and Sciences	INACTIVE Department of Political Science	3.	SB	
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	Students may not sign up for POS 110 who have received a D or better in POS 310
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		Pre-requisites: Freshman status; Maximum 25 hours
POS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		Pre-requisites: Maximum 25 hours
POS	210	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	220	Political Issues and Public Policy	Contemporary social problems and political issues, particularly development of public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	230	Current Issues in National Politics	Major issues facing national governments in the domestic field.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	L or SB	
POS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(HU or SB) & G	
POS	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(L or SB) & G	
POS	270	American Legal System	Concepts, institutions, classifications, and functions of law. Role of the courts and impact of judicial decision making on social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	300	Contemporary Global Controversies	Explores key controversies in global politics including security, economic stability, poverty, gender, race, and the environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	301	Empirical Political Inquiry	Logic of political inquiry, including research problems, concepts, hypotheses, theories, measurement, data collection, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	305	Politics and Film	Examines portrayal of political events, ethnic groups, and sociopolitical situations in film, a major medium addressing questions of human values. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110
POS	311	Arizona Constitution and Government	Constitution and government of the State of Arizona. Credit is allowed for only POS 311 or 316 or 417. Meets the Arizona constitution requirement for teacher certification. May not be counted for the major or a teaching major or minor in Political Science	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	2.		
POS	313	The Congress	Lawmaking process in the U.S. Congress.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	314	The American Presidency	Office, role, and power of the American presidency in the American political system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	315	The Supreme Court	Role of the Supreme Court in American society and politics; examines decision-making process and impact of decisions; restraint versus activism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	316	State and Local Government	Surveys the operations, problems, and policies of state and local governments in the United States. Credit is allowed for only POS 316 or 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	320	Public Administration	Role of the administrator in the political process with an examination of the basic concepts of bureaucracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	325	Public Policy Development	Examines one or more aspects of public policy development including agenda setting and policy formulation, implementation, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	330	Contemporary Controversies in Domestic Politics	Explores key controversies in domestic politics including the environment, the economy, poverty, gender, race, and security.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	331	Public Opinion	Formation, expression, and influence of individual and organized opinion on political institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	332	American Political Parties	Development of the American party system. Party organization and functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	333	Interest Groups	Examines how minority, corporate, labor, farm, consumer, environmental, health, education and public interest groups, and single-issue movements influence government.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	336	Voters in America	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	340	History of Political Philosophy I	Western political philosophers and their theories to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H	
POS	341	History of Political Philosophy II	Western political philosophers and their theories from the 17th to the 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H	
POS	346	Problems of Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	351	Democratization	Examines the consolidation of democracies in postauthoritarian and postcommunist settings (e.g., Latin America, Eastern Europe, Asia).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	355	Russia and Successor States	Description and analysis of political institutions and practices in Russia and successor states.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	356	European Union	History and workings of EU member states, including single market, Euro, legal system, ethnonationalism, immigration, expansion, trade wars, and defense.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	357	South Asia Politics	Political culture and systems of South Asia examined through study of political writings, novels, and poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	358	Southeast Asia	Political background, governmental institutions, political dynamics, and developmental problems of Southeast Asian nations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	359	African Politics and Society	Comparative analysis of socioeconomic forces, political processes, government institutions, and political novels in Sub-Saharan Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	360	World Politics	Theory and practice of statecraft as applied to selected issues, regions, or eras. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	364	National Security, Intelligence, and Terrorism	Theoretical and empirical assessment of U.S. national security policy in the post-cold war era.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	368	Ethics and Human Rights	Explores issues of ethics, morality, and human rights in the global community.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	369	War, Politics, and Society	Relationships between techniques/technology of war and political/social structures in different time periods and locations. Who commands, dies, and pays?	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	370	Law and Society	Analyzes debates among social scientists and legal theorists concerning the relationship between law and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	401	Political Statistics	Basic concepts in statistics as they facilitate the description, explanation, and prediction of social and political phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	CS	Pre-requisite: POS 301

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	410	Governing American Cities	Reviews modern urban problems, their sources, and potential solutions, including structural and policy alternatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	417	Arizona Political System	Contemporary political problems within the context of Arizona's constitutional, political, and social frameworks. Meets the Arizona Constitution requirement for teacher certification. Credit is allowed for only POS 417 or 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	426	Elements of Public Policy	Each section may cover one of the following topics: consumer protection, natural resources, criminal justice, environmental protection, science and technology, or theories of public policy. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	431	Campaigns and Elections	Examines campaigns from a multitude of perspectives including the politician, reporter, campaign strategist, and voter.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	435	Women and Politics	Focuses on the uniqueness of women in modern political systems and political thought. Emphasis may vary with instructor.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & C	
POS	439	Minority Group Politics in America	Role of minority groups in American politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & C	
POS	442	American Political Thought	Political theories and movements from the colonial period to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	443	Topics in Contemporary Political Theory	Major problems and theories in contemporary political thought.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	445	Asian Political Thought	Contemporary political ideas and theories in selected Asian countries, including the impact of Marxist and non-Marxist theories on revolutionary processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	451	China, Japan, and the Koreas	Comparative analysis of the political modernization experiences of China, Japan, and the two Koreas, focusing on their differing reactions to the West.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	452	China	Background of the Communist revolution, political processes, and developmental problems in China from a comparative perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	453	South America	Political institutions, process, and developmental problems of South American states examined through comparative analysis, novels, and poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	454	Mexico	Mexican federal, state, and local governmental institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	455	Central America and the Caribbean	Governmental institutions, political processes, and developmental problems of the nation-states and dependent areas of Central America and the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	459	South and Southern Africa	Post-apartheid South African government and politics; South Africa and the southern African region; regional security and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	463	Inter-American Relations	Diplomatic relations among the Latin American states. Development of U.S. foreign policy toward Latin America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	465	International Organization and Law	History, practical political significance, and future of international institutions, transnational regimes, and international law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	467	International Security	Examines issues affecting the international security of states and peoples, e.g., military, economic, technological, environmental, and demographic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	468	Comparative Asian foreign Policies	Foreign policies of the Asian states, emphasizing their security relations and movements toward regionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	471	Constitutional Law I	Development of the U.S. Constitution as reflected in decisions of the Supreme Court; jurisdiction and organization of the federal courts; judicial review; separation of powers; federalism; the commerce clause; national taxing and spending power; state police power.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	472	Constitutional Law II	Development of the U.S. Constitution as reflected in decisions of the Supreme Court; due process; equal protection of laws; individual rights; civil liberties.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	

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POS	473	Religion, Violence, and Conflict Resolution	Focuses on the ambiguous, often confounding role of religion in local and global conflict and the pursuit of peace.	N	LEC	N	GRD	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only REL 482, JUS 473 or POS 473
POS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	485	Political Economy	Problems, policies, and possibilities of various political-economic systems and the interrelationship of capitalism, socialism, and democracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	486	International Political Economy	Contending approaches to historical and contemporary issues of international political economy, including global welfare, equality, ecology, and peace.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
POS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6	L	Pre-requisites: Must be an Honors student
POS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
POS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-7	L	
POS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
POS	501	Methods of Political Science	Problems of method and knowledge in political science, strategies of political inquiry, and issues in philosophy of social science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Political Science student
POS	502	Philosophy of Political Inquiry	Problems of knowledge and method in political science, with attention to both empirical and evaluative analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	2-3		
POS	503	Empirical Political Inquiry	Research methods and techniques of the discipline, emphasizing empirical foundations and analytic methods employed in subfields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Political Science student
POS	530	American Politics	Examines major debates in the study of American political processes and institutions. Covers parties, media, elections, public opinion, interest groups, and the three branches of government.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	545	Themes in Political Thought	Examines a particular theme or problem in political thought from both a historical and contemporary perspective. May be repeated with approval of the director of graduate studies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	550	Comparative Politics	Surveys major approaches across topical areas such as revolutions, authoritarianism, policy processes, interest groups, and electoral politics. Focus varies with instructor.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	560	International Relations	Surveys major theoretical approaches and debates in international relations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	563	Comparative Asian Security Policies	Analyzes domestic and international constraints, belief systems, and economic components in security decisions by major powers and Asian nations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	601	Advanced Experimental Research	Introduces experimental and quasi-experimental research designs in political research, including lab techniques and topics in the analysis of variance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	602	Advanced Survey Research	Presents design and conduct of political surveys, including sampling, instrument design, scaling, and statistical and graphical analysis of survey data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	603	Polimetrics I	Introduces theory and practice of linear regression analysis. Provides skills to read, understand, and evaluate professional literature using regression analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	604	Polimetrics II	Applies quantitative techniques to research topics producing publishable papers through exposure to time-series, logit and probit, and simultaneous equations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	606	Qualitative and Textual Analysis	Method and theory for the analysis of qualitative materials, systematic approaches for case studies, content analysis, critical analysis of texts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	635	State Politics and Public Policy	Introduces comparative state policy emphasizing policy or performance differences among the states and the reasons for these differences.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	636	Electoral Behavior	Introduces fundamental concepts of electoral behavior. Emphasizes presidential elections and examines why people vote and how their votes are determined.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	638	Law and Politics	Emphasizes research into such topics as constitutional law, women and the law, American legal system, judicial process, and judicial selection.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	651	Politics of Change and Development	Examines contending approaches to national, social, and political change.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	660	The Modern World System	Theoretically driven, historical analysis of the organization and operation of the international political economy since the 16th century.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	661	The State	Examines theories of state, state-society relations, and interstate politics emphasizing questions of sovereignty, territoriality, violence, representation, democracy, and change.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	662	International Organization	History, practical political significance, and future of international institutions, transnational regimes, and other approaches to international organization.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	664	War, Peace, and Conflict Processes	Systematic analysis of the causes of war, the preconditions for peace, and approaches to the resolution of conflict.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	665	foreign Policy Theory	Examines foreign policy theory and methods. Development and critique of research designs analyzing foreign policy processes within and among nations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-15		
POS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-15		
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	340	History of Political Philosophy I	Western political philosophers and their theories to the 17th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU & H	
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Students may not sign up for POS 110 who have received a D or better in POS 310
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Students may not sign up for POS 110 who have received a D or better in POS 310
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	210	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	220	Political Issues and Public Policy	Contemporary social problems and political issues, particularly development of public policy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	230	Current Issues in National Politics	Major issues facing national governments in the domestic field.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
POS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
POS	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & G	
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110
POS	325	Public Policy Development	Examines one or more aspects of public policy development including agenda setting and policy formulation, implementation, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	336	Voters in America	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	346	Problems of Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
POS	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	351	Democratization	Examines the consolidation of democracies in postauthoritarian and postcommunist settings (e.g., Latin America, Eastern Europe, Asia).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	360	World Politics	Theory and practice of statecraft as applied to selected issues, regions, or eras. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	364	National Security, Intelligence, and Terrorism	Theoretical and empirical assessment of U.S. national security policy in the post-cold war era.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
POS	417	Arizona Political System	Contemporary political problems within the context of Arizona's constitutional, political, and social frameworks. Meets the Arizona Constitution requirement for teacher certification. Credit is allowed for only POS 417 or 311.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	485	Political Economy	Problems, policies, and possibilities of various political-economic systems and the interrelationship of capitalism, socialism, and democracy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PPE	550	Physical Education for the Elementary School	Scope and values of physical education in elementary schools. Methods, materials, and practices in teaching for primary through upper grades. Credit is allowed for only PPE 550 or 350. fee	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	555	Physical Education in the Secondary School	Current trends and theories such as elective programs, coed classes, legal issues, contract teaching, curriculum, and administration. Credit is allowed for only PPE 555 or 355. fee	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	560	Adapted and Inclusive Physical Education	Teaching individuals with disabilities physical skills and activities. Credit is allowed for only PPE 560 or 360.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	565	Teaching Physical Activity Concepts	Teaching physical activity concepts in PE settings. Analyzes and critiques state and national physical education standards. Credit is allowed for only PPE 565 or 365.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	570	Research on Teacher Education in Physical Education	Discusses current research on teacher education across fields, with an emphasis on physical education pedagogy. Credit is allowed for only PPE 570 or 370.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	575	Coaching Methods for Youth Sports	Scope and values of coaching K-12. Methods, materials, and practice in coaching philosophy. Best practices and activities for grades K-12. Credit is allowed for only PPE 575 or 375.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	576	Research on Curriculum in Physical Education	Discusses and applies research findings on curricular models for physical education and physical activity in school settings and beyond.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites:Completed COE 501 with a grade of D or better or be currently enrolled
PPE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	585	Research on Teaching in Physical Education	Contemporary research and theory on teaching across fields, with an emphasis on physical education pedagogy; provides a practical research experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
PPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	593	Applied Project		Y	LEC	Y	CNV	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
PPE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
PPE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
PPE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		
PPE	210	Teaching Fitness Activities for K-12 Students	Practical application of biomechanical, physiological, psychological, and learning principles in the analysis of skill acquisition and performance. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	215	Teaching Team Sports	Practical application of biomechanical, physiological, psychological, and learning principles in the analysis of skill acquisition and performance. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	220	Teaching Lifetime Activity K-12	Participating in and teaching sequenced activities K-12.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	225	Teaching Cooperative and Initiative Games	Participating in and teaching sequenced adventure-based activities.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
PPE	350	Physical Education for the Elementary School	Scope and values of physical in elementary schools. Methods, materials, and practices in teaching for primary through upper grades. Credit is allowed for only PPE 350 or 550. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Students who have credit for PPE 550, may not enroll in PPE 350
PPE	355	Physical Education in the Secondary School	Current trends and theories such as elective programs, coed classes, legal issues, contract teaching, curriculum, and administration. Credit is allowed for only PPE 355 or 555. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	360	Adapted and Inclusive Physical Education	Teaching individuals with disabilities physical skills and activities. Credit is allowed for only PPE 360 or 560.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

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PPE	365	Teaching Physical Activity Concepts	Teaching physical activity concepts in PE settings. Analyzes and critiques state and national physical education standards.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
PPE	370	Research on Teacher Education in Physical Education	Discusses current research on teacher education across fields, with an emphasis on physical education pedagogy. Credit is allowed for only PPE 370 or 570.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
PPE	375	Coaching Methods for Youth Sports	Scope and values of coaching K-12. Methods, materials, and practice in coaching philosophy. Best practices and activities for grades K-12. Credit is allowed for only PPE 375 or 575.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	474	Field Experience in Physical Education	Analyzes course content in an elementary/secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction and assessment. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
PPE	480	Professional Seminar for Physical Education	Methods of instruction, organization, and presentation of appropriate content in elementary and secondary physical education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
PPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
PPE	495	Research on Teaching in Physical Education	Contemporary research and theory on teaching across fields with an emphasis on physical education pedagogy; provides a practical research experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PRM	120	Leisure and the Quality of Life	Conceptual foundations for understanding the role of leisure in the quality of life. Social, historical, psychological, cultural, economic, and political foundations of play, recreation, and leisure.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
PRM	150	Outdoor Pursuits	Theories and practical applications related to outdoor recreation pursuits. Interdisciplinary approach to wilderness issues and philosophies, culminating in an outdoor experience.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
PRM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	210	Community Services and Professions.	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Prerequisite: Parks and Recreation Management or Recreation (management concentration) student; Pre- or corequisite: PRM 120 or REC 120 with a C or better if completed
PRM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: REC 120 (or PRM 120) with a C or better if completed
PRM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre- or Co-requisite: PRM 120 or REC 120 with a C or better if completed
PRM	303	Program Planning	Foundations for effective program planning in varied leisure delivery systems.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: NLM 160 or PRM 120 with C or better
PRM	304	Recreation Planning and Facility Development	Surveys development and management of public, private, and commercial recreation areas and facilities with a focus on meeting program needs.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Parks & Rec Mgmt, Rec & Tourism or Nonprofit Leadership & Mgmt student; Minimum 2.50 cumulative gpa; minimum 45 hours; MAT 142 or higher; PRM 210 (or NLM 210, TDM 210 or REC 210) with C or better; ENG 102 with C or better
PRM	315	Community Recreation Systems	Explores and assesses community recreation delivery systems in the United States.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM120 (REC120) with C or better
PRM	340	Outdoor Survival	Interdisciplinary approach to outdoor survival, including attitudes, psychological stress, physiological stress, preparation, hypothermia, navigation, flora, and wildlife.	N	FLD	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	364	Foundations of Therapeutic Recreation	Overview of therapeutic recreation and its concepts, practices, service models, and settings. Explores the provision of recreation and treatment services for individuals with disabilities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
PRM	368	Sports Management	Introduces concepts of sports management in varied leisure delivery systems.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

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PRM	370	Natural Resource Recreation Planning and Management	Introduces outdoor recreation resource delivery systems; history of wilderness and outdoor recreation resources; the role of outdoor recreation in society; outdoor recreation agencies; related environmental issues.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisite: Must have completed 45 or more earned hours
PRM	380	Wilderness and Parks in America	Examines the American Conservation Movement and the relationships between the environment and recreation behavior.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB & H	
PRM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	400	Processes and Techniques in Therapeutic Recreation	In-depth analysis of theoretical and philosophical approaches to therapeutic recreation practice with emphasis on various facilitation techniques used in therapy.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have completed PRM364 or REC364 with a grade of C or greater or be currently enrolled
PRM	401	Management of Parks and Recreation Services	Basic principles of administration and their application in successful administrative situations. Analyzes administrative function, structure, and policies.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM or REC student; must have at least 2.5 ASU cumulative GPA; 45 or more semester hours; ENG 102 and PRM 210 (or REC 210) with C or better or currently enrolled; MAT 142 or higher with D or better or currently enrolled
PRM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: PRM 304 or PRM 401 (or REC 462 or REC 440) with a C or better if completed
PRM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre- or Co-requisite: PRM 304 or PRM 401 (or REC 462 or REC 440) with a C or better if completed
PRM	406	Program Design and Evaluation in Therapeutic Recreation	In-depth analysis of assessment, treatment planning, program implementation, documentation, and evaluation strategies employed in therapeutic recreation practice.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-or Co-requisites: PRM 364 (or REC 364) and PRM 400 (or REC 400) with C or better if completed
PRM	424	Recreation Program Management	Provides nonmajors with an in-depth look at recreation program management in a variety of settings with diverse groups.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: NLM 160 or PRM 120 (REC 120) with C or better or currently enrolled; Not open to Parks & Recreation Management, Recreation (Management concentration) or Nonprofit Leadership & Management majors.
PRM	451	Grant Writing for Human Service Professionals	How to increase grant funding: creating fundable ideas, identifying sponsors, following guidelines, writing effectively, constructing budgets, responding to reviewers.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	460	Assessment and Documentation in Therapeutic Recreation	In-depth study of the therapeutic recreation assessment process, including examination of interview techniques, assessment instruments, treatment planning, outcomes, evaluation, research, and documentation.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 364 (REC 364) and PRM 400 (REC 400) with C or better or currently enrolled
PRM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Pre-requisites: Parks and Recreation or Recreation (Management concentration) student; PRM 402 (REC 482) and PRM 403 (REC 499 Pre Internship Workshop) with C or better
PRM	470	Environmental Interpretation and Education	Introduces park interpretation and environmental education that includes theories, principles, and techniques.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 380 with C or better
PRM	475	Entrepreneurial Recreation and Tourism	Explores basic business principles and innovative processes involved in starting a small business in the commercial recreation and tourism industry.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or REC 120 with C or better
PRM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
PRM	486	Special Events Management	Principles of programming and managing special events for diverse populations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
PRM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PRM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	CS	Pre-requisites: PGS 101 with a grade of C or greater; Must have completed one of the following with a grade of C or greater or in progress: MAT 119, 170, 242, 243, 251, 260, 261, 262, 270, 271, 272, 274, 290 or 291
PSY	290	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	4.	L or SG	Pre-requisite: Must have earned C or better or be currently enrolled in either JUS 302, POS 401, PSY 230, QBA 221, SOC 395, or STP 226
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	325	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	CS	
PSY	360	Cognitive Science	Examines cognition from the varied perspectives of philosophy, linguistics, psychology, computer science (artificial intelligence), and neuroscience.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	390	Experimental Psychology	Continuation of concepts in PSY 290, with emphasis on multifactor designs and programmatic sequence of experiments.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	Pre-requisite- Mus have earned C or better in PSY 290 or currently enrolled
PSY	399	Supervised Research		Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-3		
PSY	437	Human Factors	Emphasizes human factors in high-technology systems. Specific topics include systems development, systems analysis techniques, displays, and controls.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	
PSY	438	Human-Computer Interaction	Theories, methods, and findings concerning the usability of computer systems and the design of effective user interfaces.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	439	Training and Skill Acquisition	Theories, methods, and findings concerning the acquisition of skilled performance and the design of effective training systems.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	440	Industrial/Organizational Psychology	Examines personnel selection, performance assessment, job and workplace design, job satisfaction, organizational behavior, management systems, and industrial safety.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	448	Human Factors in Transportation	Examines human performance and human-machine design issues in aviation and ground transportation.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	449	Human Factors in Sport	Examines how psychological principles can be applied to enhance the performance of athletes and coaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	477	Applied Psychology Capstone Experience	Applied psychology from a systems perspective. Requires a report based on research and/or applied work as a culminating experience.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-6		
PSY	492-E	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-6		
PSY	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-4		
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-3		
PSY	528	Sensation and Perception	Principles of sensory and perceptual processes, emphasizing research literature.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	530	Intermed Statistics	One-way and factorial designs, contrasts, post-hoc tests, probing of interactions, mixed designs, power, computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	531	Multiple Regression in Psychological Research	Multiple regression and correlation, hierarchical regression, interactions, curvilinear relationships, categorical predictors, ANOVA in regression, regression diagnostics, regression graphics.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	560	Advances in Theoretical Psychology	Covers new empirical and theoretical work in psychology with emphasis on its applicability.	N	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	561	Methods in Applied Psychology	Methods of particular value in applied settings, including usability testing, prototyping, and use of computers in data collection and analysis. May be repeated for credit up to 9 hours.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	562	Advanced Human Factors	In-depth study of the issues, methods, and findings in industrial and organizational psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	563	Advanced Industrial and Organizational Psychology	In-depth study of the issues, methods, and findings in industrial and organizational psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-4		
PSY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		Pre-requisites: Freshman; 25 or less total earned hours
PSY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	CS	Pre-requisites: PGS 101 with a grade of C or greater; Must have completed one of the following with a grade of C or greater or in progress: MAT 119, 170, 242, 243, 251, 260, 261, 262, 270, 271, 272, 274, 290 or 291
PSY	231	Honors Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology for honors students. Lab includes learning to use statistical software packages.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.	CS	Pre-requisites: Barrett Honors student; MAT 119, MAT 170, MAT 242, MAT 251 or higher with C or better; PGS 101 with C or better
PSY	290	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.	L or SG	Pre-requisites: ENG 101 with C or better or currently enrolled; PSY 230 or one of the following courses with a C or better or currently enrolled: ECN 221, JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	325	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	CS	Pre-requisites: PSY 230 or one of the following courses with C or better: JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	390	Experimental Psychology	Continuation of concepts in PSY 290, with emphasis on multifactor designs and programmatic sequence of experiments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	399	Supervised Research		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		
PSY	420	Analysis of Behavior	Research, applications, and philosophy of the analysis and control of human behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 and 320 with C or better
PSY	422	Motor Control in Special Populations	Discusses principles of motor control theories and related practical applications for certain special developmental populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed KIN 345 with a grade of C or greater or be currently enrolled
PSY	424	Genetic Psychology	Introduces the concepts, methodologies, and findings of behavioral genetics for Psychology majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 with C or better
PSY	425	Biological Bases of Behavior	Critical study of physiological psychology, e.g., brain mechanisms underlying motivation, learning.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	
PSY	426	Neuroanatomy	Structure and function of mammalian brain, including sheep brain dissection.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.		Pre-requisites: Must have completed PSY 325 with a grade of C or greater or be currently enrolled
PSY	427	Immunoneuropsychology: Research Foundation	Mind and the immune system's mutual influence (including neuroimmunologic diseases), with an emphasis on the molecular and cellular mechanisms involved.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	434	Cognitive Psychology	Human organism as a processor of information, from perception to cognition. Abstract concepts, semantic memory, attention, and mental imagery.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 323 or PSY 324 with C or better
PSY	437	Human Factors	Emphasizes human factors in high-technology systems. Specific topics include systems development, systems analysis techniques, displays, and controls.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 with C or better
PSY	470	Psychopharmacology	Basis of drug action at physiological and behavioral levels. Psychological and medical applications and limitations of drugs used in the treatment of mental illness.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 325 AND one of the following: BIO 181, 182, 187, 188, 201, 202, ZOL 201 or ZOL 202 AND one of the following: CHM 113, 114, 115, 116, 117 or 118, with a grade of C or greater or be currently enrolled
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Psychology	1-6		Pre-requisites: Must be an Honors student
PSY	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Psychology	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-6		Pre-requisites: Must be an Honors student
PSY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-7		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-3		
PSY	501	Supervised Teaching	Experience in and examination of perspectives on teaching undergraduate psychology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	506	Survey of Research in Environmental Psychology	Major topics and paradigms in the study of person-environment relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	512	Advanced Learning	Principles and theories of learning, emphasizing research literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	524	Advanced Physiological Psychology	Contributions of physiological processes and brain function to fundamental behavioral processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	528	Sensation and Perception	Principles of sensory and perceptual processes, emphasizing research literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	530	Intermed Statistics	One-way and factorial designs, contrasts, post-hoc tests, probing of interactions, mixed designs, power, computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	531	Multiple Regression in Psychological Research	Multiple regression and correlation, hierarchical regression, interactions, curvilinear relationships, categorical predictors, ANOVA in regression, regression diagnostics, regression graphics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	532	Analysis of Multivariate Data	Matrix algebra for multivariate procedures, component and factor analysis, canonical and discriminant analysis, classification, MANOVA, logistic regression, hierarchical linear model.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	533	Structural Equation Modeling	Path analysis; exploratory and confirmatory factor analysis; recursive and nonrecursive latent variable models; mean and covariance structures; latent growth models.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	534	Psychometric Methods	Theory and practice of psychological measurement using classical and modern test theories. Reliability assessment, test validation, test construction, test usage.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	535	Cognitive Processes	Theoretical/empirical treatment of the human organism as a processor of information, including abstraction, memory structure, problem solving, and thinking.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	536	Statistical Methods in Prevention Research	Statistical methods used in prevention research including epidemiological methods, logistic regression, program effect estimation, estimation, and mediation analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	537	Longitudinal Growth Modeling	Growth modeling methodology to describe individual variation in development over time. Employs multilevel and structural equation modeling frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	538	Advanced Structural Equation Modeling	Mean and covariance structure analysis. Includes multiple-group modeling, two-level hierarchical modeling, longitudinal growth modeling, analysis with categorical outcomes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	541	Research in Cognitive Development	Theoretical and empirical issues in the study of children's knowledge and cognitive processes. Comparison of research in Piagetian and other traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	542	Social Development	Reviews and critiques major issues in the area of social development. Covers theory, research, and content.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	550	Advanced Social Psychology	Theory and research concerning interpersonal perception, decision making, attitude formation and change, group processes, social motivation, and interaction processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	551	Advanced Social Psychology	Continuation of PSY 550.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	553	Social Influence	Researches literature relevant to attitude formation and change, conformity, obedience, power, compliance, and altruism and others.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	555	Experimental and Quasi-Experimental Designs for Research	Reviews research techniques. Analyzes lab and field research; applications to specific topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	569	Advanced Study of Personality	Personality as a theoretical concept in psychology, including definitional problems, behavioral and traditional approaches, the measurement of personality, and current research issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	572	Psychological Assessment	Theory and research on assessment of personality, psychopathology, and intelligence; construction of psychological assessment instruments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	573	Psychopathology	Theory and research relating to the contribution of psychological, social, physiological, and genetic factors to the development and persistence of abnormal behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	574	Psychotherapy	Detailed survey of the theoretical and empirical literature relating to verbal psychotherapy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	578	Developmental Psychopathology	Covers major theories and research related to the development of psychological disorders of childhood and adolescence.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	582	Community Psychology	Community systems, intervention techniques, consultation models, history and current status of community mental health movement, and conceptualization of the roles of community psychologists in social system intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	624	Clinical Neuroscience	Examines the biological underpinnings of psychological disorders at the molecular, cellular, and system levels (e.g., schizophrenia, depression, anxiety).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-15		
PSY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		
PSY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Psychology	1-15		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: MAT 119, 170, 210, or 270 with a D or better or currently enrolled; PGS 101 with a C or better or currently enrolled
PSY	290-W	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SG	Pre-requisites:ENG 102, 105 or 108 with a C or better or currently enrolled; PSY 230 with a C or better or currently enrolled
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	325-W	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: must have completed PSY290 with a grade of D or greater or be currently enrolled.
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	369	Biology of Human Sexuality	Biology of Human Sexuality	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with a C or better or be currently enrolled AND completed one semester of Biology with a D or better or be currently enrolled.
PSY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PSY	425	Biological Bases of Behavior	Critical study of physiological psychology, e.g., brain mechanisms underlying motivation, learning.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: must have completed PSY325 with a grade of D or greater or be currently enrolled and specific plans only.
PSY	470	Psychopharmacology	Basis of drug action at physiological and behavioral levels. Psychological and medical applications and limitations of drugs used in the treatment of mental illness.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 290 and PSY 325 with a C or better or currently enrolled
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
PSY	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PSY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-requisite: PGS 399 with C or better
PSY	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PUB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		Pre-requisites: Freshman; maximum 25 hours
PUB	501	Introduction to Scholarly Publishing	Introduces the purpose, organization, and operation of scholarly publishing, including its history, societal role, and current issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PUB	502	Scholarly Editing	Publishing procedures, proofreading, and manuscript editing of scholarly books, textbooks, and scholarly journals.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	503	Advanced Scholarly Editing	Advanced manuscript editing, acquisitions, developmental editing, and indexing of scholarly books, textbooks, and scholarly journals.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	510	Research in Scholarly Publishing	Individual or group research projects on issues in scholarly publishing, including legal, economic, design, technological, and related topics.	N	DIS	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	580	Practicum	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PUB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PUB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PUB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	CNV	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PUB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	THE	N	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PUP	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & H & G	

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PUP	190	Sustainable Cities	Introduces technological, social, and cultural principles and innovations for cities under the notion of sustainability and sustainable development within the global, regional, and local contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(HU or SB) & G	
PUP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	200	Planned Environment: Cities in Cinema	Environmental, aesthetic, social, economic, political cultural, and other factors influencing global cities seen through films from around the world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & H & G	
PUP	261	Urban Planning I	Planning communication: communication techniques for urban planning and landscape architecture communication. Credit is allowed only for PUP 261 or PLA 261.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	262	Urban Planning II	Reading the landscape: observing, experiencing, and graphically expressing the symbolic and aesthetic significance of natural landscapes.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	301	Introduction to Urban Planning	Theoretical and practical aspects of city planning. Interrelationships among physical planning, environment, government, and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	
PUP	322	Computers in Planning	Planning methods using Geographic Information Systems, database, spreadsheet, image manipulation, and desktop publishing computer software packages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	361	Introductory Urban Planning Studio	Basic site planning and design techniques. Collection and analysis of information and basic planning research. Report writing and public presentation skills. Fee.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning student
PUP	362	Urban Planning III	Neighborhood planning: local community plan making; urban development and neighborhood improvement. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning undergraduate student; PUP 361 with C or better
PUP	363	History of Planning	Historical overview of western urban and regional planning and planning theory, focusing on the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Design Studies, Urban Planning or Housing & Urban Developmnt undergraduate student
PUP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	410	Public Participation in Planning	Theory and practice of public participation in planning. Examines and critiques participation techniques and roles of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 301 with a C or better; must be a BSP student; must co-register in PUP 432, and PUP 433
PUP	412	History of the City	The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(L or HU) & H	Pre-requisites: Urban Planning, Design Studies, Landscape Architecture or Architectural Studies undergraduate student
PUP	420	Theory of Urban Design	Analyzes the visual and cultural aspects of urban design. Theories and techniques applied to selected study models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU	Pre-requisites: Urban Planning student
PUP	424	Planning Methods	Methods for urban planning research. Emphasizes research design, quantitative and qualitative methods, survey research, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning undergraduate student; PUP 301 with C or better
PUP	425	Urban Housing Analysis	Nature, dimensions, and problems of urban housing, government policy environment, and underlying economics of the housing market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following students: Urban Planning BA, Landscape Architecture BSLA, Architectural Studies BSD or Housing & Urban Developmnt BSD
PUP	430	Transportation Planning and the Environment	Overview of transportation planning from the perspective of land use planning, economic development, environmental planning, and social needs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	432	Planning and Development Control Law	Case studies on police power, eminent domain, zoning, subdivision controls, exclusion, preservation, urban redevelopment, and aesthetic and design regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student
PUP	433	Zoning Ordinances, Subdivision Regulations, and Building Codes	Analyzes zoning ordinances, subdivision regulations, building codes, and other planning implementation techniques relative to local development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student
PUP	434	Urban Land Economics	Interaction between space and economic behavior. Examines the use and value of land through economic theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student

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PUP	436	City Structure and Planning	Political structure and organization of government as it relates to planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student; PUP 301 with C or better
PUP	441	Economic Concepts and Environmental Planning	Overview of environmental and ecological economics and how their concepts and tools are used in dealing with environmental planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisite:PUP 301 with a grade of C or better
PUP	442	Environmental Planning	Environmental planning problems, including floodplains, water quality and quantity, solid and hazardous waste, air quality, landslides, and noise.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student; PUP 301 with C or better
PUP	444	Preservation Planning	History, theory, and principles of historic preservation. Emphasizes legal framework and methods practiced.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following Academic Levels: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	445	Women and Environments	Examines the role women play in shaping the built environment; ways built/natural forms affect women's lives. Focuses on contemporary U.S. examples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	C	Pre-requisites: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	452	Ethics and Theory in Planning	Ethics and theory of professional planning practice in urban and regional communities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	Pre-requisites: Urban Planning undergraduate student
PUP	461	Urban Planning IV	Comprehensive planning: collection and analysis of economic, social, and environmental data relevant to urban planning; development of land-use plans. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning undergraduate student; PUP 362 with C or better
PUP	462	Advanced Urban Planning Studio	Comprehensive planning. Synthesis of complex data- and community-based analyses. Advanced report writing and public presentation skills. Fee.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning Seniors; PUP 361 with C or better
PUP	465	New Urbanism	History, theory, principles and practice of New Urbanism, including current critiques and counter-critiques of both movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 301 with a grade of C or better
PUP	475	Environmental Impact Assessment	Criteria and methods for compliance with environmental laws; development of skills and techniques needed to prepare environmental impact statements/assessments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban Planning undergraduate student
PUP	485	International Field Studies in Planning	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12	G	
PUP	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
PUP	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
PUP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		Pre-requisites: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
PUP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	501	The Idea of Planning	Comprehensive review of planning profession within a political, governmental, multicultural, and gender framework.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	510	Citizen Participation	Theory and practice of citizen participation in planning. Examines and critiques participation techniques and roles of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning student
PUP	515	International Planning and Development	Introduces globalization, international development, international planning practices and policies, urbanization and urban and regional planning in developing nations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		

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PUP	516	International City Design	Comparative exploration of the physical design and structure of international cities and the social, economic, and cultural forces shaping them.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	520	Planning Theories and Processes	Reviews past and current theoretical developments related to social change perspectives, the role and ethics of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	524	Planning Methods I	Methods for urban planning research. Emphasizes research design, demographic analysis, forecasting, and survey research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	525	Urban Housing Analysis	Nature, dimensions, and problems of urban housing, government policy environment, and underlying economics of the housing market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	526	Historic Preservation Planning Practice	In-depth study of practical applications of historic preservation theory and methods. Overview of the professional work of the preservation field.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
PUP	527	Preservation Planning		N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites:PUP 501 with a grade of C or better
PUP	531	Planning and Development Control Law	Case studies on police power, eminent domain, zoning, subdivision controls, exclusion, preservation, urban redevelopment, and aesthetic and design regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	532	Advanced Urban Planning Law	Advanced study on selected issues in planning law, such as urban design controls, exclusionary practices, compensable regulation, and tax policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	535	Water Law and Planning	In-depth study of legal materials providing substantive knowledge of water law, water management issues, and land use planning options.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	541	Economics of Environmental Planning	Application and limitations of economics in environmental planning and policy making in the United States and internationally.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	542	Environmental Administration and Planning	Environmental administration of policies and their relationship to environmental planning practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	544	Urban Land Use Planning	Theory and methods of urban land use planning, including the rational planning process, comprehensive, functional, and neighborhood plans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	546	Urban Design Policy	Advanced study of local, state, and federal urban design policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	547	Gender, Activism and the Built Environment	Explores issues of gender in the built environment. Includes traditional attitudes toward gender underlying the physical form and continuing impacts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	548	Planning for Sustainable Communities	Theory and applications connecting sustainability sciences and practice to urban environmental planning. Sustainable urban development, restoration, and preservation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	550	Urban Transportation Planning and Policy	Examines transportation planning from the perspectives of land use planning, economic development, environmental planning, and social needs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	551	Sustainable Transportation Planning	Discusses the sustainability aspects of transportation planning. Emphasizes nonmotorized transportation, facilities, and public health.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	561	Urban Design Studio	Current urban form and urban landscape design problems within the Phoenix-centered region.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	562	Advanced Theory of Urban Design	Study of urban design practice and underlying social, political, and environmental issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	563	The Politics of Urban Space and Design	Advanced seminar critically examines major intellectual traditions investigating urban form, the production of urban space, and socio-spatial practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	572	Planning Studio I: Data Inventory and Analysis	Comprehensive planning workshop dealing with real community problems. Focuses on the data gathering and analysis steps of the planning process. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	574	Planning Studio II: Options and Implementation	Comprehensive planning workshop dealing with real community problems. Focuses on the development of options, plan making, and plan implementation. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PUP	575	Environmental Impact Assessment	Criteria and methods for compliance with environmental laws; develops skills and techniques needed to prepare environmental impact statements/assessments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	576	GIS and Planning	GIS as a tool to address large, multifaceted planning problems.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisite: Urban/Environmntl Planning MUEP student
PUP	585	International Field Studies in Planning		N	FLD	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		Pre-requisites: Urban and Environmental Planning graduate student
PUP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	622	Planning Methods II: Quantitative Planning Analysis	Methods and models used as the basic quantitative techniques of urban, regional, and environmental planning and policy analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 524 with C or better
PUP	642	Land Economics	Land use and locational impact of economic activity and the urban real property market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	644	Public Sector Planning	Urban fiscal problems and public goods provision in state and local governments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PUP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
QBA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-3		
QBA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	221	Statistical Analysis	Methods of statistical description. Applies probability theory and statistical inference in business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: Must have completed one of the following courses with a grade of D or greater or be currently enrolled: MAT 119, MAT 211 or MAT 271
QBA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6		
QBA	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6	L	Pre-requisites: Must be an Honors student
QBA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-6		
QBA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-7		
QBA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-3		
QBA	502	Managerial Decision Analysis	Fundamentals of qualitative and quantitative analysis to aid management decision making in a competitive and uncertain environment.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: MBA student
QBA	508	Product and Service Innovation	Develops strategies for innovation in products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		W.P. Carey Graduate Students only
QBA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Graduate Students only (degree and non-degree seeking)
QBA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		

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QBA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Graduate Degree Seeking Students only
QBA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-12		
QBA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: W.P. Carey Graduate Degree Seeking Students only
QBA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-15		
QBA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-15		
RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
RDG	510	Teaching Writing in the Elementary Classroom	Develops rationale, theory, and related practices for teaching writing in K-8 classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	512	Theoretical Foundations in Language and Literacy	Introduces theoretical lenses useful in understanding issues in language and literacy education and research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	521	Assisting the Struggling Adolescent Reader	Familiarizes teachers with literacy interests, practices, methods, strategies, and resources to develop and enhance students' enjoyment of learning with texts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

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RDG	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	530	Research Issues in Literacy	For graduate students interested in research on major issues related to literacy instruction. Seminar activities include reviewing quantitative and qualitative methods and analyzing literacy research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	533	Literacy in Secondary BLE/ESL Settings	Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	534	Literacy in Science and Math		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	2-3		
RDG	550	Practicum Experiences in Elementary and Secondary Reading	Practicum experience utilizing assessment and instructional techniques for classroom settings. See RDG 557 for State of Arizona reading endorsement.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	556	Assessment and Procedures in Elementary and Secondary Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
RDG	557	Advanced Elementary and Secondary Reading Practicum	Advanced practicum experience utilizing specialized reading and other assessment and instruction techniques for classroom and clinic settings. Lab sections. Recommended for State of Arizona reading endorsement. May be taken concurrently with RDG 556.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	565	Literature for Latina and Latino Children and Adolescents	Selects, analyzes, and utilizes literature for Hispanic and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	581	Literature-Based Reading Programs		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	596	Gender, Culture, and Literacies	Influence of gender and culture on written, oral, and post-typographical texts.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student

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RDG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	630	Research in Literacy	For advanced graduate students interested in applied research problems, literature of literacy instruction, and major issues related to literacy research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
RDG	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	634	Technoliteracies	Online course explores the nature of digital communications and expanding definitions of what counts as text and as literate expression.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		Pre-requisites: Must be Post Bac, Non Degree Graduate or Degree Graduate. Credit is allowed for only EDT 634 or RDG 634
RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	507-W	Content Area Reading	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must be a Post Bacc Secondary Ed or a Master of Education student in the College of Teacher Education & Leadership
RDG	512	Theoretical Foundations in Language and Literacy	Introduces theoretical lenses useful in understanding issues in language and literacy education and research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	531	Language and Literacy I	Instructional strategies for teaching reading using systematic, research-based phonics to aid decoding, vocabulary, comprehension development, writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	532	Language and Literacy II	Applies literacy strategies including instruction and diagnostic assessment, literacy lessons with adaptations for diverse learners, and extended classroom experiences.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	550-W	Practicum Experiences in Reading	Experience utilizing reading diagnostic and instructional techniques for classroom and clinic settings. Lab sections. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	556	Assessment and Procedures in Elementary and Secondary Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	556-W	Assessment Procedures in Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
RDG	581	Literature-Based Reading Programs		N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
RDG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
RDG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
RDG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RDG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	301	Literacy and Instruction in the Content Areas	Required course for all Secondary Education candidates. Introduces theory and instructional strategies for learning from text across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
RDG	301	Literacy and Instruction in the Content Areas	Required course for all Secondary Education candidates. Introduces theory and instructional strategies for learning from text across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	322	Language Literacy 1 in Elementary Schools	Instructional strategies for teaching reading using systematic research-based phonics to aid decoding; vocabulary; and comprehension development; writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student; BLE 321, EDP 323, EED 324 and EED 397 OR Special Ed student; SPE 310, SPE 320, SPE 317, SPE 322 and SPE 397 OR PDS (Professional Development School) student as appropriate
RDG	322	Language Literacy 1 in Elementary Schools	Instructional strategies for teaching reading using systematic research-based phonics to aid decoding; vocabulary; and comprehension development; writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	323	Literacy Processes in Content Areas	Principles and practices for planning subject matter units of instruction that explicitly address learning with texts across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: SED 321, SED 322 and SED 397 Pre-requisites: TEL 311, TEL 313, TEL 314, TEL 315 and BLE 312 with a C or better or currently enrolled; TEL 396 with a Y or currently enrolled; Secondary Ed student
RDG	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
RDG	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
RDG	413	Language Literacy 2 in Elementary Schools	Applies literacy strategies, including instruction and diagnostic assessment, literacy lessons with adaptations for diverse learners, extended classroom experiences.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student, EED 411, EED 412, EED 414, EED 496 OR PDS (Professional Development School) student
RDG	414	Teaching Reading and Decoding	Emphasizes teaching reading as part of an integrated classroom curriculum. Includes strategies and skills for teaching decoding (phonics), vocabulary, comprehension, study skills, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	414	Teaching Reading and Decoding	Emphasizes teaching reading as part of an integrated classroom curriculum. Includes strategies and skills for teaching decoding (phonics), vocabulary, comprehension, study skills, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
RDG	415	Teaching Phonics	Provides training in phonics instruction with the study of related research and classroom experiences as appropriate. Lecture, discussion.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisites: Initial Teacher Certification Program Admission; Co-requisites: EED 331, RDG 431, SPE 416, EED 496 and EED 433
RDG	431	Teaching Methods, Management, Strategies, and Assessment of Reading K-3 with Practicum	Examines reading processes, literacy development, comprehension, fluency skill/strategy development, assessments, management, and reading models/programs for K-3 students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; Co-requisites: RDG 415, EED 331, SPE 416, EED 496 and EED 433
RDG	432	Teaching Methods, Management, Strategies, and Assessment of Reading 4-8 with Practicum	Examines reading processes, content area literacy development, skill/strategy development, assessments, management, and reading models/programs for intermediate students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Pre-requisites: Initial Teacher Certification Program Admission; EED 433, RDG 415, EED 498, RDG 431 and SPE 416 completed with C or better or currently enrolled; EED 496 with Y or currently enrolled
RDG	440	Computer Gaming, Learning, and Literacy	Examines the principles of learning underlying well-designed video and computer games. Addresses the literacies involved in such games.	N	LEC	N	GRD	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must have a grade of C or better in CPI 111 and CPI 211
RDG	481	Reading Practicum		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	481	Reading Practicum		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
RDG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
RDG	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
RDG	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
RDG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
RDG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RDG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RE	302	Life and Letters of Paul		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of Supply Chain Management	3.		
RE	584	Internship		Y	LEC	Y	CNV	W.P. Carey School of Business	Department of Supply Chain Management	3.		
REA	380	Real Estate Fundamentals	Real estate for the student/consumer with an emphasis on the applied aspects of each area of real estate specialization. Not open to Real Estate majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.00 and a minimum total earned hours of 56, OR be a non-degree seeking student or Graduate student
REA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		
REA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		
REA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
REA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
REA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
REA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-12		
REA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
REA	300	Real Estate Analysis	Applies economic theory and analytical techniques to real estate markets. Topics include law, finance, appraisal, market analysis, investments, development.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		

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REA	331	Real Estate Finance	Legal, market, and institutional factors related to financing proposed and existing properties. Emphasizes current financing techniques and quantitative methods. Prerequisites: FIN 300; professional program business student. In addition to individual course prerequisites, nonbusiness students must have at least a 2.50 ASU cumulative GPA, a 2.50 ASU business GPA, and 56 earned semester hours to register for any upper-division business course unless otherwise noted.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
REA	401	Real Estate Appraisal	Factors affecting the value of real estate. Theory and practice of appraising and preparation of the appraisal report. Appraisal techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	441	Real Estate Land Development	Neighborhood and city growth. Municipal planning and zoning. Development of residential, commercial, industrial, and special purpose properties.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Must have completed REA 300 with a grade of D or better
REA	456	Real Estate Investments	Analyzes investment decisions for various property types. Cash flow and rate of return analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
REC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	501	Program Evaluation and Information Management	Develops skills in several areas, including evaluation, needs assessment, information and data collection, data management and analysis, computer applications, and report writing.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	502	Statistical and Data Analysis	Introduces descriptive and inferential methods used in community development, with an emphasis on nonprofit, tourism, and recreation sciences. Students gain experience using statistical software.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	502	Statistical and Data Analysis	Introduces descriptive and inferential methods used in community development, with an emphasis on nonprofit, tourism, and recreation sciences. Students gain experience using statistical software.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	530	Recreation and Tourism Service Management	Examines and applies organizational behavior, leadership, human resources, development, planning, and risk management to profession.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	552	Critical Issues in Recreation and Tourism	Examines critical research issues in the leisure, recreation and tourism fields.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	555	Theoretical Perspectives in Community Development	Reviews theoretical and empirical literature in community development with an emphasis on nonprofit, tourism, and recreation sciences.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	569	Advanced Tourism Studies	Advanced survey of tourism literature with an emphasis on relevant theories, concepts, and current research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	570	Social Aspects of Outdoor Recreation Management	Analyzes the social aspects of natural resource science, policy, and management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	579	Tourism Analysis	Examines theories and methods that govern tourist behavior and their relevance to destination development, operations, and management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		

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REC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
REC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
REC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-12		
REC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
RED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
RED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		
RED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
RED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
REL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & G	Pre-requisites:Total Earned Hours must be less than or equal to 75 Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various interectors between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	205	Living and Dying	Ways that religions have understood birth, sexuality, death, and the passing of generations. Examples from traditions throughout the world. Lecture, discussion.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	210	Introduction to Judaism	Beliefs, ceremonies, festivals, and institutions of Judaism emphasizing the contemporary era. Assumes no previous knowledge about Judaism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
REL	225	African American Religion	Introduces the history and development of the African American religious tradition.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G	
REL	260	Introduction to Islam	Examines Islamic beliefs, ceremonies, festivals, and institutions. Assumes no prior knowledge about Islam.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	270	Introduction to Christianity	Beliefs, ceremonies, festivals, and institutions of Christianity, emphasizing the contemporary era. Assumes no previous knowledge about Christianity.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
REL	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		
REL	301	Comparative Mysticism	Comparative examination of Eastern and Western mystical traditions from antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	305	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
REL	310	Western Religious Traditions	Religious traditions of Judaism, Christianity, and Islam, comparing their doctrinal, institutional, and ritual systems and social histories.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	313	Anti-Semitism in the Media	By examination and discussion of various media, explores the phenomenon of modern anti-Semitism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
REL	314	Jewish Philosophy	The history of Jewish philosophy from its origins in the Hebrew Scriptures to postmodern expressions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102 (or 105, or 108) with a grade of C or better. Students who have credit for PHI 390 may not enroll in REL 314
REL	315	Hebrew Bible (Old Testament)	Nature, content, background, historical situation, and message of the books of the Hebrew Bible in English translation.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
REL	317	Introduction to Rabbinic Judaism	Historical analysis of the thought, literature, and institutions of rabbinic Judaism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	318	Contemporary American Jewish Identities	Analyzes the complexity and diversity of the contemporary American Jewish community in religious and secular affairs.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C	
REL	320	American Religious Traditions	Examines the formation, development, and interaction of major American religious traditions (indigenous, African American, Asian American, and Euro-American).	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C & H	
REL	323	African American Religion: A Biographical Approach	Examines the experiences, motivations, and contributions of a number of figures associated with African American religion.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	324	Spirituals and the Blues	Multidisciplinary exploration of the African American religious and musical response to the North American diaspora experience.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	326	Latina/o and Latin American Religions and Cultures	Surveys the formative myths, rituals, and symbols and religious expressive cultures of U.S. Latinos and Latin Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	330	Native American Religious Traditions	Presents world views and religious thought through the art, architecture, literature, music, mythology, ritual, and folklore of representative tribes in North America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	331	History of Native American Religious Traditions	Role of religion in Native American history, including missionization; religious adaptation; and prophetic, messianic, and religious revitalization movements.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & C & H	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	332	South American Indian Religions	Introduces the sacred stories, ceremonies, and beliefs of Native South American peoples in their historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	343	Daoism	Introduces the history, doctrines, and practices of Taoism from the mid-second century CE up to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & G & H	Pre-requisites: ENG 102 or 105 or 108 with a C or better
REL	344	Religion and Values in Japanese Life	Japanese values expressed in the life and annual cycles of the family, local and national identities, and popular culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	345	Asian Religious Traditions	Introduces the major concepts of religious beliefs, rituals, and practices in Hinduism and Buddhism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	346	Chinese Religions	Examines the history and practices of Chinese religions with particular attention to culture, society, and history.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	350	Hinduism	Studies diverse forms of Hinduism through its institutions, literature, folklore, art, and architecture.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & G	
REL	351	Buddhism	Doctrines, practices, and institutions of the Buddhist religion, emphasizing its role in the history and culture of Asian societies.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & G	
REL	353	Folk Religions of Korea	Introduces forms of folk religions in Korea: shamanism, village rituals, ancestor-worship, fortune-telling, geomancy, and folk elements in major traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
REL	354	Religious Traditions of Korea	Examines major religious traditions of Korea: Buddhism; Christianity; Neo-Confucianism; indigenous practices and their development through political, cultural, and social frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
REL	355	Japanese Cities and Cultures to 1800	Relations among ideas and literary, visual, and performing arts of the ancient aristocracy, medieval samurai, and early modern townspeople.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
REL	356	Buddhism in America	Examines diverse Buddhist traditions in the U.S. among Asian-American communities and converts to this religion.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled
REL	357	Theravada Buddhism in South and Southeast Asia	Examines Theravada Buddhist institutions, practices, and communities in ancient and contemporary south and southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L & G	Pre-requisites:ENG 102, (or 105, or 108) with a grade of C or better
REL	365	Islamic Civilization	Global historical survey of Islamic cultures and societies up to the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	366	Islam in the Modern World	Examines the worldwide transformations of Islamic religion, cultures, and societies in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H & G	
REL	369	Women in Islam	Examines the roles women have played through Islamic history (Middle East) and the changing discourse on gender identity.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	371	New Testament	Origins and literature of early Christian communities; historical investigations of the types of oral and written tradition in the New Testament.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	372	formation of the Christian Tradition	Origins, development, and expansion of Christianity; major themes and tensions from the New Testament world to the beginning of the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	373	Women in Judaism	Studies the legal, social, and cultural status of Jewish women in various historical and contemporary societies.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	374	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
REL	375	Lost Scriptures, Lost Christianities	Wide diversity of early Christianity and its suppressed and lost texts, which have been found in modern times.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	376	Virgin Mary in History, Film, and Culture	Introduces formation and development of cult of the Virgin Mary; analyzes transformations of Mariology within historical, cinematic, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or ENG 108 with C or better. Credit is allowed for only FMS 376 or REL 376
REL	377	Religion in Russia	Examines the history of the various religious traditions of Russia and the former USSR from an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	

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REL	379	Religion, Nationalism, and Ethnic Conflict	Examines the role of religion in national and ethnic conflict in the contemporary world.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	380	Theology of Terror	Historical background, theological foundations, and consequences of violent Islamist movements.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
REL	382	Religion, Magic, and Science	Relationship and conflict among religion, magic, and science in the West from antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
REL	383	Origins, Evolution, and Creation	Examines scientific, mythic, and religious ideas relating to origins (particularly human). Place of antievolutionism and scientific creationism in American culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	384	The Bible and Archaeological Discoveries	Studies the Bible alongside the stories that architecture, pottery, metalwork, sculpture, tombs, and paintings of the ancient Near East have to tell. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	385	Contemporary Western Religious Thought	Introduces contemporary Jewish and Christian thought. Topics include religion and politics, problem of evil, interpretations of God, and feminist theology.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	386	America and the Holocaust	Analyzes the historical and sociopolitical factors that shaped U.S. policy decisions regarding Germany's assault on Europe's Jews.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU or SB	
REL	388	Religion, Ethics, and International Politics	Explores the religious and ethical dimensions of international politics by examining historical and contemporary ideas, movements, issues, and events.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must have a C or better in ENG 102, or ENG 105, or ENG 108, or currently enrolled
REL	390	Women and Religion	Role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	391	Philosophy and Religion	General survey of the development of central concepts in the philosophy of religion in the history of Western philosophy.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, or ENG 105, or ENG 108, with a grade of C or better, or be currently enrolled
REL	393	Religion and Sexuality	Examines what issues are involved in incorporating sexuality into religion and how/why religious traditions seek to control sexuality.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
REL	395	Religion and Psychology	Examines religious experience from various psychological viewpoints and explores the relationship between religion and psychology in theory and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, ENG 105 or ENG 108 with C or better
REL	396	Women in the Bible	Uses feminist criticism to reconstruct the remarkable women who stand in the shadow of the patriarchy in the bible.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must have a C or better in ENG 102, or ENG 105, or ENG 108, or currently enrolled
REL	400	Approaches to Religion	Examines the intellectual history of academic study of religion through various theoretical approaches, major themes, and thinkers.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be a Religious Studies student
REL	405	Problems in Religious Studies	Selected topics in religious studies; involves students in research interests of instructor.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Religious Studies undergraduate student
REL	410	Judaism in Modern Times	Variety of expressions of Judaism and Jewishness in the modern period. Topics may include American Judaism or religious responses to the Holocaust.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	420	Religion in American Life and Thought	Influence of religion on American society, culture, and ideas; the distinctive character of religion in America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	427	American Religious Thought	Thought of representative American religious thinkers, e.g., Jonathon Edwards, William Ellery Channing, Horace Bushnell, and Reinhold Niebuhr.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	430	Mesoamerican Shamanic Cosmographies	Analyzes process of religious hybridization in Mesoamerica; examines symbolic interpretations of Amerindian religious practice and cosmological concepts of Mesoamerican priests.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with C or better
REL	444	Religion in Japan	Religion in Japanese history, especially the development of Japanese Buddhism, and religion in the modern transformation of Japan.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H & G	

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REL	460	Studies in Islamic Religion	Issues in the interpretation and understanding of Islamic texts, history, society, culture, and rituals. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	461	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only AFS 480, SGS 442 or REL 461
REL	470	Religion in the Middle Ages	Religious aspects of medieval life and thought; variety of forms of dissent, heresy, and reform movements from the 4th to 13th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	471	Reformation and Modern Christianity	Protestant Reformation to contemporary Christian movements; includes factors in the dissolution of the Medieval Christian synthesis, variety of reform movements and reformation patterns, Catholic counter-reform measures, formation of liberal theology, ecumenical movement, and the World Council of Churches.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	480	Religion and Global Politics	Explores the nature and role of religion in international politics in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	G	
REL	482	Religion, Violence, and Conflict Resolution	Focuses on the ambiguous, often confounding role of religion in local and global conflict and the pursuit of peace.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: ENG 102, 105 or 108 with C or better; Credit is allowed for only JUS 473, POS 473 or REL 482
REL	483	Religion and Science	Investigates the correlation between science and religion as an interdisciplinary study from a historical perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	486	Holocaust on Film	Examines how motion pictures recorded actual holocaust events and have depicted them since World War II.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better. Credit is allowed for only FMS 486 or REL 486
REL	487	Religion and Film	Uses a transdisciplinary approach to explore cinematic representations of religious institutions, belief, and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		Pre-requisites: Must be an Honors student
REL	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6	L	Pre-requisites: Must be an Honors student
REL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
REL	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		
REL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-7		
REL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		
REL	500	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	501	Research Methods in Religious Studies	Explores the major themes and methods in the study of religion, with primary focus on classical texts.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	502	Research Methods in Religious Studies	Explores the major themes and methods in the study of religion, with primary focus on contemporary texts.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		

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REL	581	Foundations of Ethics I	Studies primary texts of classic ethical theories and their applications to various issues in daily life and the professions. Ethical traditions include some of these frameworks: virtue ethics and natural law ethics, consequentialism and contractualism, deontology and critical communitarianism. Pays attention to the shifting nature of the relation between ethics and religion. In the applied, activity-portion of the course, students investigate real-life ethical issues and examine them from several normative perspectives.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	585	Ethical and Spiritual Issues in Pastoral Care	Recalling the ancient Socratic, biblical, and other spiritual traditions of the cura animarum (care for and cure of the soul) and joining contemporary post/secular conversations relevant to the integration of the body-mind-spirit, this course introduces basic concepts and practices of the pastoral care ethics and spirituality. Focuses on the irreducible relations among existential (ontological), therapeutic (psychosomatic), and spiritual (religious) dimensions of care. The theoretical part of the course is inter-faith in approach, holistic in scope, and specialized in content; in the applied, activity-portion of the seminar, students investigate real-life issues in care ethics and spirituality and examine them from several perspectives studied during the semester.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: AEP 501 and AEP 502 with a D or better; students who have credit for PHI 550 or REL 585, may not enroll in AEP 550
REL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		
REL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	603	Teaching World Religions	Seminar designed to prepare participants to teach a course similar to ASU's REL 100.	N	LEC	N	GRD	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Phd or Masters student in Religious Studies
REL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	720	Approaches to North American Religious History	Traces narratives and approaches to imagine and reimagine the "plot" of American religious history.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: PhD in Religious Studies student
REL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		
REL	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		
REL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisites: Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various intersectors between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	300	Research, Writing, and Thinking in Religion and Applied Ethics	Theoretical and methodological tools to study world religions' beliefs, practices, and communities and their intersections with ethical perspectives on problems.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better
REL	305-W	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
REL	310	Western Religious Traditions	Religious traditions of Judaism, Christianity, and Islam, comparing their doctrinal, institutional, and ritual systems and social histories.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	320	Religion in America	The emergence of religious ideas and institutions up to the Civil War.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C & H	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
REL	321-W	Religion in America	The emergence of religious ideas and institutions from the Civil War to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & H	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
REL	345	Asian Religious Traditions	Introduces the major concepts of religious beliefs, rituals, and practices in Hinduism and Buddhism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
REL	390-W	Women and Religion	The role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	Pre-requisite: ENG 101 or 105 with a C or better or currently enrolled
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	401	Sacred Scriptures and Social Choices	Examines relationships among contemporary moral issues and the sacred scriptures to support choices at individual, group, and public levels.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
REL	420	Religion in American Life and Thought	The influence of religion on American society, culture, and ideas; the distinctive character of religion in America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
REL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisite: Minimum CUM GPA of 2.00
REL	490	Senior Thesis	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student.	N	THE	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

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REL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
REL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
REL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
REL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
REL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	305-M	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G	Pre-requisites: Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various intersector between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
REL	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
REL	260	Introduction to Islam	Examines Islamic beliefs, ceremonies, festivals, and institutions. Assumes no prior knowledge about Islam.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	270	Introduction to Christianity	Beliefs, ceremonies, festivals, and institutions of Christianity, emphasizing the contemporary era. Assumes no previous knowledge about Christianity.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
REL	305	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	315	Hebrew Bible (Old Testament)	Nature, content, background, historical situation, and message of the books of the Hebrew Bible in English translation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
REL	320	American Religious Traditions	Examines the formation, development, and interaction of major American religious traditions (indigenous, African American, Asian American, and Euro-American).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C & H	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	330	Native American Religious Traditions	Presents world views and religious thought through the art, architecture, literature, music, mythology, ritual, and folklore of representative tribes in North America.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
REL	371	New Testament	Origins and literature of early Christian communities; historical investigations of the types of oral and written tradition in the New Testament.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
REL	372	formation of the Christian Tradition	Origins, development, and expansion of Christianity; major themes and tensions from the New Testament world to the beginning of the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
REL	374	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	390	Women and Religion	Role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	390	Women and Religion	Role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ROM	101	Elementary Romanian	Basic grammar with intensive drills in class and lab directed toward conversational fluency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
ROM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	201	Intermediate Romanian	Continuation of ROM 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
ROM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	313	Romanian Composition and Conversation	Develops skills in written Romanian and correct oral expression. Must be taken in sequence with ROM 314.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: ROM 201
ROM	314	Romanian Composition and Conversation	Continuation of ROM 313. Develops skills in written Romanian and correct oral expression. Must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: ROM 313
ROM	411	Advanced Spoken and Written Romanian I	Improvement of spoken and composition skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ROM 101, 201, 313, 314 with C or better
ROM	412	Advanced Spoken and Written Romanian II	Improvement of spoken and composition skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ROM 101, 201, 313, 314, & ROM 411 with C or better
ROM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ROM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	REC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ROM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ROM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RTM	120	Leisure and Quality of Life	Conceptual foundations for understanding the role of leisure in quality of life, socially, historically, psychologically, culturally, economically, and politically.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RTM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	210	Leisure Delivery Systems	Introduces development, management, and organization of the public, not-for-profit, and private sectors for the leisure services profession.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	301	Leadership in Recreation and Tourism	Leadership theory and strategies applied to recreation and tourism settings, emphasizing group dynamics, motivational processes, and supervisory skills.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have a GPA of 2.0 or greater
RTM	302	Recreation and Tourism for Diverse Populations	The role of recreation and tourism in serving the needs of culturally, physically, emotionally, mentally, and demographically diverse populations. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-requisites: must have a GPA of 2.0 or greater
RTM	303	Programming Recreation and Tourism Services	Foundations for effective programming of leisure services in public, not-for-profit, and private sectors. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must be in either HSRECBS or PPRECWBS, or PPTDMBS plans (Recreation & Tourism Mgmt majors)
RTM	304	Recreation and Tourism Areas and Facilities Management	Principles of management, care, function, and maintenance of recreation and tourism areas, facilities, and resources. Field and classroom based.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: must have a GPA of 2.0 or greater
RTM	320	Talent and Entertainment Concepts	Provides theory and skill development focused on management, marketing, finances, facilities, equipment, and operations related to coordinating entertainment elements.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites:Completed RTM 486 or PRM 486 with a grade of D or better, or currently enrolled
RTM	321	Event Protocol, Ethics, and Etiquette	Theoretical and practical focus on the special elements of protocol, ethics, and etiquette as they apply to special events management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	322	Special Event Programming	Provides a theoretical and practical base related to planning, organization, and coordination of activity elements that comprise the special events program.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	323	Special Event On-Site Operations	Theory and practical skills focused on security, parking, traffic, waste management, transportation, communication, storage, and other operational issues.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	324	Festival Site Design	Provides both a theoretical basis and practical skills focused on how to physically design and lay out a special event.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	325	Working with Subcontractors and Vendors	Theory and skills focused on equipment rentals, food and beverage vendors, arts and crafts vendors, commercial vendors, and other subcontracted entities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	326	Sponsorship	Provides theory and practical skills focused on selling, partnership, benefit/assets, and leverage concepts of sponsorship for special events.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	327	Creative Event Revenue Production	Provides both theoretical and practical skills focused on earned income and other alternative financing for special events.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	328	Budgeting and Accounting for Special Events	Focuses on details related to budgeting, accounting, and financial controls used in special event management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	355	Team-Building Strategies	Explores the concepts and strategies for facilitating team building, self-confidence, and positive self-esteem in situations across the lifespan.	N	LEL	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	360	Policy, Planning, Development of Recreation and Tourism Resources	Investigates the policy, planning, development, and management practices related to the provision of recreation and tourism opportunities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	373	Leisure Travel and Tourism	Examines leisure travel and tourism, tourist behavior, and the effect of tourism on communities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
RTM	388	Business Practices for Special Event Management	Emphasizes personnel, strategic planning, marketing, risk management, legal issues, and professionalism in special event management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	401	Administration of Recreation and Tourism Services	Basic application of management principles to recreation and tourism services. Includes budgeting, personnel actions, legal issues, and public relations. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RTM	402	Evaluation and Assessment in Recreation and Tourism	In-depth development of a program evaluation. Specification of objectives, instrument development and administration, data analysis, and reporting findings.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: PRM 304 or PRM 401 with a C or better if completed
RTM	403	Professional Development Seminar	Emphasizes current professional issues and refinement of professional philosophy and competencies that enable transition from student to professional.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must be a BS student in Recreation & Tourism Mgt
RTM	404	Marketing Recreation and Tourism	Principles of marketing and promotional strategy for recreation and tourism operations. Emphasizes case study experience with leading professionals.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	450	Leisure and Aging	Examines the factors influencing leisure among older adults, including policy issues and program service implications. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	451	Grant Writing for Human Service Professionals	How to increase grant funding: creating fundable ideas, identifying sponsors, following guidelines, writing effectively, constructing budgets, responding to reviewers.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	453	Volunteer Management in Human Service Organizations	Administration of volunteer service programs. Study and analysis of volunteer personnel process.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	454	Human Services for At-Risk Youth	Overview of policy and programs affecting at-risk youth; examines risk factors and programmatic solutions to them.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	458	International Tourism	Global examination of international tourism and its significance as a vehicle for social and economic development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
RTM	475	Entrepreneurial Recreation and Tourism	Examines the development, management, and future of for-profit ventures in recreation and tourism.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		Pre-requisites: Recreation & Tourism Mgt students
RTM	486	Special Events Management	Principles of programming and managing special events for diverse populations. Class plans, conducts, and evaluates a community special event. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	487	Special Events Management, Advanced	Advanced principles of special event sponsorship, public relations, marketing, contracting, risk management, and financial management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Completed RTM 486, or REC 486 or RTM 486 with C or better
RTM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
RTM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		Pre-requisites: must have a GPA of 2.0 or greater
RTM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
RTM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	580	Practicum		N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		

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RTM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RUS	101	Elementary Russian	Structural grammar and basic vocabulary. Introduces and reinforces aural/oral reading and writing skills. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
RUS	102	Elementary Russian	See RUS 101. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
RUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
RUS	201	Intermediate Russian	Systematic review of grammar. Develops vocabulary through reading and writing. Drill in aural/oral skills. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
RUS	202	Intermediate Russian	See RUS 201. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
RUS	211	Basic Russian Conversation	Intensive aural/oral drill to supplement reading and grammatical skills acquired in RUS 101, 102, 201, and 202. Required of Russian majors. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
RUS	212	Basic Russian Conversation	See RUS 211. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
RUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	311	Russian Composition and Conversation	Develops writing ability and oral expression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 202 with C or better
RUS	312	Russian Composition and Conversation	See RUS 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 202 with C or better
RUS	321	Foundations of Russian Literature	Literary movements, prose, poetry, and drama from early Kievan writings to 19th-century works of Pushkin, Lermontov, Gogol. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	
RUS	322	Great Russian Writers of the 19th Century	Surveys the great age of prerevolutionary Russian prose, including works of Gogol, Turgenev, Dostoevski, Tolstoy, and Chekhov. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	323	Modern Russian Literature and the Soviet Legacy	See also SLC 323. 20th-century Russian writers: their prose, poetry, drama; problems of the writer in Soviet and post-Soviet society. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
RUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	411	Advanced Composition and Conversation I	Improves aural discrimination and self-expression in oral and written skills, emphasizing vocabulary building. Subject materials drawn from current post-Soviet-Russian publications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 312 with C or better
RUS	412	Advanced Composition and Conversation II	See RUS 411.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 312 with C or better
RUS	417	Applied Russian Phonetics	General improvement in the student's language skills through aural/oral training in Russian phonology and an analysis of Russian orthography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites: RUS 102 with C or better
RUS	420	Russian Poetry	Development of Russian poetry from its beginnings to the present, including both native and emigre poets. Topics in criticism and the study of poetics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: RUS 312 with C or better
RUS	421	Pushkin	Pushkin's poetry, plays, and prose fiction, including Eugene Onegin, The Little Tragedies, Tales of Belkin, Queen of Spades and The Captain's Daughter. Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	

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RUS	423	Dostoyevsky	Dostoyevsky's major works of fiction, including <i>Crime and Punishment</i> and <i>Brothers Karamazov.</i> Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	424	Tolstoy	Tolstoy's major works, including War and Peace and Anna Karenina. Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	425	Chekhov	Chekhov's major works, representative short stories and major plays, including <i>The Cherry Orchard</i> and <i>Three Sisters.</i> Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	430	Russian Short Story	Detailed study of representative works of the Russian short story genre. Includes authors from both Imperial and Soviet Russia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: RUS 312 with C or better
RUS	441	Survey of Russian Culture	Interplay of artistic, social, and political forces in the development of Russian culture from the Kievan period to the present. Exclusive use of Russian language source materials.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G & H	Pre-requisites: RUS 312 with C or better
RUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
RUS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
RUS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
RUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	495	Russian for Heritage Speakers	Generates professional proficiency by developing advanced communicative and written competency in standard literary Russian.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
RUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
RUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
RUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
RUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SBS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	200	Introduction to Social and Behavioral Sciences	Overview of the social and behavioral sciences, indicating their contributions to society and emphasizing interdisciplinary integration	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	300	Interdisciplinary Approaches to Social and Behavioral Sciences	Interdisciplinary approach to the study of social life.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	301	Cultural Diversity	Socially structured differences in historical and cross-cultural perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(L or SB) & C	
SBS	302	Qualitative Methods	Basic methodological issues in the systematic application of qualitative analysis of human social life. Surveys range of qualitative methods used by social and behavioral scientists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	303	Quantitative Methods	Concepts underlying design and implementation of quantitative research methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	304	Social Statistics I	Statistical techniques of the social and behavioral sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	
SBS	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.

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SBS	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SBS	351	Population Geography	Demographic patterns. Spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: must have completed MAT 117,or119, or142, or 170,or 210 with a grade of C or greater; or be currently enrolled in one of these
SBS	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SBS	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SBS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	404	Social Statistics II: Multivariate Analysis	Analysis of variance, multiple regression, dummy variable regression, path analysis, and related topics. Computer application to problem solving.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: must have completed SBS 303 and SBS 304 with a grade of C or greater.
SBS	410	Topics in Identity/Difference	Topics which focus on race/ethnic, gender, sexual or cultural identity/difference. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	430	Topics in Power/Knowledge	Selected topics concerning the effects of political and social institutions on perceptions of politics and political culture. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	440	Family Studies	Theoretical frameworks for analyzing the development of family systems. Impact of social and economic conditions on family forms. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	447	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SBS	450	Topics in Local/Global	Examines links among social, political, economic changes at local, national, global levels. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SBS	460	Urban Studies	Studies local and global urban issues such as social geography, political economy, culture and social space, urban social diversity. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	461	Program Evaluation and Policy Research	Examines design, data collection/analysis, and political/ethical issues in planning and evaluating social programs and policies in community organizations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: AJS 302, COM 308, PSY 290, SBS 302 or SBS 303
SBS	480	Global Justice	Explores questions of justice that cross national borders, including delivery of foreign aid, immigration, and military intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
SBS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SBS	490	Senior Thesis I	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student. First part of a six-semester-hour sequence, followed by SBS 491.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	491	Senior Thesis II	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student. Second part of a six-semester-hour sequence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SBS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
SBS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
SBS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		

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SBS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SCM	300	Global Supply Operations	Resources and information to create and deliver products globally. Interfirm systems and industry supply chains. Customer, producer, and employee perspectives. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and min 56 earned hours; ACC 241, CIS 105 or CIS 220, and ECN 221 with a grade of C or greater.
SCM	301	Supply Chain Management	Examines the purchasing, materials, and logistics management areas. Presents techniques for acquiring, storing, processing, and moving material inventory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		
SCM	303	Honors Global Supply Operations	Explores the principles, concepts, and tools of supply chain management, with emphasis on how these are applied in the business world.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: Must be an Honors student; ACC 241, CIS 105, and ECN 221 with a grade of C or better
SCM	345	Logistics Management	Logistics and supply chain activities emphasizing integration of transportation, inventory, warehousing, facility location, customer service, packaging, and materials handling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisite: W.P. Carey Supply Chain Management BS student; Co- or Pre-requisite: SCM 300 or 303 with a grade of C or better or be currently enrolled or co-enrolled.
SCM	355	Supply Management	Management of the supply function, including organization, procedures, supplier selection, quality, inventory decisions, and price determination.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.	L	Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 300 or 303 with C or better
SCM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
SCM	415	Business Decision Models	Introduces quantitative tools used to aid management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: SCM 300 or SCM 303 with a grade of C or better
SCM	432	Planning and Control Systems for Supply Chain Management	Planning and control systems for product and service flows in supply chain: production planning, master scheduling, MRP, ERP, inventory management. fee	N	LAB	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.	L	Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 345 with C or better; Pre/Co-requisite: SCM 355
SCM	440	Quality Management/Measurement	Quality management and measurement, relationships with suppliers and customers, quality awards, certifications, programs, tools for process improvement and cost analyses.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; Pre-requisites: SCM 300 with a grade of C or greater or be currently enrolled.
SCM	455	Research and Negotiation	Current philosophy, methods, techniques for conducting strategic and tactical supply chain research and negotiations. Includes supplier price and cost analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 355 with a grade of C or greater
SCM	463	Global Supply Chain Management	Supply chain activities in international business with special emphasis on management of transportation, global sourcing, customs issues, and facility location in a global environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey BS or BA student; Must have completed SCM 300 with a grade of C or greater.
SCM	479	Supply Chain Strategy	Integrated supply chain strategies synthesizing supply management, production, logistics, and enterprise systems. Provides a comprehensive perspective of supply chain management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 432 with a grade of C or greater
SCM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-6	L	Pre-requisites: Must be an Honors student
SCM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		Pre-requisite: SCM 300 or SCM 303
SCM	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
SCM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
SCM	502	Operations and Supply Management	Contemporary management issues, including environmental, project, and supply chain management; new product development; quality control; TQM.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey MBA students
SCM	511	Integrated Supply Chain Management	Management of sourcing, operations, and logistics as an integrated process.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	515	Decision Models for Supply Chain Management	Decision modeling approaches for supply chain management such as optimization, simulation, and decision analysis. Emphasizes spreadsheet-oriented approaches.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	521	Supply Management and Negotiation	Selecting, developing, and executing appropriate sourcing strategies and processes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	532	Supply Chain Cost and Design Issues	Strategic design and development of supply chains. Focus on cost-management tools applied to supply chain design and supplier management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey degree seeking Graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SCM	541	Logistics in the Supply Chain	Critical issues for customer perception of supply chain performance, including inventory planning, transportation, warehousing, information technology, and integrated logistics service.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	551	Operations Planning and Execution	Managing the conversion of raw materials to finished goods, including scheduling, work-in-process inventory management, and postponement/customization.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	581	Management of Technology and Innovation	Technology life cycles, technology forecasting, new product development process, innovation teams, innovation best practices.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	586	High-Technology Project Management	Project management processes for high-technology organizations, including planning, scheduling, team development, and control.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-3		
SCM	587	Project Management	Planning, scheduling, and controlling of projects in R & D, manufacturing, construction, and services. Project selection, financial considerations, and resource management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	588	Strategic Project Management	Overview of strategic project management processes, project planning and control, project portfolio management, resource allocation, management of strategic project partners.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-3		
SCM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
SCM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	N	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
SCM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
SCM	300	Global Supply Operations	Resources and information to create and deliver products globally. Interfirm systems and industry supply chains. Customer, producer, and employee perspectives. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BS student, Global Management student with Professional or Conditional status or a Food and Nutrition Management student
SCN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SCN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SCN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SCN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SCN	480	Methods of Teaching Physics	Evaluates various approaches to the teaching of high school physics. Preparation of demonstrations and experiments. Organization of a lab. Designed for secondary school physics teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SCN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SCN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SCN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		

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SCN	530	Methods of Physics Teaching I	Inquiry approach to high school physics teaching.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SDE	510	Middle Grade Curriculum	Philosophical, historical, social foundations, and rationale for middle/junior high school education. Emphasizes the middle/junior high school student, teacher, and related philosophy, organization, and programs. Credit is allowed for only SDE 510 or 410.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	520	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	525	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	530	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	535	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SDE	410	Middle Grade Curriculum	Philosophical, historical, social foundations, and rationale for middle/junior high school education. Emphasizes the middle/junior high school student, teacher, and related philosophy, organization, and programs. Credit is allowed for only SDE 410 or 510.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SDE	420	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: SED 403 with D or better or currently enrolled
SDE	425	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: SED 403 with D or better or currently enrolled
SDE	430	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: SED 403 with D or better or currently enrolled
SDE	435	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SDE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
SED	502	Equity in Mathematics and Science Education	Introduces equity issues in science and mathematics as they relate to gender, social class, and ethnicity. Examines current research in these areas.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	2-3		
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student
SED	523	Middle School Curriculum and Organization	Overview of the organization, curriculum, and philosophy of the U.S. public school system with emphasis on the middle school.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	528	Organizing and Managing the Middle/Secondary Classroom	Planning and delivering instruction; organizing and managing classrooms; making adaptations for English language learners and students with special needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	529	Dynamics of Effective Teaching	Explores and applies new research regarding learning, motivation, and retention. Has immediate application and results for classroom teachers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	530	Introduction to Middle School Concept, Philosophy, and Curriculum	Overview of the concept, curriculum, and philosophy of the U.S. public school system with emphasis on the middle school.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	533	Middle/Secondary Instruction, Management, and Assessment	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must be a graduate student
SED	544	Creating Classroom Climates	Emphasizes classroom management and instructional strategies for establishing positive classroom climates that facilitate learning. Includes field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

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SED	548	Teaching Geometry 5-8	Practical ideas and activities for teaching informal geometry grades 5-8, based on research on how students learn geometry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	577	Issues and Trends in Secondary Education	Analyzes lay and professional reports; problems and issues in American secondary education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	711	Secondary Curriculum Development	Theories and processes of developing curriculum; evaluation of research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must have earned a C or better in SED 522 and a Y in SED 478 or SED 578
SED	722	Improvement of Instruction in the Secondary School	Evaluates the research; issues and theories related to the improvement of instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must have earned a C or better in SED 533

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SED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	501	Introduction to Effective Instruction	Introductory course for certification program in secondary education. Emphasizes developing basic classroom management, instruction, and evaluation. Includes a field assignment of at least 120 hours.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	501	Introduction to Effective Instruction	Introductory course for certification program in secondary education. Emphasizes developing basic classroom management, instruction, and evaluation. Includes a field assignment of at least 120 hours.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	520	Science Methods for Early Adolescence	Examines the interrelationships between theory and practice in teaching science.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	533	Middle/Secondary Instruction, Management, and Assessment	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	547	Teaching Mathematics in the Middle Grades (5-9)	Strategies and methodologies to teach mathematics in the middle grades (5-9).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	560	Teaching Mathematics with Technology	Strategies and methodologies to teach mathematics with technology, focusing mainly on the middle grades (5-9).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	561	Teaching Science with Technology	Strategies and methodologies for effective technology-enhanced science classrooms and improved learning. Models student-driven inquiry teaching throughout the course.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SED	564	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	576	Field Experience	Applies course content in secondary and middle school science and mathematics classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	0-3		
SED	577	Issues and Trends in Secondary Education	Analyzes lay and professional reports; problems and issues in American secondary education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: College of Teacher Education and Leadership MEd students
SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: College of Teacher Education and Leadership MEd students
SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: College of Teacher Education and Leadership MEd students
SED	579	Apprentice Teaching in Secondary Education	Apprentice teaching in secondary school classrooms. Must be taken four times for a total of 9 semester hours. Lab, field experience. Fee.	N	FLD	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SED	111	Exploration of Science Teaching	General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
SED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	321	Critical Issues in Secondary Education	Examines perspectives of critical issues in contemporary education and encourages students to think critically and to develop their own viewpoints.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Co-requisites: Secondary Education student, SED 322, RDG 323, SED 397 and one of the following: SED 480, SED 481, BIO 482, LSC 482 or MTE 482 OR PDS (Professional Development School) student as appropriate
SED	322	Classroom Leadership in Secondary Schools	Theories and practices for managing and maintaining secondary classrooms for learning; strategies for home/school communication; and leadership roles for teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Secondary Education student, SED 321, RDG 323, SED 397 and one of the following: SED 480, SED 481, BIO 482, LSC 482 or MTE 482 OR PDS (Professional Development School) student as appropriate
SED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	396	Field Experience I		N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SED	397	Field Experience II	Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Secondary Education student, SED 321, SED 322, RDG 323 and one of the following: SED 480, SED 481, BIO 482, LSC 482 or MTE 482 OR PDS (Professional Development School) student as appropriate
SED	403	Middle and Secondary School Principles, Curricula and Methods	Advanced level of development of knowledge and skills of instructional planning and methods of teaching and evaluating in the secondary school. Observation/participation required.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	403	Middle and Secondary School Principles, Curricula and Methods	Advanced level of development of knowledge and skills of instructional planning and methods of teaching and evaluating in the secondary school. Observation/participation required.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SED	405	Methods in Secondary Science Teaching	Explores effective instructional practices in the secondary science classroom and different documents that inform the field of science instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	464	Middle-School Curr/Org	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	478	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SED	478	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SED	478-W	Student Teaching in the Secondary School	The practice of teaching; relationship of theory and practice in teaching.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-12		Pre-requisites: Secondary Education student or PDS (Professional Development School) student as appropriate
SED	480	Special Methods of Teaching Social Studies	Interdisciplinary approaches; production and collection of materials.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	480	Special Methods of Teaching Social Studies	Interdisciplinary approaches; production and collection of materials.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Secondary Education BAE student; Co-requisites: SED 496
SED	481	English Teaching Methods for Secondary Schools	Instructional, organizational, and presentation methods for English in secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	482	Science Teaching Methods for Secondary Schools	Methods of instruction, organization, and assessment of science for secondary and middle grade schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SED	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	496	Field Experience	Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisites: Initial Teacher Certification Program Admission
SED	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		

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SED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SEM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-3		
SEM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-4		
SEM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	3.		If you have credit for PHY 552, or MSE 552, or NAN 552, you may not enroll in SEM 552
SEM	553	Electron Microscopy Laboratory I	Lab support for SEM 552.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	1.		
SEM	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent-beam diffraction, and electron holography. Novel developments and applications.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	3.		
SEM	555	Electron Microscopy Laboratory II	Lab support for SEM 554.	N	LAB	N	OPT	Graduate College	Center for Solid State Science	3.		
SEM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
SEM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
SEM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-4		
SEM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Center for Solid State Science	1-12		
SEM	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-15		Pre-requisites: Science & Engr of Materials PhD students

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SEM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Center for Solid State Science	1-15		Pre-requisites: Science & Engr of Materials PhD students
SES	100	Introduction to Exploration	Science and engineering of Earth, solar system, and space exploration. Experimental design, engineering design; teaming; the professions of science and engineering. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	CS	
SES	101	Earth, Solar System, and Universe I	Basic principles of geology and astronomy combined to examine the history of the universe, the solar system, and Earth. Both SES 101 and SES 103 must be taken together to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
SES	102	Earth, Solar System, and Universe II	Continuation of SES 101. Basic principles of geology and astronomy combined to examine the history of the universe, the solar system, and Earth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
SES	103	Earth, Solar System, and Universe Laboratory I	Studies astronomical and geological processes through observations and measurements. Requires field trips and evening telescopic observing. Both SES 101 and SES 103 must be taken together to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3	SQ	
SES	104	Earth, Solar System, and Universe Laboratory II	Studies astronomical and geological processes and life through observations and measurements. Requires field trips and evening telescopic observing. fee	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
SES	111	Exploration of Science Teaching	General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
SES	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
SES	210	Engineering Systems and Experimental Design	Scientific and engineering design process. Defining scientific problems, generating and evaluating engineering solutions. Computer modeling, technical writing and teaming skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: CHM 113 or PHY 121 with D or better or currently enrolled; ENG 101, ENG 105 or ENG 107 with D or better or currently enrolled; MAT 265 or MAT 270 with D or better or currently enrolled
SES	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
SES	311	Essentials of Astrobiology: Exploration for Life in the Universe	Origin and evolution of life on Earth. Strategies to explore for life in the cosmos. Possible field trips to explore regional geological analogues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: MAT 265 or MAT 270; PHY 121 or CHM 113 or BIO 188
SES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
SES	410	Senior Exploration Project I	Design and development of an Earth, solar system, or space exploration project. Conceptualization, design, development, deployment, data analysis, communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: ENG 101, ENG 105 or ENG 107; SES 311
SES	411	Senior Exploration Project II	Continuation of SES 410. Development of Earth, solar system, or space exploration project. Conceptualization, design, development, deployment, data analysis, communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: ENG 101, ENG 105 or ENG 107; SES 410
SET	540	Explosives Surety	Physical and chemical nature of explosives; detonation models; initiating systems; commercial, military, and improvised explosives; investigations; and counter measures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	560	Physical Security I	Systems engineering principles and concepts to guide the design, analysis, and implementation of protection systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	561	Physical Security II	Scientific theory behind analysis of physical protection systems. Includes probability and statistics, data collection techniques, algorithm processing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	570	Security System Instrumentation	Operating principles, limitations, and test procedures of security instrumentation and sensors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
SET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
SET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
SGS	101	Thinking Globally: The Individual and Authority	Examines the changing notions of the individual and authority over history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	

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SGS	102	Thinking Globally: Technology and Nature in World Settings	Examines changing interactions among humans and nature, geographic systems, global demography, and environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	G	
SGS	103	Contemporary Global Trends	Gives a grounding in patterns of international politics and global social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
SGS	111	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H & G	Credit is allowed for only HST 101 or SGS 111
SGS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
SGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(HU or SB) & G	
SGS	294	Special Topics		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	301	Principles of Global Studies	Presents current debates about globalization and subjects these to critical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102, 105 or 108 with C or better
SGS	303	Global Trends	Analyzes the process of globalization across boundaries through the investigation of the determinants and ramifications of globalization from the vantage of modern social sciences. Students are expected to conduct and articulate independent critical analyses toward a more in-depth understanding of this social phenomena, global history, and particularly the global economy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Minimum 30 hours; ENG 102 with C or better
SGS	304	Professional Global Career Development	Orients the student to working in global contexts and to thinking critically about careers in the global arena. Focuses on working in organizational settings distinctly global. Three modules: nation-state, corporations, and working international organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 101 and ENG 102 with a C or better
SGS	305	Research Methods	Broad introduction to social science research methodology and design, particularly the methods used to analyze global problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	L	Pre-requisites:Eng 101 (or 107) and Eng 102 (or 105 or 108) with a grade of C or better
SGS	310	Global Urban Systems	Comparative approach focuses on relationship between development of comparative urban systems and environmental impacts at local, regional, global scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites:SGS 101 or SGS 301 and SGS 103 or SGS 303 with C or better
SGS	311	Urbanization in China	Explores contemporary and future Chinese urbanization from economic, built form, and environmental perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102 with C or better
SGS	320	Mechanisms of Governance	One of the fundamental issues in the social sciences concerns the problematic attainment of social order, which is the principal aim of governance. Presents the five principal mechanisms purported to account for social order, and illustrates these by providing empirical examples of each; includes film clips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102 with C or better
SGS	341	Humanitarian Crisis and International Intervention	Focuses on political, legal, and ethical issues raised by decision about military interventions in genocide and humanitarian crisis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	343	Religion, Nationalism, and Ethnic Conflict	Examines the role of religion in national and ethnic conflict in the contemporary world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & G	
SGS	344	Facing the Past: Truth, Memory, Denial After Atrocities	The past has never been so present as it is today. Over the last two decades, the world has shown an increasing interest in uncovering the hidden and forgotten histories of state-sponsored atrocities and acknowledging the fate of victims and survivors. Studies this movement for the recovery of truth, memory, and moral responsibility includes a wide range of actors and takes a number of different forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	381	Modern Southeast Asia	Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Singapore, Brunei, Indonesia, and Philippines since 1750: imperialism, revolution, and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G & H	
SGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SGS	441	Religion and Global Politics	Explores the nature and role of religion in international politics in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	G	
SGS	442	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	454	Gender, Culture, and Development	Economic, cultural, and sociopolitical contexts for understanding women's roles related to health, family, work, education, and politics in developing countries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(L or SB) & G	May not enroll in SGS 454, if received credit for WST 457
SGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
SGS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
SGS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6	L	Pre-requisites: Must be an Honors student
SGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	497	Honors Colloquium		N	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		
SGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-7		
SGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
SHS	101	American Sign Language I	Basic receptive/expressive conversational skills; basic grammar and syntax rules. Orientation to deafness and deaf culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	102	American Sign Language II	Further development of receptive/expressive conversation skills in ASL; finger spelling. Continued exploration of deaf culture.	N	LEL	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: SHS 101 with C or better; taken within the past two years
SHS	105	Introduction to Human Communication Disorders	Introduces hearing, language, and speech problems in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SHS	201	American Sign Language III	Continued development of fluency in ASL with emphasis on more abstract concepts and the ability to narrate events.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: SHS 102 with C or better and taken within the past two years
SHS	202	American Sign Language IV	Further development of fluency in ASL with emphasis on literature, folklore, and signing narratives with multiple characters.	N	LEL	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: SHS 201 with C or better and taken within the past two years
SHS	250	Introduction to Phonetics	Introduces English phonetics with emphasis on phonetic transcription, articulation, phonology, and disorders of speech.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		Pre-requisites: Must be an Honors student
SHS	310	Anatomical and Physiological Bases of Speech	Noncadaveric study of anatomical systems that underlie human speech and language, including respiration, phonation, articulation, and related nervous system processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	311	Physical and Physiological Bases of Hearing	Studies the physical characteristics of sound and of the structure and function of the human auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	350	Brain Memory and Language	Covers memory and language and their associated brain areas, and the resulting behavioral consequences of injury and disease.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	367	Language Science	Normative aspects and integration of language structure, comprehension, and production in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.	SB	
SHS	375	Speech Science	Normative aspects of speech, hearing, and language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SHS	376	Psychoacoustics	Introduces acoustics, cochlear anatomy and physiology, and the perception of sound.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	401	Introduction to Audiology	Introduces hearing disorders and the purposes and procedures for basic clinical tests of auditory function. Credit is allowed for only SHS 401 or 501.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	402	Clinical Methods and Treatment of Communication Disorders	Principles and techniques for planning speech and language intervention, including observation experiences.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	431	Developmental Speech Disorders	Introduces the nature of articulation, fluency, resonance, and voice disorders in childhood.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	450	Observation	Opportunity to obtain observation experience at the ASU Speech and Hearing Center or at external sites.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	465	Speech and Language Acquisition	Speech and language development in the normal child.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.	SB	
SHS	470	Developmental Speech and Language Disorders	Introduces the nature of speech and language disorders in children.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	485	Acquired Speech and Language Disorders	Introduces acquired speech and language disorders across the lifespan.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		Pre-requisites: Must be an Honors student
SHS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6	L	Pre-requisites: Must be an Honors student
SHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	496	Aural Rehabilitation	Approaches to aural rehabilitation of children and adults. Introduces educational audiology and assistive listening devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		
SHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-7		
SHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-3		
SHS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		Pre-requisite: Must be a student in either MS Communication Disorders or PHD Speech And Hearing Science.
SHS	501	Introduction to Audiology	Introduces hearing disorders and the purposes and procedures for basic clinical tests of auditory function. Credit is allowed for only SHS 501 or 401.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	502	Basic Audiometry	Covers the bases, purposes, rationales, and procedures for the core clinical tests of auditory function in adults and children.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	504	Amplification I	Operation, electroacoustic measurement, selection, and prescriptive fitting of amplification devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	505	Survival Sign Language	Facilitates effective manual and alternative methods of communication with deaf individuals in clinical settings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	508	Pediatric Audiology	Emphasizes the principles and procedures for early identification and management of congenital and early-onset hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	510	Amplification II	Verification and validation of hearing aid performance, benefit, and satisfaction. Fitting considerations for pediatric and geriatric populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	511	Auditory Perception by the Hearing Impaired	Psychophysical methods and behavioral aspects of hearing, with an emphasis on the perceptual consequences of sensorineural hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	512	Topics in Management of Medical Aspects of Speech-Language Pathology	Focuses on varying topics in management of medically based speech and language disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	513	Neurophysiology of the Auditory System	Focuses on the neurophysiology of the normal auditory system and on changes associated with hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		

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SHS	515	Instrumentation and Calibration	Electronic instruments used to produce, modify, and measure characteristics of sound. Measurement standards and methods for calibration of audiologic equipment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	516	Auditory Evoked Potentials	Electrophysiologic assessment of the peripheral and central auditory nervous system. Lecture, lab.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	517	Balance Assessment	Clinical analysis and treatment of balance disorders and dizziness.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	518	Auditory Rehabilitation	Study and clinical application of assistive technology and rehabilitative services for managing the effects of hearing impairment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	519	Auditory Pathologies and Disorders	Familiarizes students with major diseases, pathologies, and disorders of the human auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	520	Otoneurologic Applications in Audiology	Advanced otologic, neurologic, and audiologic approaches in the differential diagnosis of peripheral and central disorders of the auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	521	Auditory Aging	Focuses on aging and related effects on the auditory system and audition.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	522	Hearing Conservation	Examines the prevention, identification, physiological effects, and management of hearing loss due to noise exposure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	524	Counseling in Communication Disorders	Theories of counseling emphasizing the psychological and emotional impact and management of individuals with communication disorders and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2-3		
SHS	525	Audiology Practice Management	Business practice issues, quality assurance, and professional ethics for the practicing audiologist.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	545	Speech Perception by the Hearing Impaired	Focuses on the perception of speech by normal-hearing and hearing-impaired listeners.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	552	Physiological Measures of Auditory Function	Focuses on the measurement of otoacoustic emissions and acoustic immittance.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	555	Cochlear Implants	Covers the research and clinical aspects of cochlear implantation with a focus on the principles of speech coding strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	565	Speech and Language Acquisition	Speech and language development in the normal child.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	566	Psychology of Language	Psycholinguistic study of the production and comprehension of language across the lifespan.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	567	Neural Bases of Communication Disorders	Neuroscience and its application to matters of normal and disordered communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	570	Communication Disorders and Multicultural Populations	Studies racial and ethnic biases and the communication behaviors and disorders in various cultural groups.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	571	Augmentative Communication and Language Programming	Focuses on individuals across the age span who are unable or who are at risk for being unable to communicate with spoken language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	572	Language Assessment and Intervention in Infants and Toddlers	Focuses on the birth to 3-year-old population who are at risk for or who have communication and language disabilities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	573	Language Assessment and Intervention with School-Age Populations	Focuses on later language development, linguistic demands of academic settings, assessment and intervention strategies for older children and adolescents.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	574	Management of Low-Incidence Speech Disorders	Focuses on assessment and intervention of people with voice, fluency, and craniofacial disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	575	Aphasia and Related Neurogenic Language Disorders	Assessment and treatment of acquired neurolinguistic impairment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	576	Neuromotor Speech Disorders	Evaluation and treatment of the dysarthrias and apraxia of speech. Emphasizes acquired adult disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	578	Disorders of Voice	Communication disorders related to dysfunction of the phonatory and resonance systems of voice production, assessment, and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	579	Feeding and Swallowing Disorders Across the Lifespan	Focuses on individuals across the age span who have feeding and/or swallowing disorders. Presents assessment and treatment strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	580	Clinical Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		
SHS	581	Right Hemisphere Syndrome, Traumatic Brain Injury, and Dementia	Studies the nature, characteristics, and clinical management of cognitive and communicative impairments accompanying right hemisphere damage, TBI, and dementia.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	582	Differential Diagnosis of Communication Disorders	Procedures for assessing speech/language disorders in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	584	Clinical Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		

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SHS	585	Articulation and Phonology: Assessment and Intervention	Assessment and treatment of developmental articulation and phonological disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	586	Language Sampling Methods in Speech-Language Pathology	Focuses on the use of language sampling and analyzes techniques to assess children's language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	587	Language Assessment and Intervention with Preschool Populations	Focuses on preschool language disorders and assessment and intervention strategies for preschool children.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	588	Spanish Language Acquisition	Examines Spanish language acquisition in children and adults in the context of monolingual and bilingual language acquisition.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	589	Audiology Grand Rounds	Grand Rounds bridges clinical and academic knowledge through case studies, application of emerging research, and clinical workshops.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	596	Aural Rehabilitation	Approaches to aural rehabilitation in children and adults. Introduces educational audiology and assistive listening devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-15		
SHS	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-15		
SHS	101	American Sign Language I	Basic receptive/expressive conversational skills; basic grammar and syntax rules. Orientation to deafness and deaf culture.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		

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SLC	150	Introduction to East Asian Culture	Introduces the cultures of China, Japan, and Korea.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
SLC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SLC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	201	Introduction to Linguistics	Examines the nature and diversity of world languages, linguistic structures and functions of language, language variation, pragmatics, and language acquisition.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	202	Introduction to Literary and Cultural Theory	Interdisciplinary approaches to understanding culture and cultural production (literature, film, visual art, performance) in different countries.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	323	Survey of Literature of the Soviet Era in Translation	Surveys main literary movements, prominent authors, most significant works of prose, poetry, and drama of the Soviet period, 1917-1991.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
SLC	385	Career Development for Language Majors	Theoretical and practical aspects of career planning and development; research focus on language-related careers.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 101 or ENG 107 with D or better; ENG 102 or ENG 108 with D or better or currently enrolled
SLC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	400	Linguistics	Introduces the analysis of language and its use in social contexts. Topics: morphology, phonology, pragmatics, semantics, syntax, and variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	SB	Pre-requisite: Junior academic level
SLC	401	Translation Theory and Practice	Translation theories and professional practices and ethics; bibliography, computer technology, and sample texts for natural and social sciences and humanities.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	415	Bilingualism and Languages in Contact	Analyzes linguistic aspects of bilingualism, e.g., pidgins and creoles, code-switching, and other contact phenomena; simultaneous/sequential bilingual language acquisition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 400 with D or better or currently enrolled
SLC	420	Foreign Literature in Translation	Not for language majors (except in Asian languages and Russian); open to language majors as a related-area course. Graduate students by permission.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
SLC	421	Japanese Literature in Translation	Readings selected by theme or genre or period from various works of Japanese literature in English translation. May be repeated when topics vary. Graduate students by permission.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
SLC	440	Film Theory and Criticism	Examines the major positions and issues in film theory from an historical perspective. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Prerequisite(s): ENG 102, 105 or 108 with C or better; FMS 100 with C or better; Credit is allowed for only FMS 461 or SLC 440
SLC	461	Feminist Political Writing in Contemporary Europe	Examines the discourse of gender-politics in Central Eastern Europe before and after Soviet hegemony.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 200 with D or better or currently enrolled; ENG 101 and 102 (or 105) OR ENG 107 and 108 with C or better
SLC	472	Literature and Politics in Pre- and Post-Communist Europe	Interdisciplinary examination of the cultures of Eastern Europe from WWI to the present.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 200 with D or better or currently enrolled; ENG 101 and 102 (or 105) OR ENG 107 and 108 with C or better
SLC	476	Literature and Film in 20th-Century Eastern Europe	Evaluates literary texts and films as a massive propaganda machine of the totalitarian state.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	479	Introduction to Teaching Foreign Languages	Introduces teaching methodologies, language learning, and current best practice in teaching foreign languages in U.S. middle and high schools.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	480	Methods of Teaching Foreign Languages	Teaching foreign languages and literatures at secondary and college levels. Does not meet the Liberal Arts and Sciences General Studies requirement for humanities and fine arts. Required for admission to SED 478.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	481	Technical and Scientific Translation	Resources, practices, strategies, and lexicon for translation of professional texts in subjects such as engineering, architecture, agriculture, computer technology, electronics, and physical and biological sciences.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SLC 401 completed with D or better or currently enrolled
SLC	482	Business and Financial Translation	Resources, practices, strategies, and lexicon for translation of professional texts in subjects such as economics, finance, insurance, management, marketing, accounting, advertising, and real estate.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SLC 401 completed with D or better or currently enrolled
SLC	483	Medical and Legal Translation	Resources and strategies for translation of professional texts in subjects such as medicine, nursing, public health, criminal justice, and international law.	N	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	485	Problems of Literary Translation	Theory and practice with emphasis on application through individual translation projects. May be repeated for a total of 6 semester hours.	N	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 401 with D or better or currently enrolled
SLC	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Honors students only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SLC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SLC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SLC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SLC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SLC	515	Second-Language Acquisition	Discusses and applies theories of second-language acquisition.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 400 with D or better
SLC	525	Second-Language Acquisition Trends and Issues in Foreign Language Teaching	Advanced methods seminar, designed for experienced teachers.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SLC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLV	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	304	Computational Linguistics of Slavic Languages	Information technology and Slavic languages, including Web design, digitalized resources, information retrieval, math/statistical analysis, and PERL.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	CS	
SLV	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SLV	440	History of Slavic Languages	Comparative evolution of East Slavic, West Slavic, and South Slavic languages from the earliest record to the standardizing of national languages in the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	SB	
SLV	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLV	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SLV	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SLV	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SLV	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SLV	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	Students may not sign up for SOC 101 who have received a D or better in SOC 301.
SOC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	220	Sport and Society	Examines sports in American society as a source of socialization and an institution where gender, race/ethnicity, and class interact.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	264	Gender and Society	Sociological analysis of the development, nature, and consequences of gender in contemporary society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	(L or SB) & C	Pre-requisite: ENG 101 with C or better
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
SOC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisites: Must be an Honors student
SOC	301	Principles of Sociology	Intensive and critical analysis of the concepts of sociology. Credit is allowed for only SOC 301 or 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	Students may not sign up for SOC 301 who have received a D or better in SOC 101.
SOC	312	Sociology of Adolescence	Cultural values and the social processes that help explain the development of the phenomenon of modern adolescence, including investigation of adolescent subcultures and cross-cultural references.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	321	Sociology of Work	Social and cultural analysis of industry. Occupational roles, status, and social participation of workers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	331	Environmental Sociology	Analyzes human organizational responses to population growth, technological change, and environmental stressors on both a national and global scale.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	332	Urban Sociology	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	333	Population	Global trends in population growth, composition, and distribution; theories, policies, and impact of population trends on environmental quality and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	334	Technology and Society	Development of technology in relation to society, work, science, the environment, public health, and cultural values related to social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	

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SOC	340	The Sociology of Deviance	Sociological analysis of stigmatized behaviors and conditions, including the causes, effects, and management of stigma.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	341	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G & H	
SOC	360	Sociological Psychology	Interaction patterns between the sociocultural order and individuals; socialization process; norms, roles, and statuses; collective behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	363	Men and Masculinity	Sociological analysis of how masculine identity is defined, negotiated, and variously constructed depending upon class, ethnicity, age, and sexual orientation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	365	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	375	Contemporary American Jewish Identities	Analyzes the complexity and diversity of the contemporary American Jewish community in religious and secular affairs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	(HU or SB) & C	
SOC	390	Social Statistics I	Descriptive and inferential statistical methods for analysis of social data. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	CS	
SOC	391	Research Methods	Methods of social science research, including the fundamental assumptions underlying research, critique, research design, data collection, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	Prerequisites: SOC 101 (or SOC 301 or CDE 232) and SOC 390. Credit is allowed for only FAS 361 or SOC 391
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	415	The Family	Family considered from the institutional viewpoint; its historical development and its adaptation to a changing culture; the family system in many cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	416	Marriage Problems in Contemporary Society	Marital and family problems in today's society from the viewpoint of personal and cultural adjustment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	417	Family Violence	Current research and theories about domestic violence including child maltreatment, spousal aggression, and courtship violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	418	Aging and the Life Course	Social aspects of aging. Theoretical and methodological perspectives and problems of aging such as life satisfaction, retirement, and adjustment to role loss.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	420	Sociology of Religion	Interrelationship of culture, society, and religion; religion and social stratification; religious, economic, and political institutions; social change and religion. Emphasizes American society and institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	423	Social Class and Stratification	Classical and contemporary theories about who gets what and why. Examines social and economic inequalities by class, gender, and race/ethnicity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	424	Women and Health	Women as healthcare workers and issues of health, illness, and healthcare for women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	427	Sociology of Health and Illness	Social aspects of illness and sociological analysis of the healthcare system and its practitioners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	429	Sociology of Law	Examines law as an institution; its origins, operations, and consequences. Emphasizes contemporary legal issues and problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	433	Applied Demography	Science of population analysis. Covers techniques for measuring fertility, mortality, migration, and population composition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	446	Sociology of Crime	Process of criminalization, exploring the behavior of the definers of crime, and the behavior of those defined as criminals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	448	Epidemics and Society	How epidemics occur; how they are perceived in society; how epidemics affect society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	451	Comparative Sociology	Cross-cultural study of basic social institutions; the methodology of cross-cultural research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	474	African Americans in Modern Society	Social and cultural heritage of black Americans; achievements and current trends.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
SOC	483	History of Social Thought	Social thought in human culture. Background of modern sociology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	486	Contemporary Theory	Contemporary issues and crises in social theory with major focus on particular theorists. Ideological factors in theory, philosophical issues, the nature of theory and its relationship with methodology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	

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SOC	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisites: Must be an Honors student
SOC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
SOC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
SOC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
SOC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	501	Practicum in Survey Research	Research practicum in survey fieldwork, analysis, and reporting in the Phoenix Area Study.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	502	Practicum in Survey Research	Continuation of SOC 501.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	503	Sociology as a Profession I	Becoming and working as a sociologist, including how to write a vita, choose a thesis topic, or find dissertation data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	504	Sociology as a Profession II	Becoming and working as a sociologist, including how to write a vita, choose a thesis topic, or find dissertation data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	505	Applied Regression Analysis	Multiple linear regression topics relevant to sociological data analysis. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	507	Social Statistics IIA: Categorical Data Analysis	Logistic regression and related topics relevant to categorical data analysis in sociology. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	508	Social Statistics IIB: Structural Equation Analysis	Structural equation models using LISREL and other computer packages. Topics include multiple group analyses and ordinal endogenous variable models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	509	Social Statistics IIC: Event History Analysis	Proportional hazards models and other methods for analyzing longitudinal data and establishing hazard rates of events for exploratory variables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	512	Secondary Data Analysis	Works with existing data to produce a publishable article.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	515	Studies of the Family	Current developments in the study of marriage and the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	516	Family Demography	Current developments in the study of family demography.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	519	Graduate Medical Sociology	Current developments in medical sociology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	523	Social Stratification	Overviews significant themes, issues, and bodies of work in the field of social stratification, a fundamental topic of sociological inquiry.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	533	Demographic Methods	Emphasizes methods and techniques in demographic analyses such as life tables.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	585	Sociological Theory	Analyzes major sociological theories, from classical to contemporary.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	588	Methodological Issues in Sociology	Basic methodological issues in the study of human social life. Emphasizes a limited number of key issues and approaches to research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

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SOC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB	
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	210	Sociology of Murder	Sociological perspectives on various forms of murder and types of murderers. Also considers forms of punishment for murder.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB	
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB & C	
SOC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	301	Principles of Sociology	Intensive and critical analysis of the concepts of sociology. Credit is allowed for only SOC 301 or 101.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	324	Work and the Workplace	Historical and comparative examination of changes in the structure and meaning of work and current shifts in people's work lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB & H	
SOC	328	Migration	Introduces the definition and analysis of migration in all forms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB & G	
SOC	332	The Modern City	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3		Pre-requisites: Must have taken SOC 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.
SOC	340-W	Sociology of Deviant Behavior	Sociological analysis of stigmatized behaviors and conditions, including the causes, effects, and management of stigma.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	341-W	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	L or SB	
SOC	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB & C	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3	SB & G & H	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3-4	(HU or SB) & G	
SOC	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	360	Sociological Psychology	Interaction patterns between the sociocultural order and individuals; socialization process; norms, roles, and statuses; collective behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	364	Popular Culture	Studies the social approaches to popular culture, focusing on the function of various forms (literature, film, theatre, and music).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	365-W	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	366	Film and Society	Studies the social approaches to film as an art form, mass medium, and ideological construct.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SOC	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	400	Perspectives on Aging	Broad overview of gerontological issues; e.g., physical aging, retirement, living options, caregiving, theoretical background, death.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	418-W	Aging and the Life Course	Examines aging as a process of change and adaptation over the lifespan, patterned by social, cultural, and historical forces.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	419	Organizations and Technological Change	Explores the increasing impact of information technology on corporate, governmental, and private organizations. May involve fieldwork.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SOC	426	Social Inequality	Examines stability and change in social inequality based on age, class, ethnicity, gender, and race.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	443	Sociology of Corporations	Examines corporations as social institutions and the implications of their status as a legal person on politics, culture, and economy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	456	Political Sociology	Social factors associated with voting; nature and structure of the electorate and political parties and the nature of national and international power structure.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	457	Global Social Movements	Examines how groups mobilize across borders to pursue social goals, including equality, justice, peace, and salvation in a global context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	486	Contemporary Theory	Contemporary issues and crises in social theory with major focus on particular theorists. Ideological factors in theory, philosophical issues, the nature of theory and its relationship with methodology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	492	Honors Directed Study		N	THE	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SOC	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
SOC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		

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SOC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change. Credit is allowed for only SOC 101 or 301.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SOC	220	Sport and Society	Examines sports in American society as a source of socialization and an institution where gender, race/ethnicity, and class interact.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	332	Urban Sociology	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
SOC	341	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
SOC	365	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	390	Social Statistics I	Descriptive and inferential statistical methods for analysis of social data. Computer applications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SOC	416	Marriage Problems in Contemporary Society	Marital and family problems in today's society from the viewpoint of personal and cultural adjustment.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
SOC	417	Family Violence	Current research and theories about domestic violence including child maltreatment, spousal aggression, and courtship violence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	420	Sociology of Religion	Interrelationship of culture, society, and religion; religion and social stratification; religious, economic, and political institutions; social change and religion. Emphasizes American society and institutions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
SOC	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
SOS	100	Introduction to Sustainability	Introduces basic concepts, global trends, and local responses, philosophical, ethical, and cultural dimensions.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	110	Sustainable World	Lays the groundwork for understanding the fundamental geological, biological, and social processes that gave rise to the world we live in and continue to maintain its viability for human life.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOS	111	Sustainable Cities	Introduces technological, social, and cultural principles and innovations for cities under the notion of sustainability and sustainable development within the global, regional, and local contexts.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.	(HU or SB) & G	
SOS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	320	Society and Sustainability	Establishes an understanding of the human, social, and cultural dimensions of sustainability from multi- and interdisciplinary perspectives and at a variety of spatial and temporal scales.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.	L or SB	Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	321	Policy and Governance in Sustainable Systems	Explores the wide array of political questions that are raised when we view the Earth's environment as an integrated, global system.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	322	International Development and Sustainability	Historical roots of the idea of development; economic theories of growth and their implications for sustainability; interrelationship among population growth, food security, poverty, inequality, urbanization, technological change, international trade, and environmental change at local, regional and global scale.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	323	Sustainable Urban Dynamics	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	324	Sustainable Energy, Materials, and Technology	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better
SOS	325	The Economics of Sustainability	Applies economic principles to the allocation of environmental goods and services, external environmental effects, and environmental public goods; decision-making under uncertainty, adaptation to and mitigation of environmental change.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	326	Sustainable Ecosystems	How human activities and management practices alter biodiversity, ecosystem functioning, and the provisioning of ecosystem services; use of economic and other social science perspectives to estimate the value of ecosystem services; evaluation of options for achieving the sustainable flow of services from ecosystems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites: SOS 110 and SOS 111 (or PUP 190) with C or better
SOS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	School of Sustainability	School of Sustainability	3.	SB	Pre-requisites: Students who have credit for ASM 414, or SSH 414, may not enroll in SOS 414. Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
SOS	424	Dynamic Modeling in Social and Ecological Systems	Introduces the development and use of dynamic mathematical models to study social and ecological phenomena.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	4.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better; Students who have credit in BIO 424 or ASM 424, may not enroll in SOS 424
SOS	430	Sustainable Economic Development and Social Transformation	A clustered learning network on the application of sustainability principles to the evaluation of economic development strategies at the national, regional, and local levels, using case studies. May be repeated once for credit.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	431	Resilience and Sustainability	A clustered learning network on the application of resilience analysis to the evaluation and management of the sustainability of coupled social-ecological systems using case studies. May be repeated once for credit.	N	SEM	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	433	Sustainable Water Use	A clustered learning network on the problem of water scarce regions, includes insights from hydrology, engineering, biology, economics and public policy. May be repeated once for credit.	N	SEM	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	492	Honors Directed Study		Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-6		
SOS	493	Honors Thesis		N	LEC	N	Z1	School of Sustainability	School of Sustainability	1-6	L	Pre-requisites: Must be an Honors student
SOS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	499	Individualized Instruction		Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-3		
SOS	510	Perspectives on Sustainability	University-wide course covering basic perspectives on sustainability. Uses case studies; faculty and students from engineering, architecture, social sciences, and natural sciences exchange ideas on the major challenges faced in forming a sustainable future at the local, national, and global levels.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOS	511	Quantitative Methods in Sustainability	Provides a sense of when, where, and how quantitative methods are used in studying questions related to sustainability; a road map for furthering quantitative skill sets; and opportunities to refresh and build some basic mathematical skills from selected topics in differential and integral calculus, linear algebra, and probability and statistics that will be required for further study.	N	LEL	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	512	Sustainable Resource Allocation	Microeconomic principles of resource allocation applied to environmental goods and services, external environmental effects and environmental public goods; decision making under uncertainty, adaptation to and mitigation of environmental change.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	513	Science for Sustainability	Carbon cycle, nutrient cycles, carbon and nutrients in the oceans, climate change, oxygen and ozone, solid waste pollution, urban air pollution.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	514	Human Dimensions of Sustainability	Concepts and definitions of the human dimensions of sustainability; the role of attitudes and values in shaping sustainability goals, practices, and programs; the diversity of values and socio-cultural contexts relating to sustainability; bottom-up and top-down sustainable policy development, social data collection methodologies.	N	SEM	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	515	Industrial Ecology and Design for Sustainability	The conceptual, ethical, and practical challenges in the design, manufacture, and life cycle performance of products; environmental evaluation via materials flow analysis and life cycle assessment; global economic, environmental, cultural, and social aspects of competitive and functional product development and manufacture.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	516	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		You may not enroll in SOS 516 if you have credit in GLG 547, or PAF 547, or BIO 515
SOS	530	International Development and Sustainability	Historical roots of the idea of development; economic theories of growth and their implications for sustainability; interrelationship among population growth, food security, poverty, inequality, urbanization, technological change, international trade, and environmental change at local, regional and global scale. Credit is allowed for only SOS 530 or SOS 322.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	532	Sustainable Urban Dynamics	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:May not enroll in SOS 532, if credit received for ASB 533
SOS	533	Sustainable Water	Hydrological, legal, political, and ecological implications of alternative water management strategies; effect of institutional and regulatory frameworks; changes in water demand and supply due to human (population growth, economic changes) and natural (drought, climate change) factors	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	534	Sustainable Energy and Material Use	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanics; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	535	Sustainable Ecosystems	How human activities and management practices alter biodiversity, ecosystem functioning and the provisioning of ecosystem services; use of economic and other social-science perspectives to estimate the value of ecosystem services; evaluation of options for achieving the sustainable flow of services from ecosystems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	550	Introduction to Sustainability and Organizational Strategies	Focuses on organizational strategies for technology companies competing in a global environment. Strategic and tactical decision implications of a life cycle value proposition; modeling and analysis for strategic decisions about product/service bundles and delivery mechanisms; innovation; technology, including the linkages to the firm strategy and empirical evidence; supply, demand, and value chain; research of laws, guidelines and international agreements.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	551	Water Policy and Management	Covers water policy and management focused on Arizona. Useful to anyone looking for a general background on water issues in Arizona or considering a career in water resources and environmental engineering, planning, or public policy. Divided into three major sections: the history of water resources development and hydrology of Arizona; water management in Arizona; and an examination of current issues and controversies.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		You may not enroll in SOS 551 if you have credit in CEE 544
SOS	552	Advanced Earth Systems Engineering and Management	Advanced introduction to earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		

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SOS	559	Sustainable Technology and Management Capstone	Provides opportunity to demonstrate comprehension of the fundamental aspects that have been introduced in the classroom and the synthesis of these fundamental aspects into a demonstrable project that can be presented and defended.	N	STO	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	579	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	School of Sustainability	School of Sustainability	1-12		
SOS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-15		
SOS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	School of Sustainability	School of Sustainability	1-15		
SP	431	Prose of Golden Age		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	107	Spanish for International Professions I	Accelerated program alternative to SPA 101, 102 sequence. Functional approach to needs of international professions. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.		
SPA	111	Fundamentals of Spanish	Primarily for students with two years of high school Spanish who need review to enter second-year study. Credit is allowed for only SPA 111 or both SPA 101 and 102. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		You may not sign up for SPA 111 if you have received a D or better in SPA111,201,202,203,204,311,312,313,314,315,316,325,412
SPA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Prerequisite: Must be a freshmanwith 25 or less total earned hours
SPA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	203	Intermediate Spanish for Bilinguals	For Spanish-speaking students, in lieu of SPA 201. Composition, literature, conversation, grammar fundamentals. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Students may not enroll in SPA 203 if they have received a D or better in SPA201,202,204,311,312,313,314,315,316,325,412
SPA	204	Intermediate Spanish for Bilinguals	For Spanish-speaking students, in lieu of SPA 202. Composition, literature, conversation, grammar fundamentals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 204 if you have received a D or better in SPA202,311,312,313,314,315,316,325,412
SPA	207	Spanish for International Professions II	Continuation of SPA 107, alternative to SPA 201, 202 sequence. Expansion of communicative proficiency in specific areas of international professions. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.	G	

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SPA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SPA	311	Spanish Conversation	Designed primarily for nonmajors to promote vocabulary building and communicative expression in Spanish through discussions based on cultural readings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	312	Spanish Conversation	See SPA 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	May not enroll in SPA 313 if received a D or better in SPA 314,315, 316,325,412
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not sign up for SPA 314 if they have received a C or better in SPA 412; Pre-requisite: SPA 313 or 316 with a C grade or better
SPA	315	Spanish Conversation and Composition for Bilinguals	Emphasizes comparing standard Spanish with regional Southwest Spanish. May be taken in lieu of SPA 313 and 314.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Credit is allowed for only SPA 313, 314, 315, 316, or 412
SPA	316	Spanish Conversation and Composition for Bilinguals	See SPA 315.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		May not enroll in SPA 316, if received a D or better in SPA 314, SPA 412; must have completed SPA 315 with a D or better or in progress
SPA	319	Business Correspondence and Communication	Organization and presentation of clear, effective business communications; vocabulary applicable to modern business usage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:SPA 314 or SPA 316 with a grade of D or better, or enrolled
SPA	325	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 313 or SPA 315 with a grade of D or better or in progress
SPA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	400	Introduction to Spanish Linguistics	Introduces the discipline and methods of linguistics through the study of Spanish data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better, or in progress
SPA	412	Advanced Conversation and Composition	Oral and written Spanish communication skills, with particular attention given to developing fluency and facility. Required of majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: SPA 314 or SPA 316 with D or better
SPA	413	Advanced Spanish Grammar	Intensive analysis of the Spanish language. Required of teaching majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:SPA 314 or SPA 316 with a grade of D or better or enrolled
SPA	417	Spanish Phonetics and Phonology	Introduces the theory and practice of Spanish phonetics and phonology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better, or in progress
SPA	420	Applied Spanish Linguistics	Applies linguistic principles to the teaching of Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites:Must have completed Fla 400(or equivalent) with a grade of C or greater or be currently enrolled;& completed SPA 412 or in progress
SPA	421	Spanish in the Southwest	Discussion and linguistic analysis of Southwest Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or SB) & C	Pre-requisites: SPA 412 with C or better
SPA	422	Spanish Lexicology and Lexicography	Explores the linguistic theory and methodology related to the defining of meanings of words in Spanish dictionaries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better or currently enrolled
SPA	425	Spanish Literature	Surveys Spanish literature from its beginning to 1700.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	426	Spanish Literature	Surveys Spanish literature from 1700 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	427	Spanish American Literature	Surveys major works, figures, and movements from Colonial period to 1880.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	428	Spanish American Literature	Surveys major works, figures, and movements from 1880 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L & G	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	429	Mexican Literature	Selected readings from pre-Columbian writers/poets (e.g., Macuilxóchitl) through the novel of the Revolution to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	431	Prose of Golden Age		N	LEC	N	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	434	Drama of the Golden Age	Dramatic works of Lope de Vega, Calderón de la Barca, and their contemporaries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	435	Cervantes-Don Quijote	Don Quijote and the development of the novel.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	454	19th-Century Spanish American Narrative	Principal works in the novel, short story, narrative fiction, and narrative (Gauchesque) poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	456	20th-Century Spanish American Fiction	Major works and movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	464	Mexican American Literature	Representative literature in Spanish and English by Mexican Americans, emphasizing sociocultural as well as literary values.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(HU or SB) & C	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled

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SPA	471	Civilization of the Spanish Southwest	Political, intellectual, social, economic, and artistic development of the Spanish-speaking people of the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & C	Pre-requisites:SPA 314, or 316, with a grade of D or better or currently enrolled
SPA	472	Spanish American Civilization	Growth of the institutions and cultures of Spanish American people.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisites:SPA 314 or 316 with a grade of D or better or currently enrolled
SPA	473	Spanish Civilization	Political, intellectual, social, economic, and artistic development of the Spanish nation from its origin to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(HU or SB) & G	Pre-requisites:SPA 314 or 316 with a grade of D or better or currently enrolled
SPA	474	Mexican Culture	Examines diverse aspects of Mexican culture since the 1910 Revolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	485	Mexican American Short Story	Critical study of contemporary short stories by Mexican American authors, with emphasis on their Spanish-language writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	486	Mexican American Novel	Social and literary contexts of representative novelists, emphasizing their Spanish-language writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	487	Mexican American Drama	Representative dramatic works, with emphasis on the history and development of this genre from its regional origins to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 325 with a grade of D or better or currently enrolled
SPA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
SPA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SPA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SPA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SPA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	534	Spanish Drama of the Golden Age	Analyzes principal works and figures of Golden Age Drama (Cervantes, Lope de Vega, Calderón, Tirso de Molina, Moreto, Ruiz de Alarcón) with current theater theory and comedia performance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	536	Generation of 1898	Works of Unamuno, Baroja, Azorín, and their contemporaries, studied against the ideological background of the turn of century in Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	537	Women in Spanish Literature	Major female writers and their texts from Spanish literature (María de Zayas, Ángela Grassi, Concepción Arenal, Emilia Pardo Bazán, Carmen Laforet, Paloma Pedrero) interpreted via current feminist and other critical theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	538	Mexican American Women Writers	Major female figures and works in Spanish or translation by contemporary writers (Zamora, Castillo, Corpi, Anzaldúa, L.D. Cervantes, D. Chávez, Duarte, Cisneros) interpreted via current feminist and other critical theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	540	History of the Spanish Language	Analyzes and discusses the development of Spanish from Vulgar Latin to the present day.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	541	Spanish Language in America	Discusses and analyzes various regional and social varieties of Spanish in the Americas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	542	Studies in the Spanish of the Southwest	Examines bilingualism and the social and regional dialects of Spanish in the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	543	Structure of Spanish	Analyzes and discusses data on selected topics in Spanish morphology, semantics, and syntax.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	544	Spanish Phonology	Surveys problems of Spanish phonology within the context of recent phonological theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	545	Concepts of Literary Criticism	Aims and methods of modern literary scholarship. Discusses major theories of literary analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	552	Studies in Mexican American Film	Major figures and films by contemporary filmmakers (Sylvia Morales, Cheech Marín, Gregory Nava, Lourdes Portillo, Roberto Rodríguez, Evelina Fernández) interpreted via critical film theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

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SPA	555	Spanish American Modernism	Principal works and figures of literary modernism, 1880-1920, with emphasis on international literary context of the movement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	557	Contemporary Spanish American Poetry	Major works and problems in contemporary poetry and poetics, with emphasis on Paz, Parra, Cardenal, and new poetry since 1960.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	560	Medieval Spanish Literature	Major figures and works of the Middle Ages in Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	561	Golden Age Spanish Prose Fiction	Major figures and works of the 16th and 17th centuries, with emphasis on the picaresque novel.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	562	Golden Age Spanish Poetry	Major figures and works of the 16th and 17th centuries, with emphasis on lyric poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	563	Spanish Romanticism	Principal figures and works of Spanish romanticism, with emphasis on international literary context of the movement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	564	19th-Century Spanish Prose Fiction	Principal figures and works of realism in the 19th-century novel, with emphasis on Galdós.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	565	20th-Century Spanish Drama	Principal figures and works of Spanish dramatic literature from the Generation of 1898 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	566	Generation of 1927	Major poets of the Generation of 1927, with emphasis on works of Lorca, Guillen, Salinas, and Aleixandre.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	567	Contemporary Spanish Novel	Major works of post-Civil War Spanish fiction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	568	Cervantes	Extensive analysis of the prose and theater of Cervantes as a key figure of the Spanish Golden Age.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	569	Studies in Spanish Film	Examines major figures and films in Spanish cinema. Critically interprets films through current film theory, history, and critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	570	Indigenous Literatures of Spanish America	Indigenous literary traditions, with emphasis on Nahuatl, Mayan, and Quechua literatures through readings in Spanish translations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	571	Colonial Spanish American Literature	Major figures and works from conquest to independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	572	Spanish American Drama	Major contributions of Spanish American drama, with emphasis on contemporary dramatists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	573	Spanish American Essay	Major works of the essay, within the framework of intellectual history and literary movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	574	Spanish American Vanguard Poetry	Examines poetic developments, 1920-1940, with emphasis on Huidobro, Vallejo, Neruda, and the international context of their works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	575	Contemporary Spanish American Novel	Principal novels of the <i>Nueva Narrativa Hispanoamericana,</i> within the context of contemporary theories of the narrative.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	576	Contemporary Spanish American Short Story	Principal short stories of the <i>Nueva Narrativa Hispanoamericana,</i> within the context of contemporary theories of the narrative.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	577	Regional Spanish American Literature	Figures and works of major national (Peru, Argentina, Chile, and Mexico) and regional (Caribbean) literatures. Topics offered on a rotating basis. May be repeated when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	578	Novel of the Mexican Revolution	Representative works and authors of this genre (Guzmán, Azuela, Urquiza, Muñoz, and Romero), including related or peripheral offshoots in indigenous novels.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	581	Latin American Popular Culture	Studies in selected topics of Latin American popular culture, with emphasis on appropriate academic models for the critical analysis of these materials.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	582	Studies in Latin American Film	Examines the role of film in contemporary Latin American culture; films viewed and analyzed as casebook examples.	N	SEM	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	585	Mexican American Short Story	Major collections and figures in Spanish or translation by contemporary Chicano short story writers (Ullica, Su´rez, Ulibarrí, Soto, Aguilar, P. Martín, Alarc´n, R. S´nchez, N. Cantú, J. Sagel, Cisneros) interpreted via current narrative theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	586	Mexican American Novel	Major novels and figures in Spanish or translation by contemporary Chicano novelists (Hinojosa-S., Méndez, Morales, Cota-C´rdenas, Cisneros) interpreted via current narrative theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPA	587	Mexican American Drama	Major works of Mexican American drama, with emphasis on contemporary playwrights (Valdez, Portillo-T., Morton, Moraga, Gómez-Peña) interpreted via current critical drama theory an other methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	588	Mexican American Essay	Major figures and essays in Spanish or translation by contemporary essayists (Rendón, Anzaldúa, Villanueva, Rodríguez, Mora, Stavans) interpreted via current critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	589	Mexican American Poetry	Major figures and works in Spanish or translation by contemporary poets (Gonzales, Alurista, L.D. Cervantes, B. Zamora, R. Sánchez, Baca, G. Valdés, J. Montoya, G. Velázquez, T. Villanueva, J.F. Herrera, A. Villanueva) interpreted via current critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	601	Latin American Feminist Cultural Production	Latin American feminist theory and studies as viewed through cultural production such as literature, film, photography, art.	N	SEM	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	791	Seminar		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
SPA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.		Students may not sign up for SPA 101, OR 102 if they have received a D or better in SPA 111.
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.		Students may not sign up for SPA 101, OR 102 if they have received a D or better in SPA 111.
SPA	107	Spanish for International Professions I	Accelerated program alternative to SPA 101, 102 sequence. Functional approach to needs of international professions. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	8.		
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312, 313, 314, 315, 316, 325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	207-W	Spanish for International Professions II	Continuation of SPA 107, alternative to SPA 201 and 202 sequence. Expansion of communicative proficiency in specific areas of international professions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	8.		
SPA	311	Spanish Conversation	Designed primarily for nonmajors to promote vocabulary building and communicative expression in Spanish through discussions based on cultural readings.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	312	Spanish Conversation	See SPA 311.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	Pre-requisites: Must have completed SPA 202 with a grade of C or greater.
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	
SPA	325-W	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: Must have completed SPA202 with a grade of C or greater.
SPA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	412	Advanced Conversation and Composition	Oral and written Spanish communication skills, with particular attention given to developing fluency and facility. Required of majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	
SPA	413	Advanced Spanish Grammar	Intensive analysis of the Spanish language. Required of teaching majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	
SPA	425	Spanish Literature	Surveys Spanish literature from its beginning to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-rquisites: Must have completed SPA 325 with a grade of C or greater.
SPA	426	Spanish Literature	Surveys Spanish literature from 1700 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
SPA	427	Spanish-American Literature	Surveys major works, figures, and movements from Colonial period to 1880.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	428-W	Spanish-American Literature	Surveys major works, figures, and movements from 1880 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	464	Mexican American Literature	Representative literature in Spanish and English by Mexican Americans, emphasizing sociocultural as well as literary values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & C	
SPA	472-W	Spanish-American Civilization	Growth of the institutions and cultures of Spanish-American people.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: Must have completed SPA 325 with a grade of C or greater.
SPA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
SPA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	111	Fundamentals of Spanish	Primarily for students with two years of high school Spanish who need review to enter second-year study. Credit is allowed for only SPA 111 or both SPA 101 and 102. fee	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		You may not sign up for SPA 111 if you have received a D or better in SPA111,201,202,203,204,311,312,313,314,315,316,325,412
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
SPA	325	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SPC	555	Inclusive Practices for Diverse Learners	Adapting instruction and assessment to meet the needs of all learners in inclusive settings. Includes the creation of plans to address challenging classroom behaviors.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SPC	312	Advanced Foundations of High-Incidence Disabilities	Emphasizes the needs of students with mild to moderate mental retardation, learning disabilities, emotional disturbances, and physical and other health impairments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	320	Behavior Analysis and Management	Development of functional analyses and implementation of behavior intervention plans emphasizing positive behavior supports in the classroom environment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
SPC	420	Special Education Assessment	Assessment procedures for determining eligibility and identifying educational needs of students with disabilities, including legal issues and current trends. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	425	Advanced Inclusion Strategies and Professional Practices	Applies inclusive strategies during student teaching. Emphasizes structured reflection and self-assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		

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SPC	440	Special Education Program Planning	Overview of legal and cultural issues; the development of curriculum, Individual Education Plans; evaluation of student progress, and instructional effectiveness. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	450	Secondary Content Methods and Accommodations	Examines programs, curricula, and accommodations for secondary students with disabilities. The development, implementation, and evaluation of transition plans.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	455	Advanced Methods and Accommodations	Orientation to philosophies and principles of curriculum development. Selection, evaluation, and adaptations of curricula and instructional methods for pull-out and inclusive settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPC	460	Consultation and Collaboration in Inclusive Environments	Examines and applies theories and practices used to promote consultation and collaboration with all stakeholders in inclusive environments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
SPC	475	Field Experience in Inclusive Settings II	Applies course content while working with students with disabilities in inclusive settings. Emphasizes making and evaluating accommodations. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
SPC	480	Student Teaching with Students with Disabilities	Supervised teaching in inclusive settings. Capstone practicum in assessment, program planning, curriculum, instruction, collaboration, and classroom and behavior management. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	10-12		
SPC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SPC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	512	Individuals with Mental Retardation	Etiology, diagnosis, and management of individuals with mental retardation. Current trends in prevention, programming, and teacher preparation. Not recommended for students who have completed SPE 312.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	514	Bilingual/Multicultural Aspects of Special Education	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	515	Methods for the Remediation of Learning Problems of Exceptional Children	Methods and materials for remediating the basic academic problems of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	519	Inclusion Methods: Science, Social Studies, and Mathematics	Instructional strategies used for delivery of science, social studies, and mathematics with exceptional children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	524	Effective Classroom Behavior Management	Organization and delivery of instruction including formative evaluation and techniques of academic behavior management for exceptional children. Requires practicum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	525	Social Behavior Interventions	Analysis and intervention into social behavior problems of exceptional students. Focuses on strategies to change maladaptive social behavior. Requires practicum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	531	Methods of Applied Behavior Analysis for Exceptional Populations	Behavior management approaches for classroom behavior of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPE	536	Characteristics of Children with Behavioral Disorders	Variables contributing to behavior patterns of behaviorally disordered children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	537	Instructional Management: Reading and Language Arts	Instructional strategies used for delivery of reading and language arts with exceptional children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPE	548	Cross-Categorical Foundations: LD, ED, MR, & PI/OHI	Foundations course compares cognitive, motor, and affective developmental and educational issues across LD, ED, MR, and PI/OHI.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	550	Inclusion Practices in Science and Mathematics	Facilitates and expands knowledge in the practical application of strategies meeting diverse needs of learners in science and mathematics classrooms	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2.		Pre-requisites: Graduate students only
SPE	551	Teaching Young Children with Special Needs	Methods, materials, and curriculum for preschool and primary-aged children with special needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only

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SPE	554	The Parent/School Partnership	Includes knowledge and procedures for involvement and training of parents and caregivers of preschool and severely handicapped individuals. Requires field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	561	Characteristics/Diagnosis of Learning Disabilities	Theories related to learning disabilities, including identification and characteristics.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	566	Applied Behavior Analysis in Inclusive Settings	Definitions, characteristics, assumptions, and basic principles of behavioral analysis as applied to social skills in inclusion settings.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Non-degree graduate or graduate student
SPE	574	Educational Evaluation of Exceptional Children	Design and statistical considerations of normative and criterion-referenced tests. Collection, recording, and analysis of data from formative evaluation.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	575	Survey and Current Issues in the Education of Exceptional Children	Mainstreaming, noncategorical, financing, legal diagnostic, labeling, legislative, and other critical and controversial issues related to the education of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	577	Inclusive Teaching and Learning	Develops successful learning environments for students using evidence-based instructional approaches, collaborative teaching models, and culturally responsive practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	582	Classroom Research with Exceptional Children	Introduces interpreting research. Specific research techniques with primary emphasis on classroom research, including applied behavior analysis.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	585	Creativity: Research and Development	Explores nature of creativity in terms of philosophical underpinnings, empirical evidence, human development, self-actualization, and the ecology surrounding the creative event.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	586	Advising the Gifted Child	Focuses on educational planning and guidance, social and emotional development, and family problem solving regarding needs of gifted children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	588	The Gifted Child	Gifted children's characteristics, identification, needs, school and home environments, definitions, and misunderstandings. Research by Pressey, Stanley, Terman, and others.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	589	Methods in Teaching the Gifted	Methods in teaching elementary and secondary school gifted children, including individualized and computer-assisted instruction, team teaching.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be graduate student in Special Education
SPE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be a graduate student in Special Education
SPE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be a graduate student in Special Education
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisites: Graduate students only
SPE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be a graduate student in Special Education
SPE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be a graduate student in Special Education
SPE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Must be a graduate student in Special Education
SPE	702	Conducting Research with Special Populations	Considers concepts and methodologies for conducting research with any aspect of special education, including gifted and multicultural.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Must be Graduate(doctoral) student in Special Education
SPE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite:Must be a graduate student (doctoral) in Special Education
SPE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be a grad(doctoral) student in Special Education
SPE	587	Controversies in Educating the Gifted	In-depth analysis of major controversies in educating the gifted, including nature/nurture, the role of mental tests, and sex differences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
SPE	316	Introduction to Physical Disabilities and Other Health Impairments	Introduces various physical disabilities and other health impairments with an emphasis on service delivery in schools and communities.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	512	Individuals with Mental Retardation	Etiology, diagnosis, and management of individuals with mental retardation. Current trends in prevention, programming, and teacher preparation. Not recommended for students who have completed SPE 312.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	514	Bilingual/Multicultural Aspects of Special Education	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	515	Methods for the Remediation of Learning Problems of Exceptional Children	Methods and materials for remediating the basic academic problems of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	519	Inclusion Methods: Science, Social Studies, and Mathematics	Instructional strategies used for delivery of science, social studies, and mathematics with exceptional children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	520	Reading and Communication Strategies for Individuals with Autism	Understands and applies reading and communication strategies with individuals with autism and related disorders. Includes historical, diagnostic, and identification issues.	N	DIS	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must be non-degree graduate or graduate student
SPE	521	Foundations of Autism Spectrum Disorders	Increases the understanding of characteristics of individuals with autism.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate students only
SPE	531	Methods of Applied Behavior Analysis for Exceptional Populations	Behavior management approaches for classroom behavior of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate students only
SPE	532	Systems, Policies, and Program Practices	Analyzes historical, political, social, and legal factors impacting special education services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	533	Issues and Foundations in Special Education	Foundational themes and issues in special education. Critical issues related to characteristics of students with mild emotional disturbance, behavior disorders, learning disabilities, mental retardation, orthopedic, and other health impairments.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	534	Assessment and Evaluation for Children with Special Needs	Discusses assessment practices related to student eligibility and program planning. Emphasizes authentic, individualized, interdisciplinary practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	535	Curricula, Methods, Technology, and Adaptations in Special Education	Develops strategies for effective adaptation of special education and general education curriculum through use of technology.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	536	Characteristics of Children with Behavioral Disorders	Variables contributing to behavior patterns of behaviorally disordered children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	537	Instructional Management: Reading and Language Arts	Instructional strategies used for delivery of reading and language arts with exceptional children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	540	Family Centered Practices	Issues associated with families and family systems. Effects of disabilities on families. Strategies for family support and empowerment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	541	Consultation Frameworks and Issues	Models, activities, and roles of educational consultants working with families, professionals, and support personnel across disciplines and agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	543	Issues in the Development of Infants and Young Children	Factors and conditions that affect early development. Strategies for promoting attachment, self-regulation, resilience, adaptation, and coping.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	544	Assessment and Evaluation of Infants and Young Children	Developmental assessment and related program planning for infants and young children. Emphasizes authentic, individualized, family-centered and culturally competent approaches.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	545	Curricula, Methods, Technology, and Adaptations for Infants and Young Children	Developmentally appropriate practices. Serving young children with diverse abilities in natural, inclusive settings. Emphasizes cognitive development, social competence.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	546	Communication, Language, and Early Literacy	Early communication development and language acquisition. Facilitating communicative competence and early literacy for infants and young children with diverse abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	547	Supporting Motor Development	Early sensorimotor development. Strategies to facilitate the acquisition of motor skills and address the needs of children with motor disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	548	Cross-Categorical Foundations: LD, ED, MR, & PI/OHI	Foundations course compares cognitive, motor, and affective developmental and educational issues across LD, ED, MR, and PI/OHI.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must have completed SPE 512 and 574 with a grade of C or better
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Must have completed SPE 512 and 574 with a grade of C or better
SPE	554	The Parent/School Partnership	Includes knowledge and procedures for involvement and training of parents and caregivers of preschool and severely handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	561	Characteristics/Diagnosis of Learning Disabilities	Theories related to learning disabilities, including identification and characteristics.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	574	Educational Evaluation of Exceptional Children	Design and statistical considerations of normative and criterion-referenced tests. Collection, recording, and analysis of data from formative evaluation.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	575	Survey and Current Issues in the Education of Exceptional Children	Mainstreaming, noncategorical, financing, legal diagnostic, labeling, legislative, and other critical and controversial issues related to the education of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	577	Inclusive Teaching and Learning	Develops successful learning environments for students using evidence-based instructional approaches, collaborative teaching models, and culturally responsive practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	578	Student Teaching in Special Education	Y grade only. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate students only
SPE	578	Student Teaching in Special Education	Y grade only. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		
SPE	578-W	Student Teaching in Special Education	Student teaching in special education setting for students in the MEd with Concentration in Teacher Certification. Lab, field experience. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	12.		
SPE	579	Apprentice Teaching in Special Education	Apprentice teaching in special education setting. Must be taken four times for a total of 12 semester hours. Lab, field experience. Fee.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	582	Classroom Research with Exceptional Children	Introduces interpreting research. Specific research techniques with primary emphasis on classroom research, including applied behavior analysis.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
SPE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	301	Assistive Technology in Education	Examines the use of assistive technology in educational settings to achieve educational, personal, and social goals of students with disabilities.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	303	Foundations of LD and ED	Examines history, etiology, assessment, classification, programming, accommodations, and inclusion for students with disabilities LD and EH	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	304	Foundations of MR and PD/OHI	Examines effective assessment, early intervention, programming, instruction, modifications, self determination, and inclusion for students with disabilities MR and PD/OHI.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	309	Basic Special Education Curriculum	Introduces curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	310	Professional Practices and Foundations in Special Education	Foundational themes and issues in special education. Discusses each disability within the mild cross-categorical area in relation to foundational themes and issues relating to professional practices in special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	310	Professional Practices and Foundations in Special Education	Foundational themes and issues in special education. Discusses each disability within the mild cross-categorical area in relation to foundational themes and issues relating to professional practices in special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Education student, SPE 317, SPE 320, SPE 322, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	312	Mental Retardation	Characteristics and assessment specific to mental retardation. Emphasizes terminology, development, educational programming, and therapeutic procedures.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; SPE 314 and SPE 361 with C or better or currently enrolled; SPE 496 with Y grade or currently enrolled; Co-requisites: SPE 336, SPE 412, SPE 413 and SPE 496
SPE	314	Introduction to Bilingual/Multicultural Special Education	Theoretical background and practical application of general issues regarding the education of bilingual/multicultural handicapped children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	317	Special Education for Culturally and Linguistically Diverse Children and Youth	General issues and practical applications regarding the education of culturally and linguistically diverse students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	317	Special Education for Culturally and Linguistically Diverse Children and Youth	General issues and practical applications regarding the education of culturally and linguistically diverse students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Education student, SPE 310, SPE 320, SPE 322, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	318	Family-School Collaboration	Explores relationships between families of children with special needs and professionals in educational institutions and community agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	318	Family-School Collaboration	Explores relationships between families of children with special needs and professionals in educational institutions and community agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 423, SPE 424, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	320	Assessment and Evaluation in Special Education	Norm-referenced, criterion-referenced, and authentic strategies to determine eligibility, plan individualized programs, and monitor progress of students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Co-requisites: Special Education student, SPE 310, SPE 317, SPE 322, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	320	Assessment and Evaluation in Special Education	Norm-referenced, criterion-referenced, and authentic strategies to determine eligibility, plan individualized programs, and monitor progress of students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
SPE	322	Behavior Management and Consultation	Develops and implements analysis, intervention, and consultation strategies for effective management of classroom behavior for students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Education student, SPE 310, SPE 317, SPE 320, SPE 397 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	322	Behavior Management and Consultation	Develops and implements analysis, intervention, and consultation strategies for effective management of classroom behavior for students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	336	Behavioral and Emotional Problems in Children	Characteristics and assessment specific to emotionally and behaviorally disturbed children. Emphasizes terminology, development, and educational programming.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; SPE 314 and SPE 361 with a C or better or currently enrolled; SPE 496 with Y grade or currently enrolled; Co-requisites: SPE 312, SPE 412, SPE 413 and SPE 496
SPE	361	Introduction to Learning Disabilities	Characteristics and assessment specific to learning disabilities. Emphasizes terminology, development, and educational programming.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	396	Field Experience I	Applies course content while working with students with disabilities in inclusive settings. Emphasizes classroom and behavior management. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
SPE	397	Field Experience II	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Special Education student, SPE 310, SPE 317, SPE 320, SPE 322 and RDG 322 OR PDS (Professional Development School) students as appropriate
SPE	397	Field Experience II	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
SPE	411	Parent Involvement and Regulatory Issues	Emphasizes parent and school relations through effective communication and state and federal regulations impacting services for the handicapped.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	411	Parent Involvement and Regulatory Issues	Emphasizes parent and school relations through effective communication and state and federal regulations impacting services for the handicapped.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student with a cumulative GPA of at least 2.50 AND have completed with a grade of C or better in SPE412 and 413 and a Y grade in SPE496 AND be co-enrolled in SPE414,415,419 and 496
SPE	412	Evaluating Exceptional Children	Normative and criterion-referenced diagnostic techniques, including formative evaluation. Emphasizes application. Requires daily practicum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	413	Methods in Language, Reading, and Mathematics for Exceptional Children	Methods, techniques, and materials for use in prescriptive teaching. Requires daily practicum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	414	Instructional Management and Strategies: Reading and Writing	Organization and delivery of instruction, including formative evaluation techniques. Instructional techniques of reading and writing. Requires regular participation in a field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student with a cumulative GPA of at least 2.50 AND have earned a grade of C or better in SPE412 and 413 and a Y grade in SPE496 AND be co-enrolled in SPE411,415,419 and 496 or SPE494 and 496
SPE	415	Classroom and Behavior Management	Analysis and intervention into social behavior problems of exceptional populations. Requires regular participation in a field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student with a cumulative GPA of at least 2.50 AND have completed with a grade of C or better in SPE412 and 413 and a Y grade in SPE496 AND be co-enrolled in SPE411,414,419 and 496
SPE	416	Quality Practices in the Collaborative Classroom	Develops skills, strategies, and a knowledge base for preservice teachers in building collaborative partnerships with special educators. May be repeated for credit.	Y	FLD	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisites: Initial Teacher Certification Program Admission
SPE	417	Inclusion Practices at the Secondary Level	Applies curricular practice and how preservice teachers work with students with special needs in middle and secondary levels.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission
SPE	418	Quality Practices in the Collaborative Indigenous Classroom	Develops skills, strategies, and knowledge for preservice teachers, focusing on indigenous children, while building collaborative partnerships with special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	419	Instruction in Content Areas: Science and Social Studies	Develops and implements instructional methods and learning strategies for students with special needs related to science and social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Must be a Fulton Education Undergraduate or Graduate student and have a cumulative GPA of at least 2.5
SPE	423	Technology & Instructional Methods in Language, Reading, & Mathematics - Mild/Moderate Disabilities	Effective use of technology; instruction and assessment of performance in language, reading, and mathematics for students with mild/moderate disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	423	Technology & Instructional Methods in Language, Reading, & Mathematics - Mild/Moderate Disabilities	Effective use of technology; instruction and assessment of performance in language, reading, and mathematics for students with mild/moderate disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 318, SPE 424, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	424	Methods of Cross-Categorical Special Education	Assessment and instructional methods for students with mild to moderate retardation, learning disability, emotional disabilities, and physical/health impairment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	424	Methods of Cross-Categorical Special Education	Assessment and instructional methods for students with mild to moderate retardation, learning disability, emotional disabilities, and physical/health impairment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 318, SPE 423, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	431	Collaborative Teaching Methods for General Education Classroom Environments	Methods and issues in cooperative teaching for special education students in general education classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	431	Collaborative Teaching Methods for General Education Classroom Environments	Methods and issues in cooperative teaching for special education students in general education classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special education student, SPE 318, SPE 423, SPE 431, SPE 496 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	440	Professional Seminar in Special Education	Examines critical issues in the delivery of special education services. Emphasizes self reflection and professional development.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Special Ed student; SPE 479 OR PDS (Professional Development School) student as appropriate
SPE	440	Professional Seminar in Special Education	Examines critical issues in the delivery of special education services. Emphasizes self reflection and professional development.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SPE	478	Student Teaching in Special Education	Y grade only. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SPE	478	Student Teaching in Special Education	Student teaching in special education setting.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Co-requisites: Special Ed student; SPE 440 OR PDS (Professional Development School) student as appropriate
SPE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SPE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisites: Must be an Honors student
SPE	493	Honors Thesis		N	THE	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SPE	493	Honors Thesis		N	THE	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	496	Field Experience III	Applies course content in a special education setting. Emphasizes observation pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
SPE	496	Field Experience	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Initial Teacher Certification Program Admission
SPE	496	Field Experience III	Applies course content in a special education setting. Emphasizes observation pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		Co-requisites: Special education student, SPE 318, SPE 423, SPE 424, SPE 431 and EED 412 OR PDS (Professional Development School) student as appropriate
SPE	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SPE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
SPE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SPE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
SPF	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
SPF	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	298	Honors Directed Study		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	301	Culture and Schooling	For the professional teacher preparation program. Overview of the cultural, social, and political milieus in which formal schooling takes place in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	L	Pre-requisites: Education or BIS students or completion of first year composition
SPF	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	401	Teachers and the Law	For the professional teacher preparation program. Analysis and interpretation of classroom behavior from perspectives derived from philosophy, social science, and law.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-2		
SPF	402	Teachers and the Law in Indigenous Communities	Examines the legal rights of students, teachers, and the district while preventing injury to students in indigenous communities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
SPF	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
SPF	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6	L	Pre-requisites: Must be an Honors student
SPF	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	497	Honors Colloquium		Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPF	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
SPF	501	Culture and Schooling	Introduces social science concepts of culture and the cultural milieu in which schooling takes place in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2-3		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	510	Intro to Organization and Administration of American Public Schools	Curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	511	School and Society	Interrelationship of school and society and the role of education in social change.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	515	Gender and Education	Methods and materials for remediating the basic academic problems of exceptional children. Prerequisite: admission to MED in Special Education program.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	520	Cultural Diversity in Education	Philosophic and sociological investigation of cultural diversity in the United States and how it relates to education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	530	Sociology of Education	Current issues in the sociology of education: stratification, social mobility.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	534	Foundations of Educational Inquiry	Overview of the nature of inquiry examining the philosophy of science and social science, approaches to knowing in the humanities. Credit is allowed for only SPF 534 or 634.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	544	Philosophical Foundations of Education	Theories of education in ancient, medieval, and modern classical and contemporary philosophies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	597	Teacher and the Law	For the professional teacher preparation program. Analysis and interpretation of classroom behavior from perspectives derived from philosophy, social science and the law.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-2		
SPF	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
SPF	603	Visual Ethnography in Education	Advanced qualitative methods class combining ethnography with the use of video and still photography in data gathering and presentation.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		

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SPF	612	Evaluation Theory	Explores the major theories of evaluation (inquiry leading to value judgments) in educational policy through examination of cases.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	622	Organizational Theory	Major views of organizations and their influence on role definition and participant behaviors in educational organization.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	634	Foundations of Educational Inquiry	Overview of the nature of inquiry examining the philosophy of science and social science, approaches to knowing in the humanities. Credit is allowed for only SPF 634 or 534.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	677	Foundations of Educational Reform Movements	Historical and contemporary survey of curricular reform movements in the United States with emphasis on equity and social justice issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	685	Education in Global Contexts	Global perspectives on education in contemporary society with emphasis on social, political and economic factors that affect access and equity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-6		
SPF	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	711	Social and Historical Foundations of Education	Explores the history of sociological thought, especially theories of the relations between educational systems and the social/cultural world.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPF	510	Intro to Organization and Administration of American Public Schools	Curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
SPF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
SPF	301	Culture and Schooling	For the professional teacher preparation program. Overview of the cultural, social, and political milieus in which formal schooling takes place in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisites: Education or BIS students or completion of first year composition
SSH	100	Introduction to Global Health	Current global health crises, challenges; tools for describing health and disease; ecological, cultural, social, historical, political-economic factors; comparative health systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
SSH	200	Food and Culture	Uses the case of food to explore how culture shapes human well-being, including the impact of political-economic systems on what we have and chose to eat.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & C	Pre-requisites: ENG 101, 105, 107, or ENG 111. Students who have credit for ASB 200, may not enroll in SSH 200
SSH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	301	Global History of Health	Examines disease and health transitions in broadest context of human history, from primate ancestors to hunter-gatherers, to transcontinental contact, colonialism, industrialization, urbanization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better or currently enrolled. If you have credit in ASB 301, you may not enroll in SSH 301
SSH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	400	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	Pre-requisites: ASB 100 (or SSH 100) or ASB 102 with D or better
SSH	401	Health and Human Biology	Health and biology in contexts of human evolutionary history, biological and cultural variation, lab-based health status assessments, core concepts of human variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASB 100 or ASM 104 with D or better or currently enrolled; SSH 100 with D or better or currently enrolled
SSH	402	Community Partnerships for Global Health	Supervised community-based activities relevant to a global perspective on contemporary U.S. health. Addresses community-identified issues using appropriate methodologies.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9	SB	Pre-requisites:SSH 400 or ASB 440 with a grade of D or better or currently enrolled. If you have credit in ASB 452, you may not sign up for SSH 402
SSH	403	Cross-Cultural Studies in Global Health	Direct investigations of society, ecology, and health in international settings.	N	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-6	SB & G	Pre-requisites:SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit for ASB 443, you may not enroll in SSH 403
SSH	405	Senior Seminar in Global Health	Students create health solutions, integrating theoretical, methodological, ethical, and experiential learning related to the global health major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
SSH	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: Students who have credit for ASM 414, or SOS 414, may not enroll in SSH 414. Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
SSH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
SSH	492	Honors Directed Study		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
SSH	493	Honors Thesis		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
SSH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
SSH	510	Health: Social and Biocultural Theories	Comparative and critical approaches to complexities of health, drawn from anthropology and related fields Focuses on theories that address how social and cultural factors shape human health.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	511	Ethics in Health Social Science Research	Ethics and social justice issues in community-based health research relevant to health social science, including informed consent, community involvement, control, advocacy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: SSH 510 or ASB 510 completed with D or better or currently enrolled
SSH	512	Social Science Applications in Community Health	Supervised community-based activities relevant to improvement of health through application of social science theory.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9		Pre-requisites: ASB 511 or SSH 511 with D or better. Must be graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SSH	513	Research Design and Proposal Writing in Health Social Science	Research design, piloting, and proposal writing for social scientists conducting health research.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASB 500 completed with D or better or currently enrolled; SSH 511 or ASB 511 completed with D or better or currently enrolled
SSH	514	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
SSH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
STP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Prerequisite: Must be a freshman with 25 or less total earned hours
STP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	220	Conceptual Statistics	Treats the concepts and vocabulary needed to evaluate statistical reports on health, technology, and society. Aggressively emphasizes understanding over computation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	231	Statistics for Life Science	Concepts and methods of statistics; display and summary of data, interval estimation, hypothesis testing, correlation, regression. Applications to biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Prerequisites: MAT 117 or 142 with C or better
STP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
STP	326	Intermediate Probability	Probability models and computations, joint and conditional distributions, moments, and families of distributions. Topics in stochastic processes, simulation, and statistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 210 or 251 or 265 or 270 with C or better
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 117 or MAT 142 with C or better
STP	421	Probability	Laws of probability, combinatorial analysis, random variables, probability distributions, expectations, moment-generating functions, transformations of random variables, and central limit theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 272 or 267 with C or better
STP	425	Stochastic Processes	Markov chains, stationary distributions, pure jump processes, 2-D order processes, and other topics in stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 342 (or 343); STP 421 with C or better.
STP	427	Mathematical Statistics	Limiting distributions, interval estimation, point estimation, sufficient statistics, and tests of hypotheses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: STP 421 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
STP	429	Experimental Statistics	Statistical inference for controlled experimentation. Multiple regression, correlation, analysis of variance, multiple comparisons, and nonparametric procedures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: STP 420 with C or better
STP	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
STP	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
STP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
STP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
STP	525	Advanced Probability	Measure-theoretic foundations of probability, distribution functions and characteristic functions, laws of large numbers and central limit theorems, conditional probabilities, martingales, and topics in stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	526	Theory of Statistical Linear Models	Multinomial distribution, distribution of quadratic forms, full and nonfull rank models, generalized inverses, unbalanced data, variance components, and the large sample theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	527	Statistical Large Sample Theory	Types of convergence, central limit theorems, theory of maximum likelihood estimation, efficiency, robustness, influence functions, theory of bootstrap methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	530	Applied Regression Analysis	Method of least squares, simple and multiple linear regression, polynomial regression, analysis of residuals, dummy variables, and model building.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	531	Applied Analysis of Variance	Factorial designs, balanced and unbalanced data, fixed and random effects, randomized blocks, Latin squares, analysis of covariance, and multiple comparisons.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	532	Applied Nonparametric Statistics	One-sample test, tests of 2 or more related or independent samples, measures of correlation, and tests of trend and dependence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	533	Applied Multivariate Analysis	Discriminant analysis, principal components, factor analysis, cluster analysis, and canonical correlation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	534	Applied Discrete Data Analysis	Models for discrete and count data, measures of association, and log-linear and regression models for contingency tables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	535	Applied Sampling Methodology	Simple random, stratified, cluster sampling; variance estimation in complex surveys; nonparametric superpopulation approaches; nonresponse models; computational methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
STP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
STP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
STP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
STP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
STP	220	Conceptual Statistics	Treats the concepts and vocabulary needed to evaluate statistical reports on health, technology, and society. Aggressively emphasizes understanding over computation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	226-W	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: Must have completed MAT117 or MAT142 with a grade of C or greater or be currently enrolled.
STP	300	Introduction to Probability	Probability models and computations, joint and conditional distributions, moments, families of distribution, stochastic processes, simulation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT210 with a grade of C or greater or be currently enrolled.
STP	326	Intermediate Probability	Probability models and computations, joint and conditional distributions, moments, and families of distributions. Topics in stochastic processes, simulation, and statistics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	421	Probability	Laws of probability, combinatorial analysis, random variables, probability distributions, expectations, moment-generating functions, transformations of random variables, and central limit theorem.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
STP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
STS	101	Introduction to Science, Technology, and Society	Overview of the basic issues, definitions, and literature involved in the study of science, technology, and human systems. Credit is given for only STS 304 or 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	110	Global Technology and Development	Introduces awareness and understanding of how technology, processes of globalization, and society influence one another. Credit is given for only STS 317 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	Credit is allowed for only STS 110 or 317
STS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	301	Research in Science and Technology Studies	Examines methods of inquiry in the social sciences with emphasis on STS, including both qualitative and quantitative approaches, philosophy of science, and scientific revolutions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	

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STS	302	Philosophy of Science and Technology	Focuses on the nature and implications of science as a body of knowledge, set of practices, specific methods, and how these differ from other human enterprises and activities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: ENG 101, ENG 105, ENG 107 or ENG 111 with C or better
STS	303	History of Technology	Examines the history of technology within social, cultural, political, and economic contexts and the critical relationship between society and technology	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	H	
STS	304	Science, Technology, and Society	Overview of the major issues associated with the study of science, technology, and human systems, including theoretical approaches. Credit is given for only STS 304 or 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	305	Science and Social Theory	Explores the different theoretical traditions that inform social interpretations of science, including awareness of the historical traditions that define these interpretations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	306	Social Effects of Science and Technology	Examines the effects of science and technology on social life and the contexts in which those effects manifest.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	317	Science, Technology, and Global Engagement	Overview of international issues associated with both the development and deployment of technologies, including matters concerning international relations. Credit is given for only STS 317 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	Credit is allowed for only STS 110 or 317
STS	318	Science, Technology, and Government	Examines the foundations of the interrelationship of science, technology, and democratic governance, with emphasis on the American political system.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	325	Science, Technology, and Public Policy	Examines the interaction of science and technology with American domestic policy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	328	Science, Technology, and Culture	Overview of technology and international cultures, including cultural definitions of science and technology. May intersect issues of culture and religion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	329	Cultivating Technology in Newly Industrializing Countries	Covers specific issues relating to building technological capability in newly industrializing countries.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	330	Information Technology and Globalization	Examines the intersection of advances in information technology and globalization and the impact of these processes on human systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	331	Ethical Issues in Science and Technology	Examines the interconnections between values and science and technology by examining such topics as computers and privacy, medical malpractice, reproductive technologies, patents, and hazardous facilities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	332	Global Issues in Science and Technology	Examines contemporary international debates in science and technology and how those issues impact globalization.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	364	Science, Technology, and National Security	Examines how changing technologies impact all aspects of national security policy in the United States.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites:STS 101 and STS 301 with a grade of D or better
STS	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	401	Statistics in Science and Technology Studies	Introduces statistical techniques for the social sciences, including the role and rationale of statistics, descriptive measures, associational measures, and inferential statistics.	N	LEC	N	GRD	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:Completed STS 301 with a grade of D or better
STS	425	Law, Values, Science, and Technology	Examines the interconnections of law, values, and science and technology with a view to establishing their reciprocal relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
STS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		

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STS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
SWG	501	Micro Human Behavior in the Social Environment	Human behavior in the social environment throughout the life cycle, analyzing theories of human development within an integrative multidimensional framework.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite: MSW or DSW student
SWG	502	Macro Human Behavior in the Social Environment	Human behavior in the social environment, focusing on groups, organizations and communities and examining theoretical perspective in a macro context.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite: MSW or DSW student
SWG	503	Development of Families in Oppressive Context	Addresses the development of healthy families and children. Explores essential tasks of human development and theories that inform practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	503	Development of Families in Oppressive Context	Addresses the development of healthy families and children. Explores essential tasks of human development and theories that inform practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be admitted to MSW.
SWG	504	Theories of Human Behavior	Addresses development of healthy adults and human behavior in groups, organizations, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; SWG 503 with a C or better or currently enrolled
SWG	510	Foundation Practice I	Basic social work methods with emphasis on the problem-solving process as it pertains to individuals, families, and small groups.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student.
SWG	511	Foundation Practice II	Theory and methods of direct practice with groups and selected practice models.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student; SWG 510 with C or better
SWG	512	Values and Ethics of Social Work Practice I	Develops a basic understanding of diverse ethical systems and their application to a broad range of human problems in various social and cultural contexts.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW student
SWG	512	Values and Ethics of Social Work Practice I	Develops a basic understanding of diverse ethical systems and their application to a broad range of human problems in various social and cultural contexts.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	513	Social Work Generalist Practice II	Building on SWG 512, continues to develop and apply a generalist framework of social work practice. Examines theories of practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be admitted to the MSW and have completed SWG 512 with a grade of C or greater
SWG	519	Research Methods in Social Work	Conceptual foundations and methods of nomothetic research in social work. Includes problem identification, hypothesis formulation, measurement, sampling, and experimental design.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student.
SWG	520	Research and Advocacy	Develops knowledge and skills needed to utilize and engage in social research related to advocacy issues and the evaluation of social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	531	Social Policy and Services I	Conceptual, analytical, and historical perspectives on the social welfare institution. Emphasizes poverty and inequality. Principles of policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral of Social Work student
SWG	532	Policy and Social Change	Overview of the history, development, pertinent concepts, skills, and definitions associated with social welfare problems and policies.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	532	Policy and Social Change	Overview of the history, development, pertinent concepts, skills, and definitions associated with social welfare problems and policies.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	533	Diversity and Oppression in a Social Work Context	Explores issues of social inequality related to disability, ethnicity, gender, race, and sexual orientation. Emphasizes populations of the Southwest.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral Social Work student.
SWG	534	Diversity and Underserved Populations	Examines issues of privilege and oppression, including their impact on the social work process, with the goal of developing a culturally competent master's-level social worker.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	534	Diversity and Underserved Populations	Examines issues of privilege and oppression, including their impact on the social work process, with the goal of developing a culturally competent master's-level social worker.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	540	The Professional Experience I	150 clock hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; Co-requisite: SWG 512
SWG	540	The Professional Experience I	150 clock hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; Co-requisite: SWG 512
SWG	541	Field Practicum I	With SWG 542, two consecutive semesters (480 hours) of supervised social work practice in an approved placement. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Master or Doctor Social Work student; Pre or Co-requisite: SWG 510 with a grade of C or greater if completed
SWG	542	Field Practicum II	See SWG 541. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG510, SWG541, and SWG 511 with a C or greater or be currently enrolled (or be enrolling in SWG511)

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SWG	543	The Professional Experience II	250 hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Master of Social Work student; SWG 512 with C or better; Co-requisite: SWG 513
SWG	550	Co-Occurring Disorders	Provides sound theoretical and practical orientations to working with persons who have co-occurring disorders.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	551	Crisis Intervention	Covers the basics of crisis intervention in social work practice, along with applications to several different populations.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	552	Issues in School Social Work	Provides knowledge and skills necessary to implement effective social work services in a school setting.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	553	Social Work with American Indians	Introduces social work issues relevant to Native Americans. Explores effective methods with Native American clients.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	554	Substance Abuse	Psychological and sociocultural determinants of substance abuse. Overview of social policies and treatment approaches.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	555	Social Work Practice Skills with Latinos	Focuses on communication skills necessary and appropriate for social work practice with Spanish-speaking clients and their families. Credit is allowed for only SWG 555 or SWU 455.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	557	Southwest Borderland Immigration Issues	Reviews immigration history, trends, policies, and legislation. Focuses on immigrant experience from economic, educational, social, political, familial perspectives in Southwestern U.S. Credit is allowed for only SWU 557 or SWG 457.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Masters or Doctoral Social Work student
SWG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	585	Macro Social Work Practice	Examines communities and human service organizations as social systems. Introduces strategies for initiating planned change.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral Social Work student
SWG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		Pre-requisite: Master or Doctor Social Work student.
SWG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		Pre-requisites: Must be Master Social Work student.
SWG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Social Work	1-12		
SWG	600	Foundation for Advanced Practice	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: Master Social Work student.
SWG	603	Social Work Practice in Health/Behavioral Health Settings	Advanced social work practice in health and behavioral health settings, focusing on enhancement of client functioning and quality of life.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 502; SWG 511; SWG 542
SWG	604	Advanced Social Work Practice in Health	Addresses the crucial social work practice issues of health and healthcare in the new millennium.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 603
SWG	606	Assessment of Mental Disorders	Theories and concepts of mental health and illness. Attention to classification systems and nomenclature used in assessing mental disorders.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student; SWG 502 with C or better
SWG	608	Ecological Approach to Practice with Children, Youth, and Families	Provides a theoretical and practical orientation to working with children, youth, and families from an ecological strengths perspective.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: SWG 502; SWG 511; SWG 542
SWG	609	Advanced Social Work Practice with Child Welfare Families	Focuses on substance abuse, family violence, and serious mental illness in practice with families and children in the child welfare system.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 608 completed with D or better or currently enrolled
SWG	610	Advanced Social Work Practice III	Assists students in advanced theoretical understanding and practice with families, groups, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	610	Advanced Social Work Practice III	Assists students in advanced theoretical understanding and practice with families, groups, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW or MSW Adv Standing student; Co-Requisite: SWG 693 and 645

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SWG	611	Social Work with Families	Theory, concepts, and skills for working with diverse family populations. Emphasizes a systems and integrative approach.	N	LEC	N	OPT	College of Public Programs	School of Social Work	2-3		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 510 completed with C or better; SWG 511 completed with C or better or currently enrolled; SWG 541 and SWG 542 completed with Y or currently enrolled
SWG	612	Social Work with Groups	Practices applications of knowledge and skill to social work with groups.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	613	Advanced Social Work Practice in Behavioral Health	Treatment of prevalent disorders encountered by social workers, selected from the following: anxiety disorders, personality disorders, depression, and schizophrenia.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: SWG 603
SWG	614	Advanced Generalist Social Work Practice IV	Integrates a multilevel approach to practice with critical choice theories and interventions. Focus on groups, organizations, and communities and their impact on social work practice. Completion of the foundation courses or advance standing in the MSW program, or instructor approval, is required for all 600- level SWG courses.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	615	Effective Intervention with Children and Adolescents	Provides a framework of knowledge, theories, and skills for effective social work practice with vulnerable children and adolescents.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either:MSW or MSW Adv Standing
SWG	616	Social Work with Chemically Dependent Families	Examines dynamics of the chemically dependent family and presents clinical approaches for intervening in the family system and subsystems.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	617	Advanced Social Work Practice with Children and Adolescents	Theory, research, and intervention that focus on children and adolescents.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	618	Domestic Violence	Theory, research, intervention, and prevention strategies relevant to child maltreatment, partner abuse, and elder abuse.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	619	Practice-Oriented Research	Accelerated course in application of scholarly and scientific principles to field practice, problem formulation, interventional procedures, and impact assessment.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG519 with a grade of C or greater or be currently enrolled
SWG	621	Integrative Seminar	Explores the fit between theoretical frameworks and practice with clients. Requires presentation of empirical studies with clients.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work student; SWG 611 completed with a C or better or currently enrolled; SWG 641 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 613, 616, 617, 618 or 691 with a C or better if completed
SWG	623	Agency and Community-Based Research in Social Work	Research design techniques and data collection in human service agencies and communities. Analysis for program evaluation and needs assessment.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Soc Wrk student; SWG 519 or 520 completed with C or greater or currently enrolled; Pre or Co-requisite: SWG 680 with C or greater if completed, or currently enrolled.
SWG	626	Crisis Intervention and Short-Term Treatment	Comprehensive analysis of crisis and solution-focused brief intervention strategies and approaches used in advanced social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	626	Crisis Intervention and Short-Term Treatment	Comprehensive analysis of crisis and solution-focused brief intervention strategies and approaches used in advanced social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either:MSW or MSW Adv Standing; AND completed SWG 610 with a C or greater
SWG	630	Brief Social Work Intervention	Concepts and techniques of solution-focused, systematic, and strategic approaches to therapy in the context of brief therapy.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	631	Advanced Policy Analysis	Supports advanced generalist practice with emphasis on policy analysis and philosophy and politics of resource allocation and social welfare.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either: MSW or MSW Adv Standing
SWG	631	Advanced Policy Analysis	Supports advanced generalist practice with emphasis on policy analysis and philosophy and politics of resource allocation and social welfare.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	632	Social Policy and Services II	Develops advanced knowledge and skills in social welfare policy analysis, policy formulation, and advocacy and intervention for policy change.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG531 with a grade of C or greater or be currently enrolled
SWG	633	Child Welfare Services	Examines, using ecological and system theories, services that supplement, support, and substitute for parental care of children.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 542 completed with a Y or currently enrolled
SWG	641	Advanced Practicum: Direct Practice I	With SWG 642, two consecutive semesters (480 hours) of supervised social work practice in an approved placement related to the student's career goal. fee	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 511 completed with a C or better or currently enrolled; SWG 542 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 611 (with a C or better if completed)
SWG	642	Advanced Practicum: Direct Practice II	See SWG 641. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work; SWG 511 & SWG 611 with a C or greater or be currently enrolled; SWG 542 & SWG 641with a Y or be currently enrolled; Pre or Co-requisite: SWG 613, 616, 617, 618 or 691 with a C or greater if completed
SWG	643	Advanced Practicum: Planning, Social Work Administration, and Community Practice I	With SWG 644, two consecutive semesters (480 hours) in social work practice in an approved placement related to the student's career goal. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 511 completed with a C or greater or currently enrolled; SWG 542 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 681 or SWG 682 with a C or greater if completed
SWG	644	Advanced Practicum: Planning, Social Work Administration, and Community Practice II	See SWG 643. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work student; SWG 511 with C or better; SWG 542/643 with a Y grade; SWG 681 or 682 with a C or better; Pre/Co-requisite:SWG 680 with C or better
SWG	645	The Professional Experience III	240 hours of supervised social work practice. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	PRA	N	YGB	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW student; SWG 542 with a grade of Y OR MSW Advanced Standing student; co-enrolled in SWG 610 and SWG 693

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SWG	646	The Professional Experience IV	240 hours of supervised social work practice. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	PRA	N	YGB	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a student in either the Standard MSW or MSW Adv Standing; completed SWG 645 with a grade of Y; AND be co-enrolled in SWG 614, and SWG 693
SWG	650	Social Work Ethics/Law		N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	653	Introduction to Holistic Therapies	Provides advanced theoretical knowledge and family treatment models for the practice of social work with families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	653	Theory and Practice of Family Therapy	Provides advanced theoretical knowledge and family treatment models for the practice of social work with families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a student in either: MSW or MSW Adv Standing.
SWG	654	Introduction to Sexual Abuse	Develops general knowledge and skills for working with persons who have been impacted by sexual abuse.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	655	Quality of Life	Addresses key elements of a healthy life style contributing to wellness and disease through experiential learning and evidenced-based research.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	656	Treating the Whole Person	Addresses treating the "whole person's" physical and behavioral health through interviewing, intervention, and treatment within the context of an interdisciplinary model.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a graduate student
SWG	657	Ancient Healing Traditions	Historical development and research of the ancient healing teachings of traditional Chinese medicine, Aryurvedic medicine, homeopathic, naturopathic, and indigenous medicine and how they are used in today's health systems.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	660	Clinical Supervision in Social Work.	Examines and practices the knowledge, skills, and values of becoming a social work supervisor in human service agencies.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 681 or SWG 682 completed with a C or greater or currently enrolled; Pre or Co-requisite: SWG 623 with C or greater if completed
SWG	681	Social Work Administration	Administrative skill building and theory application within human service nonprofit social work settings.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG580 with a grade of C or greater
SWG	682	Community Participation Strategies	Reviews strategies to involve citizens and the consumers of social and human services in community decision-making systems. Participation is viewed as a means to facilitate the empowerment of oppressed peoples.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG580 with a grade of C or greater
SWG	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	685	Program Planning in Social Services	Social services planning process; includes needs assessment, goals and objectives, program design, budgeting, management information systems, and program evaluation.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 681, 682; Co requisite, SWG 523
SWG	686	Developing Grants and Fund Raising	Identifies potential funding sources, technical and interpersonal/political aspects of proposal development and fund raising.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisites: MSW or MSW Adv Standing student
SWG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		
SWG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: MSW or MSW Advanced Standing student
SWG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		

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SWG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		Pre-requisites: Must be a student in either: MSW or MSW Adv Standing
SWG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		
SWG	697	Special Topics in Working with Diverse Groups	Provides practice strategies for clients of specific marginalized groups; addresses access to resources; describes the larger political context and policy issues that impact the particular group.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	3.		
SWG	697	Special Topics in Working with Diverse Groups	Provides practice strategies for clients of specific marginalized groups; addresses access to resources; describes the larger political context and policy issues that impact the particular group.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	3.		
SWG	700	Research Methods	Course on research methods in a specific discipline.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	720	Philosophy of Science Issues in Social Work	Critical examination of social science, social work practice, and policy in terms of philosophical assumptions and varying frames of reference.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student.
SWG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-15		Pre-requisite: Master or Doctor Social Work student.
SWG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		
SWG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Social Work	1-15		Pre-requisite: Master or Doctor Social Work student.
SWU	171	Introduction to Social Work	Descriptive and historical perspectives of social problems, social justice issues and society's response to them.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & H	
SWU	171-W	Introduction to Social Work: Social Problems and Social Justice	Descriptive and historical perspectives of social problems, social justice issues and society's response to them.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & H	
SWU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	250	Stress Management Tools	Helps students develop an understanding and behaviors to create a healthy balance in their lives by studying the bio/psycho/social aspects of wellness.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	
SWU	291	Social Service Delivery Systems	Introduces federal and state social service delivery systems as well as private social service agencies. Explores purpose and structure of community resources. During the semester, students must complete 40 hours of service learning in a social agency.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 with a D or better or currently enrolled; Pre or Co-requisites: SWU 171 or SWU 271 (with a C or better if completed)
SWU	291-W	Social Service Delivery Systems	Introduces federal and state social service delivery systems as well as private social service agencies. Explores purpose and structure of community resources. During the semester, students must complete 40 hours of service learning in a social agency.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWU 171 with D or better or currently enrolled
SWU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	295	Foundations of Social Work Practice	Provides theoretical foundation and skill base necessary for social work interventions with individuals, small groups, and larger systems.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & C	Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 with a D or better; SWU 171 or 271 with C or better; SWU 291 with C or better
SWU	301-W	Human Behavior in the Social Environment I	Introduces interrelation of bio-psycho-sociocultural systems and their effect on behavior, birth-adolescence, focused on southwestern ethnic and cultural groups.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	L	Pre-requisites: PGS 101 with a C or better; SOC 101 or 301 with a C or better; SWU 171 or SWU 271 with a C or better; SWU 291 with a C or better; BIO 120, BIO 201 or LSC 365 with a C or better

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SWU	302	Human Biology for Social Workers	Overview of human anatomy and physiology, and the reciprocal relationship between physical and social environments. May be repeated for credit.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	303	Micro Human Behavior in the Social Environment	Human behavior in the social environment throughout the life cycle, analyzing theories of human development within an integrative multidimensional framework.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	L or SB	Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 completed with a D or greater or currently enrolled; Pre or Co-requisites: SWU 171, SWU 291 and SWU 295 (with a C or better if completed)
SWU	310	Social Work Practice I	Introduces social work methods, emphasizing the following skills: relationship development, cross-cultural interviewing, communication patterns, and case-recording.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWU 171 or SWU 271 with C or better; SWU 291 with C or better; SWU 295 with C or better; Pre or Co-requisite: SWU 303 (with C or better if completed)
SWU	310-W	Social Work Practice I	Introduces social work methods, emphasizing the following skills: relationship development, cross-cultural interviewing, communication patterns, and case-recording.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must have completed SWU 171 or 271 and SWU 291 with a grade of C or greater or be currently enrolled.
SWU	320	Research Methods in Social Work	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: student must have completed SWU310 with a grade of C or greater or be currently enrolled or enrolling during the same term
SWU	321	Statistics for Social Workers	Teaches social work students how to use and interpret descriptive and inferential statistics in social work practice. May be repeated for credit.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	CS	Pre-requisites: MAT 117 or an MA general studies course with D or better
SWU	331	Social Policy and Services I	History, philosophy, and values of social welfare; function and role of social welfare in society; development of the social work profession and practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	H	Pre-requisites: must be a Social Work student and have completed the following with a C or greater or be currently enrolled: ECN 111 or 211, POL 110 or POL 310 or POS 110 or POS 310, SWU 171 or SWU 271, and SWU 291.
SWU	331	Social Policy and Services I	History, philosophy, and values of social welfare; function and role of social welfare in society; development of the social work profession and practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	H	Pre-requisites: must be a Social Work student and have completed the following with a C or greater or be currently enrolled: ECN 111 or 211, POL 110 or POL 310 or POS 110 or POS 310, SWU 171 or SWU 271, and SWU 291.
SWU	332	Social Policy and Services	Contemporary social, political, and economic issues. Special emphasis on poverty and inequality in the Southwest. Analysis and development of social welfare policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: student must have completed SWU310 with a grade of C or greater or be currently enrolled/enrolling AND must have completed ECN111 with a grade of D or greater or be currently enrolled
SWU	337	Early Childhood Intervention	Explores how child development theory affects practice with children and families, emphasizing development of young children and early intervention.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	340	Macro Human Behavior in the Social Environment	Human behavior in the social environment, focusing on groups, organizations and communities and examining theoretical perspectives in a macro context	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	Pre-requisites: SWU 303 (SWU 301) with C or better; Pre or Co-requisite: SWU 310 (with C or better if completed)
SWU	374	Diversity and Oppression in a Social Work Context	Issues of social inequality related to race, ethnicity, gender, sexual orientation, and disability. Emphasizes populations of the Southwest.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	Pre/Co-requisite: SWU 310 with C or better if completed
SWU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		Pre-requisite: Master of Social Work student
SWU	402	Human Behavior in the Social Environment II	Sequel completing study of life span development and behavior which forms base for social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	Pre-requisites: SWU 303 with C or better
SWU	410	Social Work Practice II	Knowledge and skills in social work practice with individuals and families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Social Work undergraduate; SWU301 and SWU310 with C or better; PHI 101, 105 or 306 with D or better; Co-requisites: SWU 412 and SWU 413
SWU	410-W	Social Work Practice II	Introduces generalist social work; major areas of knowledge, values and skills basic to the social work helping process focused on individuals and families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-reqs: must be a Social Work student and be co-enrolled in SWU 412 & 413; and have completed the following with a C or greater or be currently enrolled: PHI 101 or PHI 306, SWU 301, and SWU 310.
SWU	411	Social Work Practice III	Knowledge and skills in social work practice with groups, communities, and organizations.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU414 and SWU415 AND must be a Social Work major or must have completed SWU410, SWU412, or SWU413 with a grade of C or greater or be currently enrolled
SWU	412	Field Instruction I	16 hours a week of supervised practice in an approved placement. "Y/E" grade only. fee.	N	PRA	N	YGB	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU410 and SWU413; must have completed SWU310 with C or better; Must be a Social Work major
SWU	412-W	Field Instruction I	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Social Work student; Co-requisites: SWU 410 and SWU 413
SWU	412-W	Field Instruction I	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Social Work student; Co-requisites: SWU 410 and SWU 413
SWU	413	Field Instruction Seminar	Field-focused seminar, including practice evaluation.	N	DIS	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU410 and SWU412; must have completed SWU301 and SWU310 with a grade of C or greater; AND must be a Social Work major
SWU	413	Field Instruction Seminar	Field-focused seminar, including practice evaluation.	N	DIS	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be co-enrolled in SWU 410 AND SWU 412
SWU	414	Field Instruction II	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: must be co-enrolled in SWU 411 and 415, and completed SWU 410 and SWU 413 with a grade of C or greater or be currently enrolled.
SWU	414	Field Instruction II	16 hours a week of supervised practice in an approved placement. Y/E grade only. fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Social Work student; SWU 410, SWU 412 or SWU 413 with C or better Co-requisites: SWU 411 and SWU 415
SWU	415	Field Instruction Seminar II	Field-focused seminar, including practice evaluation. 1.5 hours a week.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1.		Pre-requisites: must be co-enrolled in SWU 411 and 414, and have completed the following with a grade of C or greater or be currently enrolled: SWU 410, SWU 412, and SWU 413.

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SWU	415	Integrative Field Seminar	Field-focused seminar to help students integrate practice and theory.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite(s): Social Work student; SWU 410, SWU 412 or SWU 413 with C or better; Corequisite(s): SWU 411 and SWU 414
SWU	420	Practice-Oriented Research	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	420	Practice-Oriented Research	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must have completed SWU 301 with a C or greater or be currently enrolled; and completed CRJ 303 or EDP454 or JUS 302 or PSY 230 or QBA 221 or SBS 304 or SOC 390 or STP 226 or STP 220 with a grade of C or greater.
SWU	432	Social Policy and Services	Contemporary social, political, and economic issues. Special emphasis on poverty and inequality in the Southwest. Analysis and development of social welfare policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWU 303 with C or better
SWU	442	Introduction to Practice with Children and Families in Child Welfare	Focuses on the characteristics, strengths, and service needs of families and children in the Child Welfare System.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Social Work student and have earned C or better in SWU 410, 412, and 413 or be currently enrolled.
SWU	444	Issues in School Social Work	Demonstrates how community, family, and school are interdependent using an ecological metaphor, and introduces school social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Social Work student and have earned C or better in SWU 410, 412, and 413 or be currently enrolled.
SWU	455	Social Work Practice Skills with Latinos	Focuses on communication skills necessary and appropriate for social work practice with Spanish-speaking clients and their families. Credit is allowed for only SWU 455 or SWG 555.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	457	Southwest Borderland Immigration Issues	Reviews immigration history, trends, policies, and legislation. Focuses on immigrant experience from economic, educational, social, political, familial perspectives in Southwestern U.S. Credit is allowed for only SWU 457 or SWG 557.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	474	Ethnic/Cultural Variables in Social Work	Basic conceptual approach to understanding ethnic and cultural variables of southwestern ethnic minorities and how these factors influence social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	Pre-requisite: must have completed SWU 310 with a grade of C or greater or be currently enrolled
SWU	474	Ethnic/Cultural Variables in Social Work	Basic conceptual approach to understanding ethnic and cultural variables of southwestern ethnic minorities and how these factors influence social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	
SWU	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Social Work	1-6		
SWU	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Social Work	1-6		
SWU	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Social Work	1-6	L	Pre-requisite: must be an honor student
SWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-7		
SWU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-3		
SWU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-3		Pre-requisite: Bachelor of Social Work student
TA	488	Elem Air Transport		Y	LEC	Y	CNV	Ira A. Fulton Engineering	INACTIVE - Dept Aeronautical Management Technology	3.		
TCL	101	Introduction to Transborder Chicana/o and Latina/o Studies	Historical and contemporary issues in Chicana/o and Latina/o communities; focuses on the diverse economic, sociological, cultural, and political status.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	111	Introduction to Transborder Chicana/o and Latina/o Culture	Interdisciplinary analysis of customs, values, belief systems, and cultural symbols; special attention is given to cultural continuity and change.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	N	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-3		
TCL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	201	Transborder Society and Culture I: Interdisciplinary Approaches	Intensive overview of Mexican origin and Latina/o populations through various sociological, historical, anthropological, economic, political, cultural, literary, and analytical lenses.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		

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TCL	202	Transborder Society and Culture II: Contemporary Issues	Examines contemporary transborder belief systems, ideologies of health, gender, familial structures, and community development within a transnational context.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	
TCL	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	211	Transborder Chicano/a and Latino/a Poetry	Writing seminar on Chicana and Chicano poetics and intensive creative writing workshop.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	220	Transborder Chicano/a and Latino/a Cultural Expression	Interrelation among economic, social, and political status and forms of artistic expression; i.e., music, dance, drama, literature, and graphic arts.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	270	Race and Gender in American Film	Explores how Hollywood shapes perceptions of race and gender in American society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	Credit is allowed for only FMS 270 or TCL 270
TCL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	303	Transborder Theory	Studies historical, cultural, and economic theories contributing to understanding the emergence of Mexican and Latina/o origin populations in the Americas.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	304	Transborder Research Methods	Emphasizes critical skills: quantitative/qualitative, spatial, archival, and reflexive methodologies, including ethnographic, biographical, historical, and mapping.	N	RSC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	305	Transborder Practicum and Field Research.	Field work with faculty incorporating practical experience while honing research skills and ability.	N	FLD	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre or Co-requisites: TCL 303 and TCL 304 with a D or better if completed
TCL	310	Transborder Chicano/a and Latino/a Folklore of Southwest North America	Analyzes Chicana and Chicano folk beliefs, traditions, and practices.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	314	Transborder Regional Immigration and Economy	Historical/contemporary overview of Mexican immigration into and within the U.S.; factors affecting population movement, settlement patterns, and migrants' incorporation into society.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or SB) & H & C	
TCL	315	Chicana/o and Latina/o Family Structures	Traditional and changing family relationships; emphasis on gender and intergenerational relations and impact of modern society on traditional family values.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	
TCL	321	Transborder Community Development and Health	Emphasizes core concepts and practices relevant to regional community development and health, including demographic health indicators, individual, and community models.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites: TCL 101 with D or better or currently enrolled
TCL	323	Latino Health Issues	Health issues among Chicanos and other U.S. Latinos; interplay among political economy, health, family, culture, and community.	N	LEL	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	4.	SB & C	
TCL	326	Health of Chicanas and Latinas	Examines gender, ethnicity, and health; critical issues affecting health status of Chicanas and Latinas.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	Pre-requisites: TCL 101 with a D or better or currently enrolled
TCL	327	Health and Migration	Focuses on health status among various immigrants; health trajectories following migrations, adaptive behaviors, health practices, and the role of policy.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	Pre-requisites: TCL 201 with a D or better or currently enrolled
TCL	328	Latina/o and Latin American Religions and Cultures	Surveys the formative myths, rituals, and symbols and religious expressive cultures of U.S. Latinos and Latin Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	331	Mexican American History to 1900	Mexican American history from pre-Hispanic origins to frontier journeys north through 19th-century life in the U.S. Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & H & C	
TCL	332	Mexican American History Since 1900	Traces the formation of Mexican American communities across the rural and urban U.S. and examines 20th-century immigration from Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & H & C	
TCL	335	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites:Completed ENG 101 & ENG 102 with a grade of C or better. If credit has been received in HST 323 or AFR 335, you may not enroll in TCL 335
TCL	340	Chicana/o and Latina/o Politics and Policy	Historical/contemporary analysis of Chicana and Chicano political ideologies, attitudes, strategies, and movements; relations with governmental agencies; and public policy issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	
TCL	341	Policy Issues in Chicana/o and Latina/o Urban Settings	Historical, demographic, and sociological overview of the status of Chicanas and Chicanos in urban settings as well as the public policy relevance.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	342	Social Demographics of Latino Populations	Provides an introduction to social demography of Latinos in the U.S. from the 19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	
TCL	350	Transborder Mexican and Chicano/a Artistic Production	Overview of Mexican and Mexican American artistic production from colonial times to present; emphasis on religious and folk art.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C & G	
TCL	351	Transborder Chicano/a and Latino/a Art	Intensive analysis of contemporary Chicana and Chicano art movement as appraised within the context of contemporary American art and the art of Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	352	Chicana/o Film	Explores how Chicano and Chicana filmmakers have interpreted the Chicano experience through the medium of film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TCL	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	Pre-requisites:If you have credit for ENG 363, you may not enroll in TCL 363. Completed ENG 101, or ENG 107, or ENG 105 with a D or better or be currently enrolled
TCL	364	Transborder Chicana/o and Mexican Literature of Southwest North America Before 1917	Offers a historical panoramic view of the political, intellectual, social, economic, and artistic development of the Spanish-speaking people of the Southwest. May be taught in Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	Pre-requisites: SPA 314 or 316 with C or better
TCL	370	Signs of Aliens: Semiotics of Film and Popular Culture	Introduces semiotics and cultural studies; looks at various meanings ascribed to the sign of the alien.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU	
TCL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	410	Race, Medicine, and the Body	The ways in which medicine, disease, and health outcomes are affected by culture, gender, and social location.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L	
TCL	422	U.S.-Mexico Border Health	Focuses on identifying health issues affecting Latino/Mexican families in the U.S.-Mexico borderlands using basic epidemiological techniques to analyze regional data.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites: TCL 321 with D or better or currently enrolled
TCL	424	Theory and Practice of Community Development and Health	Foundations of methodology of community mapping and establishment of community diagnosis, media literacy and advocacy applications for community-based public health.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	Pre-requisites: TCL 321 completed with D or better or currently enrolled
TCL	443	Political Ecology of the Border	Using a political ecology approach, focuses on the creation of border communities of Southwest North America.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & G	
TCL	444	The Ethnography of Mexican Border Rural Settings	Focuses on the internal characteristics of a selected Mexican rural border towns and villages; analyzes the dynamics of development.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & G	
TCL	445	Transborder Latin American Short Story	Studies the modern Latin American short story, with primary focus on the development of its literary and cultural tradition. Uses a transregional and transborder approach, focusing on the interconnections of this modern genre across the borders of Spanish América. Takes a long historical view of the genre by reading representative stories of important literary movements and the aesthetic and cultural values they promoted and fostered.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L or HU	
TCL	446	Comparative Bilingual Latina/o Poetics	Comparative study of contemporary bilingual Latina/o poetry. Focuses on two specific U.S. ethnic ¿minority¿ groups--Mexican- (or Chicanos) and Puerto Rican-Americans (or ¿nuyoricans¿)--who have long and strong literary traditions of bilingual poetry. The significant feature of both bodies of poetry is the interactive mixture of their base languages: Spanish and English.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	
TCL	464	Latina/o Literature	Development of Latina/o literature. Study of genres and themes; attention to literary antecedents of the new U.S.-based Latina literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	Pre-requisites:If you have credit for FMS 464, you may not sign up for TCL 464
TCL	465	Chicana/o and Latina/o History on Film	Explore history on film; the processes, developing critical perspectives about historiography, and film in relation to U.S.-Mexican borderlands.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	Pre-requisites:Completed TCL 201 with a grade of D or better, or currently enrolled. May not enroll in TCL 465 if received credit for FMS 465
TCL	466	Constructing the Border on Film	Explores the U.S.-Mexico border on film, examining how border images have been constructed and shaped over time.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	470	Race, Sex, and Identity Online	Relying on critical and cultural theory, addresses the relationship between race, sex, and social identity online.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU	Pre-requisites: ENG 102, 105 or 108 completed with a C or better; You may not enroll in TCL 470 if you have credit for FMS 470
TCL	471	Latinos In Hollywood	Studies representations of Latinos in film; stereotyping, politics of metaphor, allegory, star discourse, self-representation, resistance, and independent film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-12		
TCL	485	Chicana and Latina Writers	Critical reading of Mexican American women authors; emphasis on contemporary (post-1970) poetry, novels, short stories, and essays.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	
TCL	488	Border Global Narratives	Studies four general and different border areas through literature. Through literary-cultural texts, looks into peoples¿ experiences of migration to and from the homelands of Mexico, Haiti, the Dominican Republic, Cuba, and the Puerto Rican isle to the U.S. These experiences are never uni-directional but are characterized by constant back-and-forth movement.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	
TCL	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-6		
TCL	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-6	L	Pre-requisites: Must be an Honors student
TCL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TCL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	N	LEC	Y	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-3		
TCL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TDM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students. Must have taken 25 or fewer semester hours. Consulting an academic advisor before enrolling is recommended.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
TDM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	205	Introduction to Travel and Tourism	Examines the components of the travel and tourism industry at the state, national, and global levels.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
TDM	210	Community Services and Professions	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: PRM 120 (or REC 120) with C or better if completed; must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-or co-requisites: PRM 120 (or REC 120) with a C or better if completed
TDM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-or Co-requisites: PRM 120 (or REC 120) with a C or better if completed
TDM	325	Tourism Accommodations	Local, national, and international overview of the lodging and food service industries.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have completed REC305 or TDM205 with a grade of C or better or be currently enrolled
TDM	345	Meeting and Convention Planning	Basic aspects and skills in planning meetings and conventions. Industry and market overview of certified meeting planners.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: REC 305 or TDM 205 with C or better
TDM	350	Tourism Marketing	Critical examination of marketing principles; applications to travel, tourism, and related industries in diverse settings, including local, national, and international.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: TDM 205 (REC 305) with a C or better or be currently enrolled; must have completed at least 45 hours
TDM	372	Tourism Planning	Applies economic and regional development concepts and theories to destination product development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: Tourism Development & Mgmt or Recreation (Tourism) students; TDM 205 (REC 305) & ENG 102 completed with a C or better or currently enrolled; 2.50 ASU GPA; 45 or more hours; MAT 142 or higher
TDM	386	Convention Sales and Management	The role of convention and visitors bureaus or resort managers, including economic impacts of markets, structure, governance, membership, and advertising.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
TDM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	401	Tourism Management	Principles of tourism administration and their successful application. Covers the topics on legal, financial, public relations, and human resources.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must be a Tourism Development & Mgmt or a Recreation (Tourism Management) student; Pre- or Co-requisite: TDM 372 (with a C or better if completed)
TDM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-or Co-requisites: TDM 401 or REC 462 (with a C or better if completed); must be a Tourism Development & Management or a Recreation (Tourism Management concentration)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TDM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre- or Co-requisites: TDM 401 (or REC 462) with a C or better if completed; must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	415	Tourism Transportation Systems	Examines the role of various modes of transportation in domestic and international tourism development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must have earned grade of C or better in REC305 or TDM205 or be currently enrolled.
TDM	448	Heritage and Cultural Tourism	Provides a solid conceptual understanding of the issues, problems, and management implications associated with heritage and cultural tourism.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or REC 120 with a C or better or be currently enrolled
TDM	458	International Tourism	Global examination of international tourism and its significance as a vehicle for social and economic development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
TDM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Prerequisites: TDM 402 (or REC 482) and TDM 403 (or REC 499 Pre Internship Workshop) with a C or better or currently enrolled; Must be a Tourism Development and Management or Recreation (Tourism concentration) student
TDM	480	Nature-Based Tourism	Examines the interaction of tourism with culture, natural environment, as well as the impacts of tourism on the environment.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or TDM 205 with a D or better or currently enrolled
TDM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
TDM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
TDM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
TDM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
TEL	501	Introduction to Research and Evaluation in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		

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TEL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
TEL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		
TEL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	683	Field Work	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	GRD	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	701	Assessment Policies, Issues, and Practices	Critical thinking about assessment data and other information sources to make inferences, judgments, and predictions about reality in schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	702	Dynamic Contexts of Education	Explores current ethical issues influencing leadership decisions with a focus on real problems in the educational setting.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	703	Innovation in Teaching and Learning	Development and psychological processes of human cognition, motivation, and performance applied to cognitively diverse, English language learners, adult professional development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	704	Leading Change in Educational Organizations	Develops understanding of dynamic and systemic nature of organizations, with emphasis on leadership for building organizational capacity and learning	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	711	Strategies for Inquiry	Develops knowledge and skills for research and program evaluation that foster innovation in education that leads to improved student learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	712	Mixed Methods of Inquiry	Methods for combining qualitative and quantitative inquiry in action research, evaluation, and data-based decision making.	N	SEM	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	713	Applied Mixed Methods of Inquiry	Data collection, analysis, interpretation in studies combining qualitative and quantitative inquiry in action research, evaluation, and data-based decision making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
TEL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		
TEL	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	795	Continuing Registration		N	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		
TEL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TEL	111	Exploration of Education	Education as an instrument in the development of the individual and society and its significance as an American Institution.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
TEL	111	Exploration of Education	Education as an instrument in the development of the individual and society and its significance as an American Institution.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
TEL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	212	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
TEL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	311	Instruction and Management in the Inclusive Classroom	Planning and delivering instruction, organizing and managing classrooms, and making adaptations for English language learners and students with special needs. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	311	Instruction and Management in the Inclusive Classroom	Planning and delivering instruction, organizing and managing classrooms, and making adaptations for English language learners and students with special needs. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	313	Educational Technology in the K-12 Curriculum	Applies and integrates educational technologies in all curricular areas; examines theoretical and practical issues for diverse learners. Fee.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	313	Educational Technology in the K-12 Curriculum	Applies and integrates educational technologies in all curricular areas; examines theoretical and practical issues for diverse learners. Fee.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	314	Classroom Assessment	Assessment and evaluation of student leaning; emphasizes integration and adaptation of curriculum, instruction, and evaluation of all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	314	Classroom Assessment	Assessment and evaluation of student leaning; emphasizes integration and adaptation of curriculum, instruction, and evaluation of all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
TEL	315	Child and Adolescent Development	Physical, cognitive, social, and emotional development during childhood and adolescence; developmentally appropriate principles and practices to facilitate development for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L or SB	
TEL	315	Child and Adolescent Development	Physical, cognitive, social, and emotional development during childhood and adolescence; developmentally appropriate principles and practices to facilitate development for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L or SB	
TEL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	396	Field Experience I	Observation in classrooms and individual and small group instruction. Fee.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
TEL	396	Field Experience I	Observation in classrooms and individual and small group instruction. Fee.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0.		
TEL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
TEL	492	Honors Directed Study		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
TEL	493	Honors Thesis		Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
TEL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
THA	101	Elementary Thai I	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose readings in Thai script. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
THA	102	Elementary Thai II	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:THA 101 with a grade of C or better
THA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
THA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THA	201	Intermediate Thai I	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:THA 102 with C or better
THA	202	Intermediate Thai II	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:THA 201 with a grade of C or better or currently enrolled
THA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
THE	307	Acting:		N	LEC	N	CNV	Herberger College of the Arts	School of Theatre and Film	3.		
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisite(s): non-Theatre and non-Film students only
THE	125	Orientation to Theatre and Film	Orientation to university and school resources and procedures. Career planning and guidance. Community-building exercises. Attendance and written response to performance and media events. Required for BA Theatre and BA Film (film and media production concentration) majors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisites: Theatre and Film students only
THE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THE	220	Principles of Dramatic Analysis	Analysis, evaluation, and interpretation of dramatic literature for theatrical production. Emphasizes the traditional canon of dramatic literature and traditional structures and forms of drama.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	L or HU	Prerequisites: Herberger Institute students in specific majors; Must have completed THE125 with a B or greater; Must have completed ENG101, 105 or 107 with a C or greater
THE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	301	Film: the Creative Process II	Advanced study of contemporary cinema history and film techniques; analyzes social changes in film, multicultural filmmaking, and the star system.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites:Must have completed FMP201or THE300 with a D or greater or be currently enrolled
THE	320	History of the Theatre I	Traces major developments in theatre production from its beginning to the 17th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites:Must have completed THE220 with a C or greater or be currently enrolled
THE	321	History of the Theatre II	Traces major developments in theatre production from the 17th century to modern times.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites: Must have completed THE220 and THE320 with a C or greater or be currently enrolled
THE	322	Theatre History and Culture	Critically examines major developments in theatre history, historiography, and dramatic literature. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites: Must NOT be a Theatre student
THE	325	Play Reading for Educational Theatre	Assigned independent readings in plays for secondary school play production.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisites: Must be a Theatre student
THE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	403	Independent Film	Examines the independent film movement from the French New Wave to contemporary independent filmmakers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	404	Foreign Films and Filmmakers	Films and filmmakers from Europe, Asia, Australia, the Far East, South America, and the Caribbean. Emphasizes cultural content and filmmaking philosophies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	G	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	405	Film: Great Performers and Directors	Examines processes and influences of one or more great film performers and/or directors. May be repeated for credit when topics vary. Fee (hybrid/Internet).	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites:Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	406	American Multicultural Film	Examines Native, African, Asian, and Latina and Latino American films and film artists in cinema history and production. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & C	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	421	Shakespeare: Stage and Film	Examines Shakespeare's plays as written texts, stage performances, and film productions. Focuses on play reading, performance analysis, and film critique. Online course.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Pre-requisites:ENG 102(or Eng 105, or 108) with a grade of D or better, or currently enrolled
THE	422	Latina and Latino Theatre	Readings, discussion, video of dramatic literature and production styles of Latina and Latino playwrights and theatre companies in the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: ENG 102, ENG 105 or ENG 108 with a C or greater or currently enrolled OR Theatre Masters students
THE	423	African American Theatre	Readings, discussion, video of the history and dramatic literature of African American playwrights and theatre companies in the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	C	Prerequisites: Must be a Masters student , or must have completed ENG102, ENG105, or ENG108 with a C or greater or be currently enrolled
THE	424	Trends in Theatre for Youth	Surveys the history, literature, and contemporary practices in theatre for youth.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THE	426	Pre-Columbian Theatre of the Americas	Selected studies in pre-Columbian theatre forms and texts of the Aztecs, Mayans, Caribbean islands, and North American Indians.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed ENG102, ENG105, or ENG108 with a C or greater or be currently enrolled OR be a Masters Theatre student
THE	430	History of Costume: Western Tradition	Studies major costume styles throughout history of Western civilization and how these fashions reflected society. Explores how styles can be used by theatrical costumers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THE	440	Experimental Theatre and Performance	Explores 20th-century modernist theatrical forms and movements and development of alternative strategies for analyzing contemporary theatre and performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Theatre undergraduate student; THE 220 and THE 320 with C or better
THE	480	Methods of Teaching Theatre	Applies materials, techniques, and theories for theatre with 9th- through 12th-grade students. Emphasizes curriculum development and praxis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Junior standing and above. Students who have credit for THE 581, may not enroll in THE 480
THE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		Pre-requisites: Must be a Fine Arts student; Must be an Honors student
THE	493	Honors Thesis		N	THE	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be a Fine Arts student ; Must be an Honors student
THE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-7		
THE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THE	500	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	504	Studies in Dramatic Theory and Criticism	Surveys dramatic theory, criticism, and aesthetics as they relate to contemporary performance.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THE	505	Critical Theory and Performance	Surveys contemporary theories of culture as they apply to theatre and performance studies.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THE	510	Studies in Literature	Assigned individual reading program in standard sources and masterpieces in theatre literature. May be repeated for credit.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisite: Must be a Theatre Education or Theatre for Youth student
THE	520	Theatre History and Literature	Surveys historiographical issues and dramatic literature related to key periods in theatre history.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THE	524	Advanced Studies in Theatre for Youth	In-depth study of the history, literature, and contemporary practice of theatre for young audiences.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must be a Theatre Education or Theatre for Youth student
THE	525	Advanced Studies in Theatre for Youth II	Project-oriented explorations of theory and practice of contemporary theatre for youth audiences.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: THE524 with a B or better
THE	562	Literary Management Workshop	Advanced literary management for the contemporary theatre, including trends in new play development, festivals and productions throughout the United States. Participation in Arizona Playwriting Competition.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: THP560 with a B or better
THE	581	Methods of Teaching Theatre	Applies materials, techniques, and theories for theatre with 9th- through 12th-grade students. Emphasizes curriculum development and praxis. Credit is allowed for only THE 581 or 480.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Must be a graduate student. Students who have credit for THE 480, may not enroll in THE 581
THE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Graduate student
THE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Art Theatre student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THE	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Pre-requisite: Must be a Theatre Education or Theatre for Youth student or have instructor approval.
THE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-15		
THE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-15		
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
THE	201	Film:Creat Procss I	Elements of the theatrical film: cinematography, sound, editing, directing, acting, scriptwriting, producing, and criticism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
THE	320-W	History of the Theatre	Traces major developments in theatre production from its beginning to the 17th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
THE	321	History of Theatre	Traces major developments in theatre production from the 17th century to modern times.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
THE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THE	420	History Am Theatre		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
THE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
THE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
THE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: You must NOT be in the following 3 Fine Arts Plans FATHEPREBA,FATHEBA, FATHESBA, or FATHEABA
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must NOT be a Theatre student
THP	102	Acting I: Fundamentals	Explores and applies basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student
THP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	201	Theatre Production Crew	Participation in university mainstage theatre production backstage and board operations.	N	LAB	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THP	202	Acting II: Scene Study	Rehearsal techniques and application of action to dramatic text. Emphasizes realistic drama.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP101 or THP102 with a B or greater or be currently enrolled; must have completed THE220 with a C or greater or be currently enrolled ;Corequisite: THE220
THP	213	Introduction to Technical Theatre	Procedures of technical theatre production and demonstration. Topics include design and construction of scenery, lighting, and properties. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	4.		Prerequisites:Must be a Theatre student
THP	214	Introduction to Costuming	Basic principles of costume design, construction, and survey of selected historical periods including makeup styles. Costume design project and production experience. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	4.		Prerequisites:Must be a Theatre student
THP	218	Directing I: Introduction to Directing	Overview of emergence and practice of the director's craft. Explores director's role and responsibilities, play selection, conceptualizing, ground plans, blocking. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Fine Arts Theatre student; THE 220 AND THP 102 with a C or greater .
THP	251	Student Production Board	Performing arts entrepreneurship taught through the experience of operating a student-produced theatre company.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	260	Introduction to Playwriting	Basic skills of playwriting including exercises in monologues, scenes, and conflict and resolution, leading to completion of a one-act play.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG101,105 OR 107 with a C or greater or be currently enrolled
THP	261	Introduction to Screenwriting	Basic skills of screenwriting including exercises in conflict and resolution, plot points, and theories of three-act structure and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG101,105 OR 107 with a C or greater or be currently enrolled
THP	272	Acting: Introduction to Movement	Movement vocabulary and physical training in relaxation, alignment, conditioning, and stage presence. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP101 or THP102 with a B or greater or be currently enrolled
THP	277	Acting: Introduction to Voice	Exercises and techniques to free the voice and improve quality and projection. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP101 or THP102 with a B or greater
THP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	301	Theatre Production	Participation in university mainstage theatre productions (e.g., acting, construction, stage management).	Y	LAB	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-2		Prerequisites:Must have completed THP213 or THP214 with a C or greater or be currently enrolled
THP	302	Acting III: Advanced Techniques	Advanced practice in methods, skills, and research for rehearsal and performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 101 (or THP 102), THP 202, THP 272, THP 277 and THE 220 with C or better
THP	307	Acting: Research and Performance	Acting in theatre projects, productions, or collaborative performances in directing classes.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisites:Must have completed THP101 or THP102 with a C or greater or be currently enrolled.
THP	311	Improvisation with Youth	Basic materials, techniques, and theories for facilitating improvisational drama with children and youth. Not open to freshmen.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Academic Level must not equal Freshman
THP	311	Improvisation with Youth	Basic materials, techniques, and theories for facilitating improvisational drama with children and youth. Not open to freshmen.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must NOT be a Freshman student
THP	312	Puppetry with Children	Construction and manipulation of puppets; practice in performance skills. Emphasizes educational and recreational uses of puppetry by and with children. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Academic Level must not be equal to Freshman or Sophomore
THP	312	Puppetry with Children	Construction and manipulation of puppets; practice in performance skills. Emphasizes educational and recreational uses of puppetry by and with children. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must NOT be a Freshman or Sophomore student
THP	313	Fundamentals of Design	Art and practice of scenic, costume, and lighting design for the theatre and the media.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP213 or THP214 with a C or greater or be currently enrolled
THP	317	Stage Management	Readings in stage management and participation as a stage manager in a university theatre production.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student; Corequisite: THP301
THP	318	Directing II: Intermediate Directing	Explores approaches to staging and composition. Studio work culminates in presentation of a fully rehearsed ten-minute play.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP218 AND THP213 or THP214 with a C or greater or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THP	320	Acting: Solo and Collaborative Performance	Creation and development of original performance art works combining text, movement, multimedia, visual art; the actor as writer, designer, performer.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	322	Acting: Voice-Overs and Radio Drama	Applies effective vocal techniques to commercials, books on tape, radio dramas. Preparation of audition tape, performance in radio drama.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	331	Costume Construction	Uses of materials and techniques for stage costumes with actual construction of period apparel. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP214 with a C or greater or be currently enrolled.
THP	340	Scene Design	Studio projects in designing scenery for contemporary stages. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must have completed THP 213 with a grade of C or greater and THE 220 with a grade of C or greater or be currently enrolled.
THP	345	Lighting Design	Principles and theory of stage lighting design, including design process and execution, equipment, and light plots. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Sophomore standing or above
THP	350	Sound Design	Introduces the equipment, process, and recording techniques used in sound design for the theatre. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a BA Theatre major OR a Fine Arts BFA student
THP	360	Intermediate Playwriting	Continued development of skills in playwriting through specific exercises and completion of a full-length play.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed ENG210 or THP260 with a C or greater
THP	361	Intermediate Screenwriting	Character and dialogue development, choosing correct structure, importance of subplots, developing a story into a completed thirty-page screenplay.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 261 with D or better or currently enrolled
THP	372	Acting: Advanced Movement	Movement techniques for the classical and nonrealistic theatre.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP272 with a B or greater or be currently enrolled; must be junior academic level or higher
THP	377	Acting: Voice and Speech	Introduces phonetic alphabet, exercises, and techniques for voice and speech improvement. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP277 with a B or greater or be currently enrolled; Junior academic level or higher
THP	378	Acting: Stage Dialects	Major dialects needed for actors; techniques for researching and learning dialects; phonetic analysis of dialects.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP377 with a B or greater or be currently enrolled; Junior academic level or higher
THP	385	Acting: Classical and Poetic Drama	Rehearsal and performance of Shakespeare and other classical playwrights. Emphasizes understanding poetic language, vocal and physical skills.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP277 with a B or greater or be currently enrolled
THP	386	Acting: the Meisner Approach	Improvisations and exercises developed by Sanford Meisner applied to scene work.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP 101 or THP 102 with a B or greater or be currently enrolled
THP	387	Acting: TV and Film	Professional television and film acting techniques, terminology, and on-camera experience. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP101 or THP102 with a B or greater or be currently enrolled OR must be a Film and Media Production student.
THP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	401	Theatre Practicum	Production assignments for advanced students of technical production, stage and business management, and design.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-2		Prerequisites: THP 301 with a C or better, or Master of Arts or Master of Fine Arts student
THP	406	Advanced Scenography	Process of production collaboration among scenographers, directors, and playwrights. Taught in conjunction with THP 519.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master in Fine Arts student; THP 340 plus one of the following: THP 214, THP 313, or THP 345 completed with a C or better
THP	411	Methods of Teaching Drama	Applies materials, techniques, and theories with grades K-8 youth. Regular participation with children.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Graduate student OR must have completed THP311 with a C or greater or be currently enrolled
THP	418	Directing III: Advanced Directing	Studio work building on skills learned in intermediate directing, culminating in the presentation of a fully rehearsed one-act play.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 318 with a C or greater or be currently enrolled OR Herberger Master of Art or Master of Fine Arts students
THP	428	Theatre and the Future	Senior projects course that includes a culminating creative synthesis of student's knowledge.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre student in specific plans ; Must have completed THE440 AND THP201 or THP301 with a C or greater
THP	430	Costume Design	Principles of costume design with projects in both modern and period styles. Includes budgets and fabric/pattern estimates.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre Scenography or Performance Design student OR must have completed THP214 with a C or greater or be currently enrolled
THP	431	Advanced Costume Construction	Specialized training in costume construction problems and crafts with projects in tailoring, millinery, and period accessories.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP214 AND THP331 with a C or greater or be currently enrolled in both OR must be a Theatre Scenography or Performance Design student
THP	435	Advanced Technical Theatre	Selection of materials, drafting of working drawings, tool operation, and construction techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 AND THP345 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	440	Advanced Scene Design	Advanced studio projects in designing scenery for a variety of stage forms. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	441	Scene Painting	Studio projects in painting stage scenery. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	442	Drawing	Techniques in drawing and rendering for scenic, costume, and lighting design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre student
THP	444	Drafting for the Stage	Fundamentals of and practice in graphic techniques for the stage. Introduces computer-aided design for the stage. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP213 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	445	Advanced Lighting Design	Specialized techniques in stage lighting. Advanced application of design process, graphic techniques of design presentation, and use of qualities of light. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP345 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student AND have completed THP444 with a B or greater or be currently enrolled

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THP	450	Theatre Organization and Management	Overview of nonprofit arts: organizational design, strategic planning, financial management, and leadership.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre student
THP	451	Student Production Board	Performing arts entrepreneurship taught through the experience of operating a student-produced theatre company.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 450 with a grade of D or better, or co-enrolled
THP	460	Advanced Playwriting	Practice and study of creating characters, dialogue, scenes, plays, and monologues for the stage, culminating in a full-length script.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Fine Arts BFA student; Must have completed THP360 with a C or greater or be currently enrolled
THP	461	Scripts in Progress	Studio work with the instructor, centered on revisions of original plays.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must have completed THP460 with a C or greater or be currently enrolled
THP	481	Secondary School Play Production	Methods of directing, designing, and coordinating play production experiences at the secondary school level.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	482	Theatre for Social Change	Interactive theatre techniques (e.g., Boal, drama therapy, playback theatre) to examine and combat institutional, social, cultural, interpersonal, and personal oppressions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	C	Prerequisite: Must be a sophomore academic level or higher
THP	483	Acting: Viewpoints and Composition	Training in Anne Bogart's viewpoints and composition techniques; application to rehearsal and performance, and creating new work.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: THP 202 with C or better or currently enrolled; Junior academic level or higher OR Master of Fine Arts student
THP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre or Film student
THP	489	Acting: Audition Techniques and Career Development	Familiarization with the business of performance: preparation and techniques for auditioning; self-promotion and marketing strategies; grant resources, interviews, and unions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP 101 or THP 102 and THE 220 with a B or greater; Junior academic level or higher
THP	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		
THP	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be an Honors student
THP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-7		Prerequisites: Must be a Theatre student
THP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THP	501	Performance: Solo Performance	Students begin to define their mission in art. Emphasizes the actor as a solo storyteller, speaking as herself or himself.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Prerequisites: Master of Arts or Master of Fine Arts Theatre student
THP	502	Graduate Acting	Understanding and analyzing scripts and performance in order to be an effective actor/storyteller who speaks as a character. Projects focus on solo, duet performances. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Arts or Master of Fine Arts Theatre student
THP	503	Performance: the Ensemble	Ensemble, working with a playwright, creates a play that addresses social issues through improvisation and community input.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Prerequisites: Masters of Art or a Masters of Fine Art Theatre student
THP	504	Acting: Styles	Fundamentals including combat, scansion, poetic language, acting style. Scene study, ensemble performance projects focused on Shakespeare, new scripts. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Pre-requisites: THP 503 with a D or better
THP	505	Graduate Colloquium	Orientation to graduate study of theatrical practice; cohort development, introduction to the advanced literature and media in the art form.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Pre-requisites: Master of Fine Art Theatre student
THP	506	Design Collaboration	Process of production collaboration. Taught in conjunction with THP 519. May be repeated for credit. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Arts or Master of Fine Arts Theatre student;
THP	507	Acting: Advanced Research and Performance	Acting in advanced theatre projects, productions, or collaborative performance in directing classes. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisite: Must be a Master, Master of Fine Arts or PhD student
THP	509	Singing for Actors	Introduces the basics of singing technique. Breath control, resonance, articulation, exploration, and expansion of singing range. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisite: Must be a Master or Master of Fine Arts or PhD student
THP	511	Methods of Teaching Drama	Applies dramatic materials, techniques, and theories with grades K-8 youth. Regular participation with children. Credit is allowed for only THP 511 or 411.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	512	Puppetry Workshop	Surveys puppetry in education, puppetry as an art form in design and performance. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Graduate student
THP	514	Projects in Community-Based Drama	Theories and techniques of improvisational theatre with emphasis on youth. Stresses professional development through projects combining research, theory, and practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must be a Master, Master of Fine Arts or PhD student
THP	518	Advanced Directing Lab	Active discovery of directing concepts through practical exercises and collaboration; deconstruction of contemporary/classic literature. Explores director as primary artist.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Arts, Master of Fine Arts, or PhD Theatre student

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THP	519	Directing: Works in Progress	Advanced projects in directing concentrating on a collaborative process among director, playwright, actors, and designers. Focuses primarily on new scripts or adaptations of literature. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	520	Directing the New Play	Advanced methods and studies in directing, focusing on new play development.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	521	Performance I: Acting and Movement	Advanced studio work in the performer's body, voice, emotion, and imagination; emphasizes physical diagnostics and development.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	522	Performance I: Acting and Voice	Advanced studio work in the performer's voice; emphasizes physical awareness, vocal anatomy, training, and interpretation of texts.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	523	Performance II: Acting and Movement	Advanced studio work in the performer's body, voice, emotion, and imagination.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	524	Performance II: Acting and Voice	Advanced studio work in the performer's voice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	525	Design I: Conceptualization and Collaboration	Conceptual structures of the design process in theatre; development of creativity, flexibility, and communication in the collaborative process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	526	Design I: Drawing and Rendering	Development of drawing and rendering skills, techniques, and evaluation in the presentation, realization, and communication of performance design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	527	Design II: Conceptualization and Collaboration	Readings and research in stage management and participation as a stage manager in a university theatre production	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	528	Design II: Visualization and Presentation	Advanced skills and techniques in rendering, visualizing and presenting design ideas and materials for performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	529	Viewpoints and Composition		N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	530	Advanced Costume Design	Advanced studio projects in costume design for a variety of production forms.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Art or Master of Fine Arts Theatre student
THP	540	Scene Design Applications	Conceptual and practical application of the design process including graphic and sculptural projects. Practical design problems investigated in a lab. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Art or Master of Fine Art Theatre student
THP	545	Lighting Design Applications	Advanced studio projects in stage lighting design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Fine Arts Theatre student
THP	555	Media Design Applications	Advanced applications for skills and practices in media design for live performance, including content creation, systems design, and playback.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	556	Performance Technology		N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	560	Playwright's Workshop	Practice and study of creating characters, dialogue, scenes, plays, and monologues for the stage.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Art Theatre student
THP	561	Scripts in Progress	Studio work with the instructor centered on revisions of original plays.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	582	Theatre for Social Change	Advanced, interactive theatre techniques (e.g., Boal, drama therapy, playback theatre) to examine and combat institutional, social, cultural, interpersonal, and personal oppressions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Fine Arts Theatre student
THP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Theatre Master student
THP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Pre-requisites: Fine Arts Graduate student
THP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Fine Arts Graduate student
THP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Art or Dramatic Writing Theatre student
THP	611	Research in Drama Education	Current research practices in drama education. Development and execution of research projects in ethnographic and arts-based models.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Fine Arts or PhD Theatre for Youth student
THP	618	Theatre for Youth Practicum	Practical experience in theatre for youth projects: improvisation, education, production.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	2-3		Prerequisites: Master of Fine Arts or PhD Theatre for Youth student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THP	649	Design Studio	Projects include design of scenery, costume, lighting, or sound for lab or mainstage productions.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisites: Master of Fine Arts Theatre student
THP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Fine Arts or PhD Theatre student
THP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TMC	233	Desktop Publishing and Infographics	Introduces software and hardware used for desktop publishing and infographics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
TMC	331	Quality Assurance	Instrumentation and methodologies for materials testing and quality control in various manufacturing processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or better in ABS350 or APM301 or QBA221 or STP420 or be currently enrolled.
TMC	346	Management Dynamics	Management challenges and the leadership skills needed to achieve organizational objectives in the changing industrial and technical environments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	396	Professional Orientation	Senior advising, industry presentations, and career counseling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Prerequisites: Must be at least a Junior AND be a Tech Sci BAS or BS student.
TMC	470	Project Management	Introduces techniques for managing small groups within larger organizations, including team building, motivating, planning, tracking activities, and computer tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Technology & Innovation BAS student OR IMC 346, IST 346, MGT 301 or TMC 346 with D or better and APM 301 or STP 420 with D or better. If you have credit for OMT 570, you may not enroll in TMC 470.
TMC	480	Senior Project	Capstone project experience refining skills in communication, research and information retrieval, critical analysis and criticism, and demonstrating technical competence in each student's area of study. Prerequisite: senior standing in DTM.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
TMC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		Prerequisites: Must be a Tech Sci/Engr: NonDegree or BAS or BS or MS or MS Tech Plan AND have a 2.25 GPA or better.
TMC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		Prerequisites: Must be a Tech Sci: BAS or BS AND have 3.00 GPA or better.
TMC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TMC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		Pre Requisites: Graduate or Non Degree Students Only
TMC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TRC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
TWC	200	Impact of Communications Technology on Society	Organizational issues and development of technical communication. Activities include research, evaluations, and presentation of oral arguments in support of positions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have earned C or better in ENG 102, 105, or 108 or be currently enrolled
TWC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TWC	301	General Principles of Multimedia Writing	Introduces writing in a variety of media, understanding the consequences of integrating media, and effective editing techniques.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	347	Written Communication for Managers	Introduces strategies, formats, and techniques of presenting information to business and other workplace audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	400	Technical Communications	Planning and preparing technical publications and oral presentations based on directed library research related to current technical topics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: College of Technology and Innovation BS or BSE student; senior academic level; 2.25 minimum cumulative GPA; ENG 102, 105 or 108 with C or better
TWC	401	Principles of Technical Communication	Basic information design principles to produce effective written, oral, and electronic technical communication. Understanding of rhetorical and audience analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: If you have credit for TWC 501, you may not enroll in TWC 401
TWC	403	Writing for Professional Publication	Analyzes the market and examines the publication process, including the roles of the author, editor, and reviewer.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	411	Principles of Visual Communication	Basic principles of visual communication in print and electronic media. Understanding graphic and document design, including typography and color.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Students who have credit for TWC 511, may not enroll for TWC 411
TWC	421	Principles of Writing with Technology	Understanding historical and social impact of technology on writing, with emphasis on multimedia design, computer-mediated communication, and hypertext.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: If you have credit for TWC 521, you may not enroll in TWC 421
TWC	431	Principles of Technical Editing	Basic principles of technical editing (for print and electronic media) including copyediting, reviews, standards, style, and project management.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: May not enroll in TWC 431, if credit received in TWC 531
TWC	443	Proposal Writing	Develops persuasive strategies and themes for researching and writing professional proposals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have taken TWC 543, you may not enroll in TWC 443
TWC	444	Manual and Instructional Writing	Design and development of a user manual, writing instructions, improving graphics and page design, and usability testing.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have credit for TWC 544, you may not enroll in TWC 444
TWC	445	Computer Documentation	Introduces writing documentation for the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you received credit for TWC 545, you may not enroll in TWC 445
TWC	446	Technical and Scientific Reports	Introduces strategies, formats, and techniques of presenting information to technical and scientific audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: If you have credit for TWC 546, you may not enroll in TWC 446
TWC	451	Copyright and Intellectual Property in the Electronic Age	Explores issues related to copyright and intellectual property laws, with emphasis on electronic environment. Credit is allowed for only TWC 451 or 551.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have credit for TWC 551, you may not enroll in TWC 451
TWC	452	Information in the Digital Age	Explores the creation, organization, dissemination, and use of information; the impact of technologies; and surrounding economic, legal, and social issues.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for TWC 552, may not enroll in TWC 452
TWC	453	Information and Communications Technology in American History	Explores the historical development of information and related technologies in the United States from colonial times to the present. Credit is allowed for only TWC 453 or 553.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have credit in TWC 553, you may not enroll in TWC 453
TWC	454	Information Technology and Culture	Explores the historical impact and intersection of communications technology and culture in America. Credit is allowed for only TWC 454 or 554.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	C	Pre-requisites: If you have credit for TWC 554, you may not enroll in TWC 454
TWC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TWC	490	Capstone	Development of a professional portfolio, creation of a culminating document, and synthesis of undergraduate experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	492	Honors Directed Study		N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-6		
TWC	493	Honors Thesis		N	LEC	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
TWC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TWC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
TWC	501	Principles of Technical Communication	Basic information design principles to produce effective written, oral, and electronic technical communication. Understanding of rhetorical and audience analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 501 who have credit in TWC 401
TWC	503	Writing for Professional Publication	Analyzes the market and examines the publication process, including the roles of the author, editor, and reviewer.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	511	Principles of Visual Communication	Basic principles of visual communication in print and electronic media. Understanding graphic and document design, including typography and color.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 511 who have credit in TWC 411
TWC	521	Principles of Writing with Technology	Understanding historical and social impact of technology on writing, with emphasis on multimedia design, computer-mediated communication, and hypertext.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 521 who have credit in TWC 421
TWC	531	Principles of Technical Editing	Basic principles of technical editing for print and electronic media, including copyediting, reviews, standards, style, and project management.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 531 who have credit in TWC 431
TWC	543	Proposal Writing	Develops persuasive strategies and themes for researching and writing professional proposals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 543 who have credit in TWC 443
TWC	544	Manual and Instructional Writing	Design and development of a user manual, writing instructions, improving graphics and page design, and usability testing.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 544 who have credit in TWC 444
TWC	545	Computer Documentation	Introduces writing documentation for the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 545 who have credit in TWC 445
TWC	546	Technical and Scientific Reports	Introduces strategies, formats, and techniques of presenting information to technical and scientific audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 546 who have credit in TWC 446
TWC	547	Business Reports	Introduces strategies, formats, and techniques of presenting information to business and other workplace audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	551	Copyright and Intellectual Property in the Electronic Age	Explores issues related to copyright and intellectual property laws; emphasizes electronic environment. Credit is allowed for only TWC 551 or 451.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 551 who have credit in TWC 451
TWC	552	Information in the Digital Age	Explores the creation, organization, dissemination, and use of information; the impact of technologies; and surrounding economic, legal, and social issues. Credit is allowed for only TWC 552 or 452.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 552 who have credit in TWC 452
TWC	553	Information and Communications Technology in American History	Explores the historical development of information and related technologies in the United States from colonial times to the present. Credit is allowed for only TWC 553 or 453.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 553 who have credit in TWC 453
TWC	554	Information Technology and Culture	Explores the historical impact and intersection of communications technology and culture in America. Credit is allowed for only TWC 554 or 454.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
UET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
UET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	305	Introduction to Microelectronics	Quantifies the role of microelectronics technology and its associated skills as drivers for electronics systems development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisite: Academic Level greater than or equal to Junior

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UET	331	Electronic Materials	Physical, chemical, electromagnetic, and mechanical properties of electronic materials. Solid-state device characteristics and their material properties.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be in Tech Sci/Engr: BS or BSE; 2.5 GPA or better; D or better in CHM113, EET208, PHY112, PHY114 or be currently enrolled in OR Tech Sci/Engr: Appl Bio Sys, BAS, MS, MS Tech, PhD
UET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	411	Layer Deposition Technology	Fundamentals, applications, and vacuum technology of layer deposition processes used in IC fabrication. Credit is allowed for only UET 411 or 511.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Tech Sci/Engr :MS or MS Tech, BAS, BS, BSE AND have a C or greater in UET331 AND UET417 or be currently enrolled in or Co-enrolled UET331 and UET417.
UET	415	Electronic Manufacturing Engineering Principles	Electronic equipment design and fabrication principles and practice. Completion of electronics hardware design project and report.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2-3		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; Minimum 2.25 GPA; OR Technology and Innovation or Fulton Engineering graduate student
UET	416	Dopant Control Technology	Design and practical realization of charge distribution in microelectronic devices, including ion implantation and diffusion processes. Credit is allowed for only UET 416 or 516.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; UET331 and UET417 with C or better or Corequisite: UET417 OR Technology and Innovation or Fulton Engineering graduate student
UET	417	Semiconductor Technology Practice	Lab-based design and execution of safe and effective semiconductor fabrication operations.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	418	Systems on Silicon	Factors that drive integration on silicon, including logic, memory, and interfaces. Economics of system-level solutions. Credit is allowed for only UET 418 or 518.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25 OR Technology and Innovation or Fulton Engineering graduate student. Students who have credit for UET 518, may not enroll in UET 418
UET	421	IC Device Characterization	Design and operation of the major classes of semiconductor devices. Characterization by parameters and their extraction. Future technology trends.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Have received a C or greater in UET331 or be currently enrolled AND be a Tech Sci: BAS or BS or MS or MS Tech or Grad Non Degree
UET	424	Pattern Transfer Technology	Maskmaking, lithography, and etch processes for integrated circuit fabrication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be in a Tech Sci Graduate Plan: MS or MS Tech AND have a C or greater in UET417, OR Corequisite: UET417; you may not enroll in UET 424 if you have credit in UET 524
UET	426	Software Tools for the Semiconductor Industry	Introduces software tools commonly used in the semiconductor industry, such as SUPREM IV, PSPICE, VIEWLOGIC, and ICED.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	432	Semiconductor Packaging and Heat Transfer	Packaging theory and techniques; hermetic and plastic assembly; thermal management; electrical characteristics and reliability.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25 OR Technology and Innovation or Fulton Engineering graduate student: credit allowed for either UET 432 or UET 532 only
UET	437	Process Control and Validation	Statistical process control and its application to IC fabrication. Design, control, and performance validation techniques throughout the manufacturing process. Lecture with Web support. Prerequisite: 300-level statistics course.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Technology and Innovation or Fulton Engineering graduate student; UET 417 with C or better or Co-enrolled: UET417
UET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
UET	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-6		
UET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
UET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25 OR Technology and Innovation or Fulton Engineering graduate student
UET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; Minimum 2.25 GPA; OR Technology and Innovation or Fulton Engineering graduate student
UET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
UET	511	Layer Deposition Technology	Fundamentals, applications, and vacuum technology of layer deposition processes used in IC fabrication. Credit is allowed for only UET 511 or 411. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	516	Dopant Control Technology	Design and practical realization of charge distribution in microelectronic devices, including ion implantation and diffusion processes. Credit is allowed for only UET 516 or 416.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	518	Systems on Silicon	Factors that drive integration on silicon, including logic, memory, and interfaces. Economics of system-level solutions. Credit is allowed for only UET 518 or 418.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better. Students who have credit for UET 418, may not enroll in UET 518

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
UET	521	Device Physics	Band structure of solids, electron hole-pairs, mobility, lifetime, fermilevel, pn junctions, diodes, and bipolar and MOS transistors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Grad or Non Degree Grad student; 3.0 GPA or better, OR Senior level; Tech Sci student; 3.0 GPA or better
UET	524	Pattern Transfer Technology	Maskmaking, lithography, and etch processes for integrated circuit fabrication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for UET 424, may not enroll in UET 524
UET	532	IC Packaging	IC packaging theory and techniques; assembly techniques, material issues; thermal management; electrical performance and reliability.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad and have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better. You may not enroll in UET 532 if you have credit for UET 432
UET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UNI	100	Academic Success at the University	Orientation to campus resources, study skills, and other academic and social issues for college students. Introduces an understanding of human diversity, values, and perspectives as they relate to student success.	N	LEC	N	OPT	University College	Dean, University College	3.		
UNI	101	Student Success Seminar	Understanding human diversity, perspectives, and values as they relate to student success. Orientation to ASU resources, study skills, and academic and social issues for students. Seminar, discussion.	N	SEM	N	OPT	University College	Dean, University College	1.		
UNI	150	Major and Career Exploration	Concepts and skills in the process of selecting a major: self-assessment, research, interviewing, and decision making. Exploration of ASU opportunities and investigation of career options.	N	DIS	N	OPT	University College	Dean, University College	1.		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		
UNI	250	Choosing a Major	Advanced, one-hour career development course helps students make a thoughtful selection of major and consider the career direction that fits best for them. Students complete advanced assessments of interests, personality, and values; investigate relevant majors and careers, including connecting with working professionals; learn effective decision-making strategies; identify barriers and resources; and make connections to new major department.	N	DIS	Y	OPT	University College	Dean, University College	1.		Pre-requisites: UNI 150 Career Exploration with a C or better
UNI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
UNI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	University College	Dean, University College	1-12		
UNI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	110	Critical Reading and Thinking	Prepares students to be successful in college-level academics and helps them improve their critical reading and critical thinking skills.	N	LEC	N	OPT	University College	University Academic Success Programs	3.		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	University Academic Success Programs	1-4		
UNI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	University Academic Success Programs	1-4		
URB	100	Introduction to Urban and Metropolitan Studies	Introduction to study of urban governance. Explores city, civil society, and urban form from different cultures and historical periods. Credit is allowed for only URB 100 or 300.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	C	
URB	105	Introduction to Urban Governance	Introduces American city growth from past to present. Examines the background of major urban issues emphasizing governance, management, and policy. Credit is allowed for only URB 105 or 305.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	220	Introduction to Urban America	Investigates traditional and evolving forms of civic engagement and management. Examines leadership and organizational models to urban development and decision making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	240	Urban Policy	Examines major theories about the purposes and processes of urban policy formulation, adoption, and implementation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	C	
URB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	300	Urban and Metropolitan Studies	Examines the city using a multidisciplinary approach drawing from different historical, cultural, social, philosophical, and economic issues and concepts. Credit is allowed for only URB 300 or 100.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	301	Urban Research	Introduces the philosophy, scope, and methods of urban affairs research. Includes an overview of quantitative and qualitative methods and research design.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	302	Urban Theory	Examines the sociological, economic, and political theoretical positions underlying the development and evolution of metropolitan areas.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	305	Urban Governance	Examines major shifts and trends in urban America. Concentrates on the changing approaches to governance and policies of urban areas. Credit is allowed for only URB 305 or 105.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	400	Senior Professional Seminar	Demonstrates completion of the urban studies program by synthesizing and applying core knowledge, skills, and abilities to significant urban issues.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	410	Urban Leadership and Collaborative Skills	Emphasizes the changing roles of leadership and collaboration in a complex, diverse, and dynamic urban environment.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
URB	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Public Affairs	1-6	L	Pre-requisites: Must be an Honors student
URB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
USL	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in multiple discipline areas. Requires weekly reflective reading and writing. Fee.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
USL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
USL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
VTN	101	Elementary Vietnamese I	Basic skills in modern conversational Vietnamese and development of basic reading and writing skills, with special emphasis on tones.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
VTN	102	Elementary Vietnamese II	Basic skills in modern conversational Vietnamese and development of basic reading and writing skills, with special emphasis on tones.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:VTN 101 with C or better
VTN	201	Intermediate Vietnamese I	Improves speaking, listening, reading, and writing competence through dialogues, reading passages, pattern drill, and grammar and communicative exercises.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:VTN 102 with a grade of C or better or currently enrolled
VTN	202	Intermediate Vietnamese II	Improves speaking, listening, reading, and writing competence through dialogues, reading passages, pattern drill, and grammar and communicative exercises.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:VTN 201 with a grade of C or better or currently enrolled
VTN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	321	Advanced Vietnamese and Literature I	Readings from modern, contemporary, and folk literatures as well as current periodicals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:VTN 202 with a grade of D or better, or currently enrolled

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VTN	322	Advanced Vietnamese and Literature II	Continuation of VTN 321. Readings from modern, contemporary, and folk literatures as well as current periodicals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:VTN 322 with a grade of D or better, or currently enrolled
VTN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WAC	107	Introduction to Academic Writing for International Students	For students from non-English-speaking countries. Combines classroom and supplemental instruction with intensive reading, writing, and discussion.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: TOEFL score of 0-559, ACT score of 0-18, SAT score of 0-460 or Accuplacer score of 0-4 (if test taken prior to May 12, 2009, then score 0-7)
WAC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WAC	107	Introduction to Academic Writing for International Students	For students from non-English-speaking countries. Combines classroom and supplemental instruction with intensive reading, writing, and discussion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: TOEFL score of 0-559, ACT score of 0-18, SAT score of 0-460 or Accuplacer score of 0-4 (if test taken prior to May 12, 2009, then score 0-7)
WPC	101	Student Success in Business	Introduces students to resources that help them to succeed in the W. P. Carey School of Business.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		
WPC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WPC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WPC	301	Business Forum	Provides professional program business students with information on careers, interviewing, job hunting, and résumé skills. Must be taken in the first semester of the professional program for business students.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		Pre-requisites: Must be a W.P. Carey degree program business student
WPC	302	Honors Professional Development	Provides a foundation for developing key professional knowledge and skills required for future business and personal success. Strategic thinking and design, scenario development, verbal and written persuasion, direct marketing techniques, systems thinking, relationship development, research design, and decision-making models.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		
WPC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		Pre-requisites: Must have a minimum GPA of 2.00; Must have a minimum total earned hours of 56
WPC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-12		
WPC	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Prebusiness Office	1-6		
WPC	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Prebusiness Office	1-6	L	Pre-requisites: Must be an Honors student
WPC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		Pre-requisites: Must be W. P. Carey BS or BA degree program student; junior or senior standing.
WPC	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-6		
WPC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Prebusiness Office	1-3		
WPC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-12		
WPC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		

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WSH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	330	Women, Film, and Culture	Explores how narrative films portray women, romantic relationships, and the possibilities for social change in gender relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WSH	370	Sex and the City: Women, Sexuality, and Popular Culture	Examines the changing construction of young, sexually autonomous women in the city by popular media in post-WWII America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: WST 100 or WST 300 with D or better
WSH	385	American Indian Women	Investigate the economic, political and ideological factors contributing to American Indian women's intellectual and creative activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites:WST 100 or WST 300 with a grade of D or currently enrolled
WSH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	413	Lesbian, Gay, and Gender Studies	Explores lesbian, gay, bisexual, transgender, and queer experiences in the U.S. and globally, from sociological, psychological, historical, and literary perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	420	Women of Color in Film	Analyzes the history and representations of women of color in film and film industry through the intersections of gender, race, sexuality, class, and nationalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
WSH	421	Girldom and Adolescence	Examines the changing construction of girlhood and female adolescence through history, memoir, fiction, myth, music, and media.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU	
WSH	464	Voices and Visions	Explores the contributions of visionary women in the humanities; topics vary from semester to semester. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	470	Women and Popular Culture	Interdisciplinary examination of how gender is constructed in popular cultural forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
WSH	470	Women and Popular Culture	Interdisciplinary examination of how gender is constructed in popular cultural forms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
WST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	300	Women in Contemporary Society	Intensive interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	313	Women and Sexuality	Explores feminist theories about women's sexuality and the relationship of these theories and related research to women's experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	360	Women as Healers	Examines the role of women as caregivers, healers, physicians, midwives, and nurses in different cultures and historical periods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G	
WST	372	Women in Judaism	Studies the legal, social, and cultural status of Jewish women in various historical and contemporary societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	373	Latina/Chicana Issues	Examines the roles Mexican American, Chicana, and/or Latina immigrant women play historically, socially, and politically in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	375	Women and Social Change	Combines research and theory on a contemporary social problem with a community action experience focusing on women's social change initiatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
WST	377	History of American Feminist Thought	Explores the development of American feminist theory from its roots to 1975.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	H & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	378	Global Feminist Theory	Global feminist theories and exploration of the intersections of gender, race, ethnicity, class, and nation through critical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & C & G	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	380	Gender, Race, and Class	Explores cultural diversity, class, and gender issues in American social life.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: WST 100 or WST 300 with D or better
WST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	410	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	
WST	440	Politics of Women's Health	Interdisciplinary exploration of how women's social, cultural, and economic position affect their health and health care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: WST 100 or WST 300 with D or better or currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	457	Gender, Culture, and Development	Economic, cultural, and sociopolitical contexts for understanding women's roles related to health, family, work, education, and politics in developing countries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	Pre-requisites: May not sign up for WST 457 if received credit for SGS 454
WST	460	Women and the Body	Interdisciplinary look at how representations of woman as body permeate culture and affect a woman's sense of self.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	477	Women and Violence	Global examination of forms of violence against women at the individual, institutional, and cultural levels, and efforts to control it.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
WST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
WST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-7	L	Pre-requisites: WST 100 or 300 with a C or better or currently enrolled
WST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Liberal Arts and Sciences	School of Social Transformation	1-3		
WST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	601	Critical Concepts of Gender	Key concepts, theoretical frameworks, disciplinary and interdisciplinary approaches, and the critical debates that have shaped the field of gender studies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	602	Mapping the Intersections of Gender	Theoretical concepts, metaphors, and frameworks employed by feminist scholars to understand the way gender articulates with other categories of difference.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	603	Engendering Methodology	Focuses on the methodologies, epistemologies, and ethical dilemmas of researching gender.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	640	Visual and Narrative Culture	Feminist and semiotic theory to examine gender representations in visual and narrative culture including film, dramatic literature, fiction, and autobiography.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	701	Research Design and Proposal Development in Gender Studies	Prepares students for careers in gender studies by developing skills in research design, proposal writing, and identifying funding outlets.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
WST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
WST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	276	Feminist Foundations: Going to the Sources	Historical survey of sources influential in the development of the feminist movement in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
WST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	300-W	Women in Contemporary Society	Interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	320	Women in Popular Culture	Analyzes from a historical perspective the images of women in magazines, films, advertising, toys, and other popular culture forms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	333	Critical Perspectives on Sexuality	Examines critical theories of sexuality, including history, commerce, pleasure, LGBT issues, identity, medicalization of sexuality, disorders, sex crime, and pornography.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	350	Race, Class, and Gender	Explores the intersections of race, class, and gender in the U.S. and world, as forces of social control, oppression, and liberation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	370	Chronicling Women's Lives	Explores the lives of a selected group of American women as a point of departure for the chronicling of contemporary women's lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	376	Feminist Theory	Explores feminist theories and the intersection of gender, race, ethnicity, and class through critical analyses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H & C	Pre-requisites: WST 100 or WST 300 with D or better
WST	385	Psychology of Gender	Examines, from a psychological perspective, the similarities and differences in beliefs, attitudes, and behaviors of women and men.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
WST	390	Women and World Religions	Comparative examination of vital issues about women and religions in different places of the world and different historical periods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	430	Gender on the Borderlands	Examines women's status in the U.S.-Mexico borderlands through key issues such as migration, labor, violence, education, and culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	431	Women and Film	Comparative international course explores ways feminist directors have broken the Hollywood mold in films focusing on women.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	C	
WST	444	Women and Health	Explores women's health from a feminist perspective, including critical analyses of women's bodies in medical, feminist, and popular literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
WST	457-W	Women, Cultures, and Societies	Examines issues such as poverty, dependency, interdependency, race, class, and gender in different societies of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	467	Ethnic Women Writers	Concentrates on selected women writers of the U.S. who are Native American, African American, Latina, and Asian-American.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	473	Latina/Chicana Representation	Examines from an interdisciplinary perspective contemporary issues experienced by Chicana/Latina women in the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	475	Women of the Diaspora across Cultures	Examines the socioeconomic condition, political formation, and identities of contemporary indigenous, ethnic minority, immigrant, and migrant women globally.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
WST	480	Gender Issues in Education	Examines the relationship between gender and educational access and outcomes as a result of public policy in a variety of communities and settings.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	483	Women Writers Across Cultures	Comparative approach to contemporary writings by women from around the world.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
WST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		

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WST	485	Women, Gender, and Leadership	Explores the gendered nature of leadership and studies strategies that enable women to lead successfully in areas such as business, education, and public service.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
WST	487	Gender and International Development	Addresses conceptual, methodological, and theoretical issues concerning gender, development, and internationalism; evaluates theories and models for change.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	
WST	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
WST	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
WST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7	L	Pre-requisites: WST 100 or 300 with a C or better or currently enrolled; ENG 101 or 105 with a C or better or currently enrolled
WST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
WST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	100	Women and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	300	Women in Contemporary Society	Intensive interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	375	Women and Social Change	Combines research and theory on a contemporary social problem with a community action experience focusing on women's social change initiatives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
XBA	101	Campus Match: Business	This prefix is used only to schedule clusters of classes for various university programs.	N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	0.		
XEE	101	Campus Match:Extended Ed	This prefix is used only to schedule clusters of classes for various university programs.	N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
YDL	201	Introduction to Youth Studies	Introduces a perspective on the everyday lives of youth in regard to experience, sex, age, relational context, and identity.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	210	Urban Youth and Youth Studies	Explores the lives of young people from 12 to 22 years old in urban neighborhoods, communities, and cities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	301	Adolescent and Youth Development Leadership	Applies theory and research about youth, including how findings can be used and how theories facilitate behavior understanding.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	450	Youth Policy	Examines various federal and state policies designed for youth, how and why policies for youth are constructed.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Spring 2010

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AAD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AAD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AAD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AAD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AAD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
AAD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AAD	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design MS student
AAD	551	Architectural Management I	Design delivery, coordination of construction documents, cost estimating, bidding and negotiations, construction observation, and postconstruction services.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Bldg Des(Facilities Dev/Mgt) Graduate Architecture student
AAD	552	Architectural Management II	Organizational, human performance, and market influences on architecture firms and projects. Readings, case studies, and analysis of managerial problems and solutions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Building Design MS, Master of Architecture, Master of Urban Design or Master of Landscape Architecture student
AAD	555	Architect as Developer	Development building, real estate, construction funding, land acquisition, and the sources for capital.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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AAD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AAD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ABS	130	Introduction to Environmental Science	Introduces soil resources, their physical and chemical properties, classification, energy dynamics, and the role they play in environmental quality.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
ABS	207	Applied Plant Taxonomy	Introduces identification of vascular plants emphasizing seed plants. Surveys seed plant families. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	225	Soils	Fundamental properties of soils and their relations to plant growth, nutrition of man and animals, and environmental quality. Both ABS 225 and ABS 226 must be taken to secure General Studies SQ credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
ABS	226	Soils Laboratory	Selected exercises to broaden the background and understanding of basic soil principles. Both ABS 225 and ABS 226 must be taken to secure General Studies SQ credit.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	
ABS	260	Fundamentals of Urban Horticulture	Principles and practices of horticulture, emphasizing development, growth, and propagation of horticultural plants and environmental factors that affect these processes. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
ABS	270	Sustainable Biological Systems	Ecological foundations of sustainable biological systems, anthropogenic impacts on ecosystem structure and function, and ecological risk assessment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	274	Introduction to Wildlife Management	Managing wildlife in the Southwest, including life histories of small game, fur bearers, big game, and selected nongame specials. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	301	Technology and Biology	Demonstrations of a broad range of innovative technologies in molecular biology, cellular and organismal biology, horticulture, and wildlife and restoration ecology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	302	Ethical and Policy Issues in Biology	Policy environment and ethics in the practice of biology. Covers ethical reasoning, policy formulation, and regulatory agencies with examples from biotechnology and the environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	311	Applied Cellular Biology	Overview of the biology of the cell; emphasizes structure and function of biomolecules within the cell.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	312	Structure and Function	Surveys structural and functional attributes of plant and animals of particular importance in the applied biological sciences. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	350	Applied Statistics	Statistical methods with applications in the biological sciences and natural resource management. Uses computers and the Internet.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	
ABS	355	Vertebrate Zoology	Classification, anatomy, and physiology of the vertebrates.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	360	Southwest Home Gardening	Multimedia course for nonmajors surveying contemporary topics in Southwest home horticulture, including landscaping, flower and vegetable gardening, citriculture, interiorscaping, and others.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	362	Landscape Plants and Design	Identification, design, and use of plants in urban landscapes. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	363	Landscape and Turf Irrigation	Design, management, and maintenance of landscape and turf irrigation systems. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	364	Urban Forestry	Care, maintenance, and valuation of the urban forest, including public and private landscape codes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	367	Urban Parks	Overview of the management and maintenance of private and public parks, urban greenspaces, and recreational areas. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	368	Plant Propagation	Theory and application of sexual and asexual propagation techniques. Considers plant materials used both for urban horticulture and ecological restoration applications. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	370	Ecology	Interactions between organisms and their environments; structure and dynamics of populations, communities, ecosystems, and landscapes, with emphasis on vegetation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	372	Ecology: Ecosystems and Landscapes	Structure and function of ecosystems, interactions of pattern and process in landscapes	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	375	Conservation Biology	Principles of conservation biology, management of threatened species and ecosystems, biodiversity patterns; emphasizes issues in the Southwest. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ABS	376	Wildlife Ecology	Examines ecological principles underlying wildlife population dynamics with emphasis on physiology, genetics, nutrition, and habitat factors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	378	Wildlife Nutrition	Principles of nutrient metabolism in wildlife species; emphasizes understanding the interaction of wildlife with their environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	380	Restoration and Wildlife Plants	Important wildland plants, including invasive and endangered species, wildlife food species, and species used for ecosystem restoration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	381	Natural Resources Policy	Policies and regulations affecting management of natural resources, with emphases on wildlife and ecological restoration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	401	Intermediate Statistics	Analysis of variance, multiple comparisons, multiple regression.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	402	Vegetation and Wildlife Measurement	Vegetation inventory, sampling, monitoring, and evaluation. Methods of estimating wildlife populations, activity, and home ranges.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	425	Soil Classification and Management	Principles of soil genesis, morphology, and classification. Presents management and conservation practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	430	Watershed Management	Hydrologic, physical, biological, and ecological principles applied to watershed management. Impact of ecosystem manipulations on water yield and quality.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	433	Riparian and Wetland Ecology	Functions and components of riparian and wetland ecosystems and the management of these systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	434	Soil Ecology	Soils viewed in an ecosystem context, soil-plant relationships, nutrient budgets, and abiotic factors that influence soil processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	435	Applied Systems Ecology	Simulation modeling as a tool to study ecological processes and human impact on ecosystems and organisms.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	440	Ecological Restoration Techniques	Techniques for ecological restoration, riparian and wetland restoration, and monitoring restoration success.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	441	Ecological Restoration Practicum	Field experience in the evaluation and monitoring of implemented ecological restoration projects. fee	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ABS	460	Organic Gardening	Applies principles and practices of organic gardening in the low desert, including environmental impacts of modern food production. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	462	Greenhouse/Nursery Management	Greenhouse structures, environment, and nursery operations. Includes irrigation, nutrition, and other principles relative to production of nursery crops. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	463	Golf and Sports Turf Management	Selection, establishment, and maintenance of turf grasses bred specifically for golf and sports facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	465	Senior Enterprise Project	Selection and completion of an urban horticulture project with faculty advisor approval related to the field of study.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	470	Mammalogy	Classification and biology of mammals, emphasizes North America.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	471	Ornithology	Classification and biology of birds, emphasizing North America. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	475	Habitat Management for Small Wildlife	Habitat management considerations and practices for small game and nongame wildlife species in North America. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	476	Big Game Habitat Management	Habitat management considerations and practices for big game wildlife species in North America. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	480	Ecosystem Management and Planning	Principles of ecosystem management, with emphasis on economic and policy constraints on the planning process. Risk assessment and management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	L	
ABS	481	Riparian and Wetland Restoration	Principles and problems in the restoration of degraded riparian and wetland ecosystems. Construction of wetlands.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	482	Ecology and Planning for Restoration	Ecological principles and resource planning processes applied to the restoration of degraded landscapes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	483	Restoration Planning Practicum	Field experience in ecological restoration techniques, selection of mitigation techniques, and implementation planning. Fee.	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	2.		
ABS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	485	GIS in Natural Resources	Principles of Geographic Information Systems (GIS) utilized in natural resource management. Use of computers for spatial analysis of natural resources.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	486	Introduction to Remote Sensing	Remote sensing technologies in natural resource management using computerized data from aerial photography and satellite imagery. Not for graduate credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ABS	489	Undergraduate Research	Undergraduate research under the supervision of an applied biological sciences faculty member.	N	RSC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ABS	490	Applied Biological Sciences Seminar	Current literature and significant developments related to applications of the biological sciences. May be repeated for credit.	N	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ABS	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-6		
ABS	493	Honors Thesis		N	THE	N	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-6	L	Pre-requisites: Must be an Honors student
ABS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	498	Pro-Seminar	Small-group study and research for advanced students within their majors.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-7		
ABS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		
ABS	540	Plant Responses to Environmental Stresses	Reaction of plants to environmental stresses: aerial pollutants, fire, herbivores, floods, mechanical treatments, pesticides, and soil amendments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	550	Vegetation Dynamics	Dynamics of vegetation linking physiological, population, and community ecology. Collection and analysis of vegetation data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	551	Advanced Environmental Analysis	Advanced statistical procedures and experimental design for the biological sciences. Techniques for analyzing data that do not meet statistical assumptions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	553	Riparian Ecology	Review of recent literature, developments, and methods related to riparian ecology. Applies soil and landscape ecology to riparian systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	560	Dynamic Spatial Modeling	Simulation modeling of landscapes, animal populations, and ecological processes in space and time. May use modeling tools on computer clusters.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
ABS	570	Advanced Animal Nutrition	Metabolic and physiological interactions of nutrients in wild and domesticated animals consuming natural feeds.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	586	Remote Sensing in Environmental Resources	Principles and application of remote sensing technologies in natural resource management using computerized data from aerial photography and satellite imagery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		
ABS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ABS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ABS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ACC	231	Uses of Accounting Information I	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Not open to Pre-BIS or Interdisciplinary Studies students; CIS 105, 220 or 236 with C or better
ACC	241	Uses of Accounting Information II	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: ACC 231, ACC 261 or ACC 303 with C or better

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ACC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-3		
ACC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	231	Uses of Accounting Information I	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Not open to Pre-BIS or Interdisciplinary Studies students; CIS 105, 220 or 236 with C or better
ACC	241	Uses of Accounting Information II	Introduces the uses of accounting information focusing on the evolution of the business cycle and how accounting information is used for internal and external purposes.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: ACC 231, ACC 261 or ACC 303 with C or better
ACC	261	Honors Fundamentals of Financial Accounting	Covers basic financial accounting concepts and applications. Develops an understanding of the environment in which financial reporting choices are made.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Must be an Honors student; Must have completed CIS 105 or CIS 220 or CIS 236 with a grade of C or better
ACC	271	Honors Fundamentals of Managerial Accounting	Covers basic managerial accounting concepts and applications.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Must be an Honors student; Must have completed ACC 231, ACC 261 or ACC 303 with a grade of C or greater
ACC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	315	Financial Accounting and Reporting	Accounting theory and practice related to uses of financial statements by external decision makers.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey BS or BA student (not open to Accountancy students); or non-bus student with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and 56 earned hrs; ACC 231 and ACC 241 with C or better
ACC	316	Mgmt Uses of Accounting	Uses of accounting information for managerial decision making, budgeting, and control.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey BS or BA student (not open to Accountancy students); or non-bus student with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and 56 earned hrs; ACC 241 with C or better
ACC	326	External Financial Reporting I	Theory, U.S. standards, and practice applicable to financial statements, revenue recognition, and assets.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student OR be pursuing an Accountancy or Prof Accountancy certificate
ACC	327	External Financial Reporting II	Theory, U.S. standards, and practice applicable to equities, cash flow statement, earnings per share, leases, pensions, and other essential topics.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: School of Global Management and Leadership Accountancy student; ACC 326 with C or better
ACC	336	Cost Management and Control	Concepts and principles for product costing, planning and control, and internal decision making.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate
ACC	340	External Reporting I	Financial accounting theory and practice related to external reporting.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy or Finance BS student; ACC 241 or ACC 271, and ECN 221 with a grade of C or better. Pre- or co-requisite: FIN 300 or FIN 302 or FIN 303.
ACC	346	Information Systems Management	Information requirements and transaction processing for integrated accounting systems emphasizing database systems analysis and design, controls, and computer processing.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS or a Global Management student with Professional status
ACC	350	Internal Reporting	Internal reporting systems for planning, control, and decision making.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Finance BS student; ACC 241 or ACC 271, and ECN 221 with a grade of C or better.
ACC	356	Income Tax Accounting	Public policy concepts and rules of federal income tax for all taxpayers. Individual tax returns and use of tax software.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate AND ACC 326 with C or better
ACC	361	Accounting Technology	Use and understanding of a computerized accounting package and other software for accounting applications.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student with Professional status OR be pursuing an Accountancy or Prof Accountancy certificate AND ACC 326 and 336 and 346 with C or better
ACC	382	Accounting and Financial Analysis	Introduces nonbusiness majors to financial accounting concepts related to operating, financing, investing, and ethical decisions.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Non-Accountancy student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
ACC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	School of Accountancy	1-4		
ACC	410	Contemporary Financial Reporting	Topics include financial statements, roles and effects of accounting information in society, policy setting, managers' choice of accounting techniques. Cannot be used for major credit in Accountancy.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Business/Financial Mgt BS student AND have completed with a C or better FIN 300 or 301 or be currently enrolled or not be pursuing an Accountancy or Professional Accountancy certificate
ACC	426	Advanced Reporting: Consolidation, International, and Not-for-Profit Topics	Consolidated financial statements, not-for-profit accounting, and international accounting standards and topics including foreign currency transactions and translation.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326.
ACC	430	Taxes and Business Decisions	Federal income taxation of sole proprietors, partnerships, corporations, fiduciaries, and individuals with an emphasis on tax consequences of business and investment decisions.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 340 and LES 305 with C or better
ACC	436	Advanced Topics in Cost Management	Issues in contemporary manufacturing environments. Topics include cost estimation, activity-based management, just-in-time inventories, budgeting, and variances.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326, 331 or 336 or be currently enrolled
ACC	440	External Reporting II	Continuation of ACC 340 with emphasis on the recognition, research, and resolution of financial reporting issues.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Finance BS student; ACC 340 with C or better
ACC	444	Enterprise Process Analysis and Design	Analysis and design of efficient and effective business processes. Emphasizes taking advantage of new information technologies to improve managerial decision making. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS or Computer Info Systems BS student; ACC 241 or ACC 271, and ECN 221 with a grade of C or better.

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ACC	450	Principles of Auditing	Standards and procedures in auditing. Planning, evidence gathering and accumulation, and reporting. Ethical and legal considerations. fee	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: W. P. Carey Accountancy BS student; ACC 440 and 444 with C or better
ACC	476	External Auditing	Theory and standards underlying the attestation process. Topics include evidence gathering, analysis, reporting, and development of professional judgement skills.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: Global Management Accountancy BS student OR Accountancy or Professional Accountancy Certificate; ACC 322 or 327 with C or better; ACC 346 or 347 with C or better
ACC	477	Internal Auditing	Contemporary issues and practices of internal auditing. Standards and process of management/operation audits.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 326 or ACC 346 or 347.
ACC	478	Governmental and Not-for-Profit Accounting	Accounting and reporting systems for governmental entities, healthcare organizations, colleges and universities, and other nonprofit organizations.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-Requisites: Must be a Global Management Accountancy BS student or pursuing an Accountancy or Professional Accountancy Certificate AND have earned a C or better in ACC 321 or 326 or be currently enrolled
ACC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	School of Accountancy	1-6		
ACC	493	Honors Thesis		N	THE	N	Z1	W.P. Carey School of Business	School of Accountancy	1-6	L	Pre-requisites: Must be an Honors student
ACC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Accountancy BS student
ACC	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-6		
ACC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-7		Pre-requisite: Accountancy BS, Finance BS or Economics BS student
ACC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-3		Pre-requisite: Accountancy BS student
ACC	502	Financial Accounting	Contemporary financial accounting and reporting systems; emphasizes the interpretation and evaluation of a company's external financial reports.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	2-4		Pre-requisite: MBA student
ACC	503	Managerial Accounting	Managerial accounting concepts and procedures for internal reporting applied to the decision making activities of the professional managers.	N	LEC	N	GNA	W.P. Carey School of Business	School of Accountancy	2-4		Pre-requisite: MBA student
ACC	511	Taxes and Business Strategy	Economic implications of selected management decisions involving application of federal income tax laws. Recognition of tax hazards and tax savings.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	512	Advanced Auditing	Builds on the skills obtained in the beginning auditing (assurance) course and focuses on audit planning, risk assessment, evidence, and reporting procedures and fraud.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Master of Accounting student
ACC	513	Advanced Financial Accounting	Focuses on advanced financial accounting topics along with their application in the financial reporting process.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Specific Business Graduate majors
ACC	525	Accounting Theory	Examines GAAP and the broader implications of financial accounting in a market economy while balancing the varied interests of diverse stakeholders.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisites: must be in the Accountancy & Appl Leadership graduate plan.
ACC	529	Fraud Accounting	Surveys a variety of topics, including types of fraud, the prevention and detection of fraud, and fraud investigations.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	536	Advanced Topics in Cost Management	Emphasizes cost management topics for manufacturing, merchandising, and service industries while adopting the perspective of the user of cost management information.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	561	Auditing Through the Computer	Presents general IT audit concepts, terms, standards, practices, and current tools and techniques.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	567	Financial Models in Accounting Systems	Development and application of financial models by accountants. Analysis of decision support systems as financial modeling environments.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisites: Specific Business Graduate students only
ACC	571	Taxation of Corporations and Shareholders	Tax aspects of the formation, operation, reorganization, and liquidation of corporations and the impact on shareholders.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	573	Taxation of Pass-Through Entities	Tax aspects of the definition, formation, operation, liquidation, and termination of a partnership. Emphasizes tax planning.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	575	Family Tax Planning and Wealth Transfer Taxation	Tax treatment of wealth transfers at death and during lifetime, with emphasis on tax planning.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	577	Internal Auditing	Examines the vocabulary, concepts, logic, principles, processes, and techniques of auditing.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: must be in the Accountancy & Appl Leadership graduate plan.
ACC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	582	Information Security of Interorganizational Systems	Function and responsibility of the information security officer. Advanced topics in security methods and technology.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ACC	585	Performance Measurement and Advanced Managerial Accounting	Applies quantitative techniques to accounting problems.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Business Graduate student
ACC	586	Shareholder Value Creation and Financial Statement Analysis	Develops skills necessary to exploit financial reporting information in a business environment and appreciation of reporting issues faced by management.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	588	Professional Accounting Research	Applies the technical knowledge of accounting theory and principles developed in other academic courses through the use of "real life" case studies, where such knowledge and professional judgment is applied in resolving advanced accounting problems and issues.	N	RSC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: W. P. Carey Master of Accountancy student
ACC	589	Multijurisdictional Tax II	Addresses the U.S. taxation of U.S. individuals and businesses that do business outside the U.S. as well as the U.S. taxation of foreign persons and tax treaties, allocation of income, foreign tax credits, and transfer pricing. Emphasizes planning related to some of the tax issues that commonly arise in cross-border businesses.	N	RSC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: W. P. Carey Master of Taxation student
ACC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Specific Business Graduate majors
ACC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Specific Business Graduate majors
ACC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	596	Accounting and Leadership Capstone Project	Case-based course dealing with the pragmatics of managing risk in a variety of business settings, including public accounting, consulting, and industry.	N	LEC	N	OPT	W.P. Carey School of Business	School of Accountancy	3.		Pre-requisite: Graduate student in Accountancy & Applied Leadership
ACC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-4		Pre-requisite: Specific Business Graduate majors
ACC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		

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ACC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Accountancy	1-12		Pre-requisite: Business Administration (Accountancy) PHD student
ACC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-15		
ACC	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Accountancy	1-12		
ACC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	School of Accountancy	1.		
ACC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	School of Accountancy	1-15		
ACO	100	Overview of Applied Computing	Internet and HTML, XML, databases, networks and distributed processing, digital media and graphic design. Opportunities, professionalism, and ethics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
ACO	101	Introduction to Computer Science	Concepts of problem solving, structured and object-oriented programming in Java, fundamental algorithms, computer system concepts. Social and ethical responsibilities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: MAT117 or higher with C or better
ACO	102	Principles of Computer Science	Issues and concepts throughout computer science, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Java programming. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: ACO 101 with C or better
ACO	201	Data Structures and Algorithms	Static and dynamic data structures, recursive and iterative sorting and searching, object-oriented design and programming, software design models and implementation/testing strategies, professional responsibilities. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: ACO 102 and MAT 210 with C or better
ACO	210	Introduction to Systems Programming	Introduces operating systems as resource managers, processes, threads, memory allocation, file systems, protection, system calls, application program interfaces. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisite: ACO 201 with C or better
ACO	220	Introduction to Database Systems	Introduces database management systems concepts. Entity-relationship and relational data models. Database design. Relational algebra, calculus, and SQL query languages. Query optimization. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: ACO 201 and MAT 243 with C or better
ACO	320	Database Systems and Transaction Processing	Relational database normalization theory, stored procedures, triggers, and call-level interface. Data-centric XML. Transaction processing in centralized and distributed databases. Security. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 220 with C or better
ACO	330	Computer Networks	Network architecture and protocols, flow and congestion control, switching and routing, link-layer technologies, medium access control, physical layer basics, quality-of-service, security. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 102 with C or better
ACO	331	Network Design	Fundamental network design principles, internetworking design, network architectures, network management, traffic analysis, security management, case study and hands-on experiments. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 330 with C or better
ACO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	420	Object Databases	Object-oriented conceptual modeling, object-oriented databases, object-relational databases, applications. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	421	Data Mining and Warehousing	Introduces data mining from a database perspective, including classification, clustering, and association rules. Data warehousing methodologies. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	422	XML and Databases	XML data model, schema specification and validation, querying, storage, indexing, and current research topics. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: ACO 320 with C or better
ACO	430	Wireless Networks	Wireless transmission fundamentals, multiple access techniques, error detection and control, cellular concepts and systems, wireless LAN, performance analysis, recent advances. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210, ACO 330 and STP 300 with C or better
ACO	431	Network Security	Digital threats and attacks, cryptography, confidentiality, authentication protocols, message integrity, security in network applications, intrusion detection, malicious software countermeasures, firewalls. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210, ACO 330 and MAT 243 with C or better
ACO	432	Distributed Systems	Distributed system models, distributed programming technique, clock synchronization, distributed snapshot, distributed mutual exclusion, concurrency control, fault tolerance, security, recent advances. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: ACO 210 and ACO 330 with C or better
ACO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		

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ACO	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6	L	Pre-requisites: Must be an Honors student
ACO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
ACO	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-7		
ACO	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
ADE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ADE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	321	Architectural Studio I	Introductory building design problems. Emphasizes design process, communication methods, aesthetics, construction, and technology. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Architecture student; ALA 240 with C or better
ADE	322	Architectural Studio II	Site and building design problems. Emphasizes programmatic and environmental determinants and building in natural and urban contexts. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must have completed ADE 321 with a grade of C or better or be currently enrolled; must be an Architectural Studies student
ADE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	421	Architectural Studio III	Topical design problems of intermediate complexity, including interdisciplinary problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: ADE 322 with C or better; Co-requisites: APH 421, ATE 451, ARP 484
ADE	422	Architectural Studio IV	Topical design problems of advanced complexity, including interdisciplinary problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must be an Architectural Studies student; Must have completed ADE 421 with a grade of C or greater or be currently enrolled; Must have completed ARP 484 with a grade of Y or be currently enrolled
ADE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ADE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ADE	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
ADE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ADE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ADE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ADE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Master of Architecture, Master of Landscape Architecture, or Master of Urban Design

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ADE	510	Foundation Architectural Studio	Fundamentals of architectural design, methodology, visualization, and representation. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Master of Architecture student; Co-requisite: ATE 553 and ATE 563
ADE	511	Core Architectural Studio I	Applies design fundamentals in architectural problems, including construction, technology, programmatic and environmental determinants. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Must be Master of Architecture student; must have completed ADE 510 with a grade of C or greater or be currently enrolled
ADE	512	Core Architectural Studio II	Applies architectural design fundamentals to increasingly complex problems, including specific sites and activities. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	6.		Pre-requisites: Must be Master of Architecture student; must have completed ADE 511 with a grade of C or greater or be currently enrolled
ADE	521	Advanced Architectural Studio I	Design problems emphasizing theory, aesthetics, and tectonics as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; Co-requisite: ATE 553 and ATE 563
ADE	522	Advanced Architectural Studio II	Design problems emphasizing the comprehensive integration of building systems and technologies as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; ADE 521 with a C or better; Co-requisites: APH 505 and ATE 556
ADE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ADE	621	Advanced Architectural Studio III	Design problems emphasizing the urban context, planning issues, and urban design theory as influences on architectural form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; ADE 522 with a C or better; Co-requisite: APH 515 OR Bldg Des(Energy Perform/Bldgs) MS student
ADE	622	Advanced Architectural Studio IV	Individual, student-initiated project reflecting a culminating synthesis of architectural ideas. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Master of Architecture student; ADE 522 with a C or better; Co-requisites: APH 515 OR Bldg Des(Energy Perform/Bldgs) MS student
ADE	661	Bioclimatic Design Studio	Sustainable architectural and site synthesis at a variety of scales emphasizing bioclimatic criteria and the use of passive and low-energy systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Must either be Master of Architecture or Bldg Des(Energy Perform/Bldgs) MS student
ADE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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ADE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AEC	10-D	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	10-M	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	10-M	Tutorial--Mon/Wed		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-D	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-M	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	11-M	Tutorial--Tues/Thurs		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	21-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23-D	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	23-M	Special Elective		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	30	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31-D	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	31-M	International T.A.		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	41-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	41-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	42	Basic 1 Grammar		N	LEC	N	GNA	EE - CONV	Arizona State University	0.		
AEC	42	Basic 1 Grammar		N	LEC	N	GNA	EE - CONV	Arizona State University	0.		
AEC	50-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	50-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	51-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	51-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	60-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	60-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	61-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	61-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate Toefl		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	63	Intermediate Toefl		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business Across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	64	Business Across Cultures		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	70-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	70-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	71-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	71-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	72-D	Intermediate 2 Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	72-M	Intermediate 2 Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	75	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	75-D	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	75-M	Pronunciation		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76-D	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	76-M	Conversational English		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	78	Internet		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	80-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	80-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	81-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	81-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82-D	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	82-M	Advanced Grammar		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	83	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	83-D	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	83-M	Advanced TOEFL		N	LEC	N	OPT	EE - CONV	Arizona State University	6.		
AEC	84	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	84-D	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	84-M	Business Case Studies		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	90-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	90-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	91-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	91-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98-D	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	98-M	Listening/Speaking		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99-D	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	99-M	Reading/Writing		N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
AEC	20	Listening/Speaking		N	LEC	N	GNA	University College	NC American English and Culture Program	3-9		
AEC	20-D	Listening/Speaking		N	LEC	N	AUD	University College	NC American English and Culture Program	0.		
AEC	20-M	Listening/Speaking		N	LEC	N	AUD	University College	NC American English and Culture Program	0.		
AEC	22	Special Programs Training		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	22	Special Programs Training		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	24	Special Programs Field-Based Learning		N	LEC	N	OPT	University College	NC American English and Culture Program	3.		
AEC	24	Special Programs Field-Based Learning		N	LEC	N	OPT	University College	NC American English and Culture Program	3.		
AEC	25	Special Programs English for Specific Purposes		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	25	Special Programs English for Specific Purposes		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	26	Special Programs Project Work		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	26	Special Programs Project Work		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	27	Special Programs Current Issues and Topics		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	27	Special Programs Current Issues and Topics		Y	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	28	Special Programs Survival English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	28	Special Programs Survival English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	32	Evening English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	32	Evening English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	33	Evening English ST: Language Test Preparation		Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	33	Evening English ST: Language Test Preparation		Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	34	Evening English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	34	Evening English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	35	Weekend English ST: Business English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	35	Weekend English ST: Business English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	36	Weekend English ST: Academic English		N	LEC	Y	GNA	University College	NC American English and Culture Program	3-9		
AEC	36	Weekend English ST: Academic English		N	LEC	Y	GNA	University College	NC American English and Culture Program	3-9		
AEC	37	Weekend English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	37	Weekend English ST: Professional English		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	38	Weekend English ST: Language Test Preparation		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	38	Weekend English ST: Language Test Preparation		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	39	Weekend English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	39	Weekend English ST: English Skills		N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	40	Basic 1 Listening/Speaking	On completing the Basic 1 Listening/Speaking course, a student will be able to (1) follow directions and comprehend main ideas and supporting details of short, simple passages and conversations spoken slowly; and (2) speak informally to express basic needs, habits and descriptions in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	41	Basic 1 Reading/Writing	On completing the Basic 1 Reading/Writing course, a student will be able to (1) recognize main ideas and find supporting details in selected reading passages of a few pages; and (2) produce a guided writing with a personal point of view, demonstrating level-appropriate control of grammar, word forms, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	41	Basic 1 Reading/Writing	On completing the Basic 1 Reading/Writing course, a student will be able to (1) recognize main ideas and find supporting details in selected reading passages of a few pages; and (2) produce a guided writing with a personal point of view, demonstrating level-appropriate control of grammar, word forms, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	42	Basic 1 Grammar	This course covers helping verbs, pronouns, adjectives, count/non-count nouns, and tenses (present, present progressive and simple past).	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	42	Basic 1 Grammar	This course covers helping verbs, pronouns, adjectives, count/non-count nouns, and tenses (present, present progressive and simple past).	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	50	Basic 2 Listening/Speaking	On completing the Basic 2 Listening/Speaking course, a student will be able to follow instructions, directions, and comprehend the main ideas and supporting details of 1-3 minute announcements and conversations with controlled speech and delivery; and (2) speak informally in basic social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	50	Basic 2 Listening/Speaking	On completing the Basic 2 Listening/Speaking course, a student will be able to follow instructions, directions, and comprehend the main ideas and supporting details of 1-3 minute announcements and conversations with controlled speech and delivery; and (2) speak informally in basic social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	51	Basic 2 Reading/Writing	On completing the Basic 2 Reading/Writing course, a student will be able to (1) recognize main ideas, find supporting details, and recognize the organizational pattern in short and page-length reading passages; and (2) produce a composition, based on a model, with a personal point of view, demonstrating level-appropriate control of grammar, word form, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	51	Basic 2 Reading/Writing	On completing the Basic 2 Reading/Writing course, a student will be able to (1) recognize main ideas, find supporting details, and recognize the organizational pattern in short and page-length reading passages; and (2) produce a composition, based on a model, with a personal point of view, demonstrating level-appropriate control of grammar, word form, and punctuation.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	52	Basic 2 Grammar	Learn grammar for everyday writing and speaking ¿ present, progressive and future tenses, irregular verbs in the past tense, modal verbs, pronouns, order of adjectives, and comparisons.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	52	Basic 2 Grammar	Learn grammar for everyday writing and speaking ¿ present, progressive and future tenses, irregular verbs in the past tense, modal verbs, pronouns, order of adjectives, and comparisons.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	53	Basic Communication Special Topic	Learn to communicate effectively at the basic level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	53	Basic Communication Special Topic	Learn to communicate effectively at the basic level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	60	Intermediate 1 Listening/Speaking	On completing the Intermediate 1 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 1-5 minute listening passages, conversations, instructions, and directions with controlled speech and delivery; and (2) speak informally in common social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	60	Intermediate 1 Listening/Speaking	On completing the Intermediate 1 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 1-5 minute listening passages, conversations, instructions, and directions with controlled speech and delivery; and (2) speak informally in common social situations in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	61	Intermediate 1 Reading/Writing	On completing the Intermediate 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and find supporting details in selected reading passages of a few pages; and (2) produce an organized composition, with a personal or an objective point of view, demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	61	Intermediate 1 Reading/Writing	On completing the Intermediate 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and find supporting details in selected reading passages of a few pages; and (2) produce an organized composition, with a personal or an objective point of view, demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	62	Intermediate 1 Grammar	Improve grammar for everyday writing and conversation ¿ present perfect and present perfect continuous and future tenses, noun clauses, and grammar to cover frequency, duration, possibility, and necessity.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	62	Intermediate 1 Grammar	Improve grammar for everyday writing and conversation ; present perfect and present perfect continuous and future tenses, noun clauses, and grammar to cover frequency, duration, possibility, and necessity.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	70	Intermediate 2 Listening/Speaking	On completing the Intermediate 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 5-10 minute general topic listening passages with modified speech and delivery; and (2) speak formally and informally on a variety of general topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	70	Intermediate 2 Listening/Speaking	On completing the Intermediate 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of 5-10 minute general topic listening passages with modified speech and delivery; and (2) speak formally and informally on a variety of general topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	71	Intermediate 2 Reading/Writing	On completing the Intermediate 2 Reading/Writing course, a student will be able to recognize the main ideas and supporting details and distinguish between fact and opinion in a reading passage of several pages; and (2) produce a composition, based on a writing task, with an objective point of view demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	71	Intermediate 2 Reading/Writing	On completing the Intermediate 2 Reading/Writing course, a student will be able to recognize the main ideas and supporting details and distinguish between fact and opinion in a reading passage of several pages; and (2) produce a composition, based on a writing task, with an objective point of view demonstrating level-appropriate control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	72	Intermediate 2 Grammar	Focus on an overview of all the tenses. This course also covers passive voice and sequence of tenses with adverbial clauses.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	72	Intermediate 2 Grammar	Focus on an overview of all the tenses. This course also covers passive voice and sequence of tenses with adverbial clauses.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	73	Intermediate Communication Special Topic	Learn to communicate effectively at the intermediate level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	73	Intermediate Communication Special Topic	Learn to communicate effectively at the intermediate level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	77	Intermediate TOEFL	Introduces test-taking strategies for the iBT TOEFL. Only Intermediate-level students may attend this class.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	77	Intermediate TOEFL	Introduces test-taking strategies for the iBT TOEFL. Only Intermediate-level students may attend this class.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	80	Advanced 1 Listening/Speaking	On completing the Advanced 1 Listening/Speaking course, a student will be able comprehend the main ideas and supporting details of brief academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	80	Advanced 1 Listening/Speaking	On completing the Advanced 1 Listening/Speaking course, a student will be able comprehend the main ideas and supporting details of brief academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	81	Advanced 1 Reading/Writing	On completing the Advanced 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details and determine logical inferences in selected general reading passages of several pages; and (2) produce a composition, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	81	Advanced 1 Reading/Writing	On completing the Advanced 1 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details and determine logical inferences in selected general reading passages of several pages; and (2) produce a composition, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	90	Advanced 2 Listening/Speaking	On completing the Advanced 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of complex but abbreviated academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	90	Advanced 2 Listening/Speaking	On completing the Advanced 2 Listening/Speaking course, a student will be able to (1) comprehend the main ideas and supporting details of complex but abbreviated academic lectures and instructions spoken naturally; and (2) speak formally and informally on academic topics in a comprehensible manner demonstrating level-appropriate fluency and control of pronunciation, grammar, and vocabulary.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	91	Advanced 2 Reading/Writing	On completing the Advanced 2 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details, and determine logical inferences in authentic and selected academic and general reading passages of several passages; and (2) produce a well-developed essay, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	91	Advanced 2 Reading/Writing	On completing the Advanced 2 Reading/Writing course, a student will be able to (1) recognize the main ideas and supporting details, and determine logical inferences in authentic and selected academic and general reading passages of several passages; and (2) produce a well-developed essay, based on an assigned writing task, with an objective point of view, demonstrating level-appropriate word choice and control of mechanics and grammar.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	9.		
AEC	92	Advanced Grammar	This course covers complex sentence structure, participial phrases, reduced adjective clauses and appositives, infinitives and gerunds, hypothetical conditionals, and the subjunctive.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	92	Advanced Grammar	This course covers complex sentence structure, participial phrases, reduced adjective clauses and appositives, infinitives and gerunds, hypothetical conditionals, and the subjunctive.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	93	Advanced Communication Special Topic	Learn to communicate effectively at the advanced level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	93	Advanced Communication Special Topic	Learn to communicate effectively at the advanced level in a variety of everyday situations and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	94	Business English Special Topic	Learn to communicate effectively in a variety of business situations and develop English skills necessary for success in today's business world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	94	Business English Special Topic	Learn to communicate effectively in a variety of business situations and develop English skills necessary for success in today's business world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	95	American Culture Studies Special Topic	Learn about American culture and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	95	American Culture Studies Special Topic	Learn about American culture and develop communication skills necessary for success in today's world.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	96	Academic English Studies Special Topic	Learn the Academic English necessary for success at an American university or college.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	96	Academic English Studies Special Topic	Learn the Academic English necessary for success at an American university or college.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	3.		
AEC	97	Advanced TOEFL	Improve test-taking strategies for specific areas of the iBT (Internet-Based test) TOEFL and the Institutional (paper and pencil) TOEFL. This is an elective course that meets six hours per week. This course also includes FREE Institutional TOEFL Test while this form of the TOEFL is still available.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	6.		
AEC	97	Advanced TOEFL	Improve test-taking strategies for specific areas of the iBT (Internet-Based test) TOEFL and the Institutional (paper and pencil) TOEFL. This is an elective course that meets six hours per week. This course also includes FREE Institutional TOEFL Test while this form of the TOEFL is still available.	Y	LEC	Y	GNA	University College	NC American English and Culture Program	6.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEC	X98	ESL Credit Course Special Topic	These courses are introductions to the university environment and to volunteerism in the community. A student will have opportunities to interact and to be exposed various aspects of American culture. These AECP elective courses can also be taken for 3 ASU credits which may be applied to a degree program.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X98	ESL Credit Course Special Topic	These courses are introductions to the university environment and to volunteerism in the community. A student will have opportunities to interact and to be exposed various aspects of American culture. These AECP elective courses can also be taken for 3 ASU credits which may be applied to a degree program.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X99	International Teaching Assistants Training	The ITA training Seminar is a no-fee course offered to international students who are candidates for a teaching assistantship. The seminar is a non-credit semester long course which addresses language improvement, teaching skills, and cross-cultural training.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEC	X99	International Teaching Assistants Training	The ITA training Seminar is a no-fee course offered to international students who are candidates for a teaching assistantship. The seminar is a non-credit semester long course which addresses language improvement, teaching skills, and cross-cultural training.	N	LEC	Y	OPT	University College	NC American English and Culture Program	3.		
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
AEP	501	Foundations of Ethics I	Studies primary texts of classic ethical theories and their applications to various issues in daily life and the professions. Ethical traditions include some of these frameworks: virtue ethics and natural law ethics, consequentialism and contractualism, deontology and critical communitarianism. Pays attention to the shifting nature of the relation between ethics and religion. In the applied, activity-portion of the course, students investigate real-life ethical issues and examine them from several normative perspectives	N	SEM	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Students who have credit for PHI 501, or REL 581, may not enroll in AEP 501

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AEP	502	Foundations of Ethics II	Studies contemporary moral philosophy and social ethics and their applications to the pressing issues of the present age. Considers some of these sources for ethical thinking in the twentieth century and their relation to classic traditions: existential ethics, critical theory, race and gender theory, postmodern ethics, and post-Holocaust ethics. Examines the possibility of an ethic suitable for the global coexistence among secular, spiritual, and postsecular perspectives. In the applied, activity-portion of the course, students investigate real-life ethical issues with a global significance and examine them from several contemporary perspectives.	N	SEM	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Completed AEP 501. Students with credit in PHI 502 or REL 582, may not enroll in AEP 502
AEP	550	Ethical and Spiritual Issues in Pastoral Care	Recalling the ancient Socratic, biblical, and other spiritual traditions of the cura animarum (care for and cure of the soul) and joining contemporary post/secular conversations relevant to the integration of the body-mind-spirit, this course introduces basic concepts and practices of the pastoral care ethics and spirituality. Focuses on the irreducible relations among existential (ontological), therapeutic (psychosomatic), and spiritual (religious) dimensions of care. The theoretical part of the course is inter-faith in approach, holistic in scope, and specialized in content; in the applied, activity-portion of the seminar, students investigate real-life issues in care ethics and spirituality and examine them from several perspectives studied during the semester.	N	SEM	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: AEP 501 and AEP 502 with a D or better; students who have credit for PHI 550 or REL 585, may not enroll in AEP 550
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-4		
AEP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
AEP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
AES	101	Air Force Today I	Introduces U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	102	Leadership Lab	Emphasizes common Air Force customs and courtesies, drill and ceremonies, health and physical fitness through group participation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AES	103	Air Force Today II	Continuation of AES 101. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	104	Leadership Lab	Continuation of AES 102 with more in-depth emphasis on learning the environment of an Air Force officer.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
AES	201	The Evolution of USAF Air and Space Power I	Further preparation of the AFROTC candidate. Topics include: Air Force heritage and leaders, communication skills, ethics, leadership, quality Air Force, and values.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	202	Leadership Lab	Application of advanced drill and ceremonies, issuing commands, knowing flag etiquette, and developing, directing, and evaluating skills to lead others.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	203	The Evolution of USAF Air and Space Power II	Continuation of AES 201. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	2.		
AES	204	Leadership Lab	Continuation of AES 202 with emphasis on preparation for field training.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-4		
AES	301	Air Force Leadership Studies I	Study of communication skills, leadership and quality management fundamentals, leadership ethics, and professional knowledge required of an Air Force officer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	302	Leadership Lab	Advanced leadership experiences applying leadership and management principles to motivate and enhance the performance of other cadets.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	303	Air Force Leadership Studies II	Continuation of AES 301. Topics include: communication skills, ethics, leadership, professional knowledge, and quality management required of an Air Force officer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	304	Leadership Lab	Continuation of AES 302 with emphasis on planning the military activities of the cadet corps and applying advanced leadership methods.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	401	National Security Affairs	Examines advanced ethics, Air Force doctrine, national security process, and regional studies. Special topics include: civilian control of the military, military justice, and officership.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.	L	
AES	402	Leadership Lab	Advanced leadership experience demonstrating learned skills in planning and controlling the military activities of the corps.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	403	Preparation for Active Duty II	Continuation of AES 401. Topics include: civilian control of the military, doctrine, ethics, military justice, the national security process, and officership.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	3.		
AES	404	Leadership Lab	Continuation of AES 402 with emphasis on preparation for transition from civilian to military life.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	0.		
AES	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Aerospace Studies	1-7		
AES	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	N	Z1	Liberal Arts and Sciences	Department of Aerospace Studies	1-3		
AES	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Aerospace Studies	1-12		
AET	191	First-Year Seminar		Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
AET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	210	Measurements and Testing	Measurement systems, components, system response, and the characteristics of experimental data.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 112 or PHY 131 with D or better
AET	215	Aircraft Systems	Principles and design features of aircraft structures, systems, and materials.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
AET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	300	Aircraft Design I	Applied aerodynamics, standard atmosphere, speed measurement, infinite and finite wings, airplane performance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: AET 215; MET 211, ECE 210, or MAE 212

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AET	310	Instrumentation	Measurement systems, components, system response, and the characteristics of experimental data. Methods of collecting and analyzing data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MAT 261, MAT 271 or MAT 274 with D or better; AET 210 or EET 208 with D or better
AET	312	Applied Engineering Mechanics: Dynamics	Masses; motion kinematics; dynamics of machinery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: APM 271, MAT 261 or MAT 271 with D or better; CON 221, ETC 211, ECE 210, MAE 212 or MET 211 with D or better
AET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	396	Aerospace Professional Orientation	Career focus for Aeronautical Engineering Technology students. Familiarization with the aerospace industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisite: Junior or higher academic level
AET	415	Gas Dynamics and Propulsion	Introduces compressible flow, internal and external flow, and aerothermodynamic analysis of propulsion systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 or MAE 340 OR Technology and Innovation or Fulton Engineering Graduate student
AET	417	Aerospace Structures	Analysis and design of aircraft and aerospace structures. Shear flow. Semimonocoque structures. Effects of dynamic loading.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 313 (or ECE 313) with D or better; AET 312 (or ECE 312) with D or better; AET 300 with D or better OR Technology and Innovation or Fulton Engineering graduate student
AET	420	Experimental Aerodynamics and Wind Tunnels	Experimental applied aerodynamics related to aeronautical and mechanical design. Wind tunnel design and testing. Low speed flows.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: AET 300 with D or better; MET432 with D or better
AET	432	Applied Heat Transfer	Heat transfer by conduction, convection, and radiation. Applies heat transfer to engineering design problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: ETC 340 or MET 340 with D or better (or co-enrolled in ETC 340); may not enroll in AET 432 if credit received in AET 524
AET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Technology and Innovation BS student; Minimum cumulative GPA of 3.00; Minimum Junior standing
AET	487	Aircraft Design II	Basic aerodynamics and airplane performance analysis methods applied to practical design project.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: AET 300 with D or better; Senior academic level OR Technology and Innovation or Fulton Engineering graduate student
AET	492	Honors Directed Study		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6		
AET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
AET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Manufacturing Engineering Technology students; Minimum cumulative GPA of 2.00
AET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Manufacturing Engineering Technology students; Minimum cumulative GPA of 2.00
AET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
AET	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	524	Application of Heat Transfer	Energy conservation, steady-state and transient conduction, convection transfer, free and forced convection Reynolds analogy, blackbody and environmental radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 or MAE 340 with D or better; May not enroll in AET 524 if you have credit in AET 432
AET	525	Advanced Propulsion	Mechanics and thermodynamics of propulsion systems. Solid, liquid propellant rocket design performance. Electrical nuclear propulsion systems. Space missions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 434, AET 415 or MAE 340
AET	560	Numerical Methods in Engineering Technology	Analyzes problems in physical sciences, models physical problems, perturbation techniques, curvefitting, data analysis, numerical solutions, ordinary and partial differential equations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Technology Innovation or Fulton Engineering students; Senior or higher academic level
AET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		

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AET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
AET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		
AET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
AFH	202	Art of Africa, Oceania, and the Americas	History of art of Africa, Oceania, and the New World. Meets non-Western art history requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & H & G	
AFH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	300	Precolonial Africa	Surveys social, economic, political, cultural, and economic institutions and civilizations of Africa before European colonialism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	303	African and African American Art	Anthropological perspective of African and African American visual art traditions from the past to 1970.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	305	The Global History of the Trans-Atlantic Slave Trade	Origins, development, abolition, and impact of Atlantic slave trade as a global economic enterprise and great human tragedy; slavery experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	318	African and African Diaspora Women Writers	Intersection of race, class, gender, and ethnicity in black women's fiction from the United States, the Caribbean, and Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & G	
AFH	319	Black Experience in Latin America	Examines several aspects of the experience of Africans in the Latin America diaspora; comparisons with United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	331	Studies in African American Women Writers of Pre-Harlem Renaissance	Focuses on novels, short stories, essays, speeches, and dramas that gave voices to African American woman in pre-Harlem Renaissance era. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	
AFH	335	Survey of African Literatures	Intersection of colonialism, race, class, gender, nationalism, postcoloniality, social transformation, and ethnicity in African writers' fiction and literary production.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees. Fee (hybrid/Internet).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
AFH	353	African American Literature: Beginnings through the Harlem Renaissance	Focuses on the history of African American literature through the Harlem Renaissance, as exemplified in selected slave narratives, poems, and fiction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	
AFH	354	African American Literature: Harlem Renaissance to the Present	Examines the literary productions of African Americans from the Harlem Renaissance (about 1920) to the present focusing on fiction, poetry, drama, and essays.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
AFH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	459	Studies in African American/Caribbean Literatures	Studies in African American or Caribbean literatures according to genre, period, theory, or selected authors. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	
AFH	465	Harlem Renaissance: a Cultural History: 1877-1945	Socio-political, historical contexts and worldwide ramifications of the cultural productions (theater, music, visual arts, and literature) of the Harlem Renaissance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFH	492	Honors Directed Study		N	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFH	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
AFH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFH	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		

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AFH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	191	First Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
AFR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	210	Introduction to African American Studies	Examines the political, historical, and cultural origins of African American studies as an academic discipline.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	317	Genes, Race and Society	Examines history of biological and social constructions of race in western society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFR	335	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Students who have credit for TCL 335, may not enroll in AFR 335
AFR	375	Race, Gender and Sport	Interdisciplinary examination of the social concepts of race and gender and their economic impact on sports in America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
AFR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	428	Critical Race Theory	Examines ways in which race has been historically utilized, constructed, and contested in American civil society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	429	African American Studies Theory and Methods	Examines social and behavioral science theories and methodological procedures pertaining to African Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	460	Race, Gender and Media	Reading seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	490	Field Studies in the Diaspora	Introduces methods and principles of research applied to Black communities within and outside Arizona. Involves working with field officer and faculty.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
AFR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		
AFR	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-7		
AFR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	508	Colonial Rule and the African Experience	Impact of European colonial rule on the shaping of African consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	525	Foundations of Caribbean Studies	Broad interdisciplinary understanding of the Caribbean that surveys the region's history, politics, economy, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AFR	526	Selected Topics in Caribbean Politics	In-depth understanding of the impact of selected topics on the political economy and social infrastructure of the Caribbean.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	IND	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		

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AFR	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
AFR	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFR	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
AFR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
AFS	200	Introduction to African and African Diaspora Studies	Introduces the study of African and African-descended peoples; theory, themes, and perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	202	Immigration and Ethnic Relations in the U.S.	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFS	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
AFS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	301	Race and Racism in Africa/African Diaspora	Construction of race, racism, and race relations in Africa/African Diaspora; practices of agency to challenge ethnicity, racism, and racial oppression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	304	Islands of Globalization: Caribbean Political Economy	Impact of globalization on the economic, political, and social condition of the islands and mainland countries of the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	310	African/African American Psychology	Historical and contemporary overview of the development of African/Black psychology and African American frame of reference.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	312	Contemporary African and African Diaspora Women	Explores recent literary, theoretical, and methodological themes concerning the study of African/African Diaspora women and the phenomena of modernization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	320	Africa: Politics, Environment, and Development	Uses African experience to understand the consequences of human environment relationships, wealth and power differentials, and individual and global citizenship.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	327	Human Rights in Africa	Comparative study of human rights focusing on colonial and post-colonial Africa from historical and contemporary perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	332	Life and Death in Ancient Egypt	Reveals ancient Egyptian life through recent research in archaeology and physical anthropology on cemeteries, tombs, and the dead themselves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisite: ASB 222
AFS	340	The Making of Modern Africa	Events and processes leading to the colonization of Africa and subsequent changes in African societies under colonial rule and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	345	The Making of the Caribbean Society	Historical socioeconomic and political factors and institutions creating the wider Caribbean from the 15th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	355	Democracy and Civil Society in Africa	Examines contending perspectives on the state and civil society and democratic struggles using sub-Saharan Africa and case study.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	360	Black Families in the Diaspora: U.S. and Caribbean	Comparative study of historical and current themes in the structure and internal dynamics of African Diaspora families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	363	African American History to 1865	The African American in American history, thought, and culture from slavery to 1865.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & H & C	
AFS	364	African American History Since 1865	The African American in American history, thought, and culture from 1865 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C & H	
AFS	366	African Archaeology: Precolonial Urban Culture	Overview of African civilization from the last 10,000 years up to 1850 via archaeological, documentary, and oral data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	370	Family, Ethnic, and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	

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AFS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	415	Black Political Thought and the Limits of Liberal Democracy	Black political and social thought; conflict between liberal democratic ideals and structures of domination and exploration from African Diaspora perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	466	Peoples and Cultures of Africa	Surveys African peoples and their cultures, external contact, and changes. Meets non-Western requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G & H	
AFS	480	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
AFS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
AFS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
AFS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
AFS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
AGB	420	Food Marketing	Food processing, packaging, distribution, market research, new food research and development, and social implications.	N	LEC	N	OPT	Morrison Sch of Agribusiness	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	420	Food Marketing	Food processing, packaging, distribution, market research, new food research and development, and social implications.	N	LEC	N	OPT	Morrison Sch of Agribusiness	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	100	Introduction to Agribusiness	Overview of agribusiness industries and career opportunities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	161	Computer Applications for Agribusiness Industries	Uses and integrates word processing, spreadsheets, and databases as tools for managing an agribusiness firm.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.	CS	
AGB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-4		
AGB	271	Veterinary Medicine Today	Introduces the role of the veterinarian as related to the fields of food supply and veterinary medicine.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-4		
AGB	302	International Management and Agribusiness	Management and agribusiness issues in the transition of developing countries from subsistence to global operations and competition.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.	G	Prerequisites: ECN 212 with grade of C or better
AGB	321	Agribusiness Marketing II	Examines the food marketing system with emphasis on the marketing institutions, arrangements, and methods for basic commodities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	333	Agribusiness Finance II	Introduces financial markets and institutions. Interest rate determination, money and banking, equity markets, farm credit system, vendor financing.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	340	Food Processing	Introduces processed food quality assurance, statistical sampling, and inspection procedures.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	360	Agribusiness Statistics	Statistical methods with applications in agribusiness and resource management.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.	CS	
AGB	366	Agribusiness Production Technologies	Examines methods for managing diverse crop and livestock enterprises with an emphasis on growth, development, marketing, and loss prevention.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	367	Agribusiness Processing Technologies	Biotechnology and other methods used in the production, processing, and distribution of food.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	372	Introduction to Veterinary Practice Management Module I	Initial offering of a three-module program that is an overview of the operation of a veterinary practice.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	373	Veterinary Practice Management Module II: Human Resources	Intermediate course of a three-module program covering human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	374	Veterinary Practice Management Module III: Finance and Marketing	Final course of a three-module program covering financial and marketing issues faced by veterinary practice managers.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		

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AGB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-4		
AGB	410	Agribusiness Management II	Principles of human resource management in agribusiness firms.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	411	Agricultural Cooperatives	Organization, operation, and management of agricultural cooperatives.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	414	Agribusiness Analysis	Analysis of agribusiness firm decisions in the ecological, economic, social, and political environments. Special emphasis on ethical issues surrounding food production and consumption.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.	L	Pre-requisites: W. P. Carey BS or BA student and minimum 87 earned hours and FIN 300, MGT 300, MKT 300, SCM 300 with a C or better. May not enroll if completed BUA 440 or BUA 441 with a C or better.
AGB	422	Consumer Behavior	Applies behavioral concepts in analyzing consumer food purchases and their implications for marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		Pre-requisite: MKT 300
AGB	424	Agribusiness Sales	Principles and techniques of selling and merchandising in the agricultural and food industries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	425	Agricultural Marketing Channels	Operational stages of agricultural commodities in normal distribution systems and implementation of marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	429	Marketing Research	Examines the marketing research process and its role in facilitating agribusiness decisions. Emphasizes problem identification, survey design, and data analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		Pre-requisites: AGB 321 and MKT 300 with C or better.
AGB	431	Intermediate Agribusiness Financial Management	Comprehensive treatment of topics in financial management of agribusiness: capital structure, dividend policy, asset valuation, mergers and acquisitions, risk management.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	433	Intermediate Agribusiness Financial Markets	Role and function of agribusiness in U.S. financial system. Topics include rural banking, farm credit system, monetary policy, and federal reserve.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	434	Agricultural Risk Management and Insurance	Strategies to manage agricultural price and business risk: derivatives, insurance, self-insurance, and public policy.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	435	Agricultural Commodities	Trading on futures markets. Emphasis on the hedging practices with grains and meats. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		Pre-requisites: FIN 300 with a C or better.
AGB	436	Entrepreneurship and Financial Management of E-Commerce	Uses lectures, case studies, and business plans to highlight challenges of starting and running a small business.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	440	Food Safety	Control, prevention, and prediction of microbial and chemical food-borne diseases.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	442	Food and Industrial Microbiology	Food- and industrial-related microorganisms; deterioration and preservation of industrial commodities. Lecture, lab.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	4.		
AGB	445	Food Retailing	Food retail management. Discusses trends, problems, and functions of food retail managers within various retail institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		Pre-requisite: MKT 300 with C or better.
AGB	451	Management Science	Focuses on the construction, solution, and interpretation of quantitative models used for management decision making in agribusiness firms.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.	CS	Pre-requisites: W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA OR Non-degree or Graduate student.
AGB	452	International Agricultural Policy	Use of international trade theory to analyze the effects of government policies, trade agreements, and exchange rates on agribusiness.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	454	International Trade	International practices in trading of agribusiness, technology, and resource products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		Pre-requisite: FIN 300 with C or better
AGB	455	Resource Management	Explores differences between societal and individual valuations of natural resources; considers public policy versus market-based solutions to environmental concerns.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.	SB	
AGB	460	Agribusiness Management Systems	Development and use of decision support systems for agribusiness management and marketing.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		Pre-requisites: 56 hours or more; FIN 300; MGT 300; MKT 300
AGB	465	Organic Farming Technologies	Organic farming methods, including certification, soil fertility, planting, integrated pest management, irrigation, cover crops, rotations, and marketing farm products.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	470	Comparative Nutrition	Effects of nutrition on animal systems and metabolic functions.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	481	Applied Microeconomics	Emphasizes application of the theory of the firm, theory of exchange, and consumer theory.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-6		
AGB	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-6	L	Pre-requisites: Must be an Honors student
AGB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AGB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-7		
AGB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-3		
AGB	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	511	Advanced Agribusiness Management	Analysis of organization behavior, change, and resource requirements within agribusiness systems.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	513	Advanced Cooperatives	Advanced study of cooperatives and other nongovernmental organizations (NGO) focusing on management and proposal preparation for international agencies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	514	Advanced Agribusiness Analysis	Vertical integration and differentiation in food and agricultural industries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	528	Advanced Agribusiness Marketing	Theory and analysis of marketing farm commodities, risks, and the effect of future trading on cash prices.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	529	Advanced Agribusiness Marketing Channels	Analyzes agribusiness market channel systems. Formulation of marketing strategies.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	532	Advanced Agribusiness Finance	Financial management of agribusiness firms; agribusiness financial analysis, investment analysis, agricultural risk management, and introduction to agricultural financial intermediaries.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	535	Commodity Analysis	Analysis of commodity markets.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	540	Advanced Food Science	Chemical and physical nature of processed foods. Emphasizes food product development.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	550	International Agricultural Development	Transition of developing countries from subsistence to modern agriculture. Emphasis placed on implications for U.S. agribusiness working abroad.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	552	International Agricultural Policy	Uses international trade theory to analyze the effects of government policies, trade agreements, and exchange rates on agribusiness.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	554	Advanced International Trade	Advanced international practices in trading of agribusiness, technology, and resource products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	560	Advanced Agribusiness Management Systems	Development and use of decision support systems for agribusiness management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	561	Applied Econometrics	Uses model building, hypothesis testing, and empirical analysis in solving agribusiness problems.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	570	Managerial Economics for Agribusiness	Concepts in micro- and macroeconomics applied to agribusiness management environments: price formation, market structure, information economics, fiscal and monetary policy.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	581	Advanced Agribusiness Policy	Policy-making history, structure, and process.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	589	Agribusiness Capstone	Strategic management of organizations focusing on developing value-creating strategies in dynamic environments.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		

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AGB	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		
AGB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-4		
AGB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	701	Advanced Agribusiness I	Advanced topics include demand analysis, empirical industrial organization, welfare economics, agricultural policy, international trade, and consumer behavior.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	702	Advanced Agribusiness II	Topics include macromarketing, marketing research, futures and options markets, derivatives, risk management, financial innovation, and forecasting.	N	LEL	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	703	Agribusiness Research Methods	Survey course in current research methods in economics, marketing, finance, and management as applied to agribusiness topics. May be repeated for credit.	N	SEM	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
AGB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
AGB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-15		
AGB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-15		
AIS	180	Introduction to American Indian Studies	Introduces the study of American Indian justice issues from an interdisciplinary perspective. Primary topics include sovereignty, law, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	
AIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	280	American Indian Sovereignty and the Courts	Examines the sovereign status of American Indians and legal relationships between the tribes and the U.S. government.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	H & C	
AIS	285	Federal Indian Policy	Examines the sovereign status of American Indians and legal relationships between the tribes and the U.S. government.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	H & C	
AIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	370	American Indian Languages and Cultures	Emphasizes understanding of Indian language families and the relationship of oral traditions to culture.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	Pre-requisite: AIS 180 with C or better
AIS	380	Contemporary Issues of American Indian Nations	Surveys legal, socioeconomic, political, and educational state of contemporary reservation and urban Indians.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	C	
AIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	420	American Indian Studies Research Methods	Surveys diverse research methods, including statistical, historical, interpretative, and narrative approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	American Indian Studies Program	3.	L	Pre-requisite: AIS 180 with C or better
AIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-12		
AIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
AIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-7		

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AIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-3		
AIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	American Indian Studies Program	1-12		
AIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	American Indian Studies Program	1-4		
ALA	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H & G	
ALA	102	Architecture, Landscape Architecture, and Society	Examines interrelationship between society and the landscape with emphasis on human involvement in shaping the landscape.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	G	
ALA	121	Design Fundamentals I	Development of visual literacy. Introduces drawing and graphic representation as methods of seeing and problem solving.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Architecture or Landscape Architecture student
ALA	122	Design Fundamentals II	Exercises in basic design, stressing creative problem-solving methods, principles of composition, and aesthetic evaluation. Development of vocabulary for environmental design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Architecture or Landscape Architecture student; ALA 121 with a C or better; Co-requisite: ALA 124
ALA	124	Design Fundamentals II Lecture	Theory and applications of basic design principles, history and theory of how architecture and landscape architecture design is impacted by basic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Architecture or Landscape Architecture student; Co-requisite: ALA 122
ALA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ALA	200	Introduction to Architecture	Surveys issues and polemics affecting current architectural theory and practice.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & G	
ALA	225	Design Fundamentals III	Applies design fundamentals with an emphasis on architectural and landscape architectural issues.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Architecture or Landscape Architecture student; ALA 122 with a C or better; Passed milestone; Co-requisite: ALA 227 and ALA 235;
ALA	226	Design Fundamentals IV	Basic design, stressing creative problem-solving methods, principles of composition, and aesthetic evaluation. Development of vocabulary for environmental design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		Pre-requisites: ALA 225 with C or better
ALA	227	Design Fundamentals III Lecture	History and theory of design fundamentals with an emphasis on architectural and landscape architectural design issues.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Architecture or Landscape Architecture student; Co-requisite: ALA 225 and ALA 235
ALA	235	Introduction to Computer Modeling	Fundamentals of computer operation, geographic information systems, geometric modeling of 3-D forms and rendering of light, mathematical modeling of processes using spreadsheets.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	CS	Pre-requisites: Architecture or Landscape Architecture student; Co-requisites: ALA 225 and ALA 227
ALA	240	Building Construction	Fundamentals of building construction through digital simulation of case study buildings. Construction systems, detailing, and conventions by building 3-dimensional digital model.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be either Pre-Architectural Studies or Pre-Landscape Architecture student; Co-requisites: ALA 222 and ALA 224
ALA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ALD	101	Introduction to Aging Issues	Introduces students to general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in midlife and beyond, living options, caregiving, and retirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	
ALD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-3		
ALD	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	202	Field Placement I	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	203	Field Placement II	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202

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ALD	204	Field Placement III	Provides students an opportunity to work directly with older adults in a variety of settings.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better; ALD 202; ALD 203
ALD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	301	Research Methods in Aging	Examines social science approaches to the study of aging. Includes particular methodological issues that must be considered when studying older adults.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1.		Pre-requisites: ALD 101 with C or better or currently enrolled
ALD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	403	Aging, Lifespan Development, and the Family	Analyzes aging issues and their effects on family members of older adults. Integrates social policy, health, and relational factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
ALD	404	Sexuality in Mid-Life and Beyond	Analyzes physical changes, myths and stereotypes, gender issues, and relationship issues pertaining to sexuality in the middle and older adult years.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
ALD	420	Health Issues and Older Adults	Analyzes and synthesizes the biological, social, and behavioral aspects of health and healthcare delivery in the later adult years.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.	SB	Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
ALD	431	Caregiving for Older Adults	In-depth analysis of the theory and practice of caregiving for the senior population. Integrates multiple perspectives (family caregivers, professionals, paraprofessionals, government, and industry policies).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
ALD	440	Social Policy and Aging	Critical analysis and evaluation of the historical, socio-political, and economic issues that are specific to older Americans. Includes federal, state, and local policy issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
ALD	460	Alzheimer's and Related Dementias	In-depth analysis of Alzheimer's disease and related dementias from a caregiver's perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
ALD	472	Women, Aging, and the Life Course	Critical evaluation of issues affecting women as they age, including media messages, cultural differences, economic issues, and relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
ALD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-6	L	Pre-requisites: Must be an Honors student
ALD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-7		
ALD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-3		
ALD	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	505	Perspectives on Aging and the Life Course	Overview of general issues of aging, including theoretical background, influences of earlier-life experiences, physical changes, social policies, relationships in mid-life and beyond, living options, caregiving, and retirement. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ALD	520	Health Aspects of Aging Adults	Examines biological, social, and behavioral aspects of health in the later years, and the organization and delivery of care. Includes an emphasis on wellness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking); ALD 505 with a grade of C or better, or co-enrolled. Credit is allowed for only ALD 420 or 520
ALD	525	Mental Health in Midlife and Beyond	Focuses on the psychological, emotional, and cognitive changes as individuals age. Includes assessment and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ALD	531	Caregiving Issues for Families and Professionals	Examines the issues of caregiving by family members, in-home aids, and professionals in care facilities. Focuses on issues related to providing care to older adults in a variety of settings. Includes social policy toward caregiving, caregiver stress and reward, the role of social workers, and cultural concerns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre/Co-requisites: ALD 505 with C or better if completed; Credit is allowed for only ALD 431, 531 or FAS 421
ALD	535	Physical Activity and Aging	Examines and discusses the theoretical and applied health-related research on physical activity and aging.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		
ALD	540	Public Policy Issues and Aging	Examines in detail the historical, socio-political, and economic issues that are specific to older Americans at the federal, state, and local levels. Requires applied project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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ALD	545	Elder Abuse and Neglect	Provides a comprehensive review of crimes against older adults. Includes all types of abuse and neglect, as well as prevention, intervention, and public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate students only
ALD	560	Dementia	Thorough examination of dementia and dementia syndromes, including Alzheimer's disease. Includes the complexity and diversity of behaviors that define dementia, and implications for planning interventions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking); Credit is allowed for only ALD 460 or 560
ALD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-4		
ALD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Liberal Arts and Sciences	School of Aging and Lifespan Development	1-12		
ALT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	360	Renewable Energy Technologies: Fundamentals and Integration	Technical fundamentals, economic, and social aspects of renewable energy technologies with emphasis on solar cells, hydrogen economy, and fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	401	Hydrogen Generation, Storage, and Distribution	Overview of primary technologies, economic aspects, and social policy issues related to development of hydrogen systems and hydrogen economy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for ALT 501, may not enroll in ALT 401
ALT	405	Power Conditioning	Fundamentals of power electronics; DC-DC converters and DC-AC inverters; battery charge controllers. Lab experience.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for ALT 505, may not enroll in ALT 405
ALT	410	Solar Cells and Module	Basic device physics and engineering of solar cells. Lab experience on fabrication, characterization, and testing of solar cells and module.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	420	Electrochemical Energy Technologies	Thermodynamic and electrochemical principles of fuel cells. Hands-on experience on fabrication and testing of fuel cells; problem solving skills.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	435	Applied Photovoltaics	Overview of solar radiation, operating principles of photovoltaics, qualitative analysis on influencing parameters. market trends, basics of PV systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Students who have credit for ALT 535, may not enroll in ALT 435
ALT	445	Automotive and Stationary Fuel Cell Systems	Practical overview of fuel cell systems for stationary, residential, and transportation applications based on load and duty cycle requirement of specific application.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students with credit for ALT 545, may not enroll in ALT 445
ALT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		

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ALT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
ALT	501	Advanced Renewable Energy: Global Hydrogen Economy	Global, comprehensive evaluation of all renewable energy sources with focus on solar cells, hydrogen, and fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for ALT 401, may not enroll in ALT 501
ALT	502	Batteries for Portable Electronics	Theoretical and practical overview of primary, secondary, and lithium batteries. Key performance characteristics, construction materials, typical applications, recycling, and disposal.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	503	Fuel Cells for Portable Electronics	Overview of electrochemistry, portable electronics industry, principles of fuel cells, and prospects for micro fuel cells.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	505	Power Conditioning	Fundamentals of power electronics, DC-DC converters and DC-AC inverters, battery charge controllers.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Credit is allowed for only ALT 405 or 505
ALT	506	Fuel Cell Integration and Packaging	Practical overview of integration and packaging of fuel cell system, which comprises a fuel processor module, a fuel cell module.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	507	Evaluations of Photovoltaic and Fuel Cell Systems	Field testing, data collection, and evaluation of real-world photovoltaic and fuel cell systems available on campus and data analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	515	Alternative Energy Reliability and Standards	Alternative energy systems and their reliability issues, accelerated life and safety testing, standards and codes, regulatory requirements.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
ALT	535	Applied Photovoltaics	Term projects, overview of solar radiation, operating principles, qualitative analysis on influencing parameters, market trends, basics of PV systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students with credit in ALT 435, may not enroll in ALT 535
ALT	545	Automotive and Stationary Fuel Cell Systems	Practical overview of fuel cell systems for stationary, residential, and transportation applications based on load and duty cycle requirement of specific applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for ALT 445, may not enroll in ALT 545
ALT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
AME	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-6		
AME	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-6	L	Pre-requisites: Must be an Honors student
AME	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		
AME	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-7		
AME	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-3		
AME	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	590	Reading And Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AME	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-12		
AME	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-15		
AME	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	Arts, Media and Engineering Sch T	1-15		
AML	100	Introduction to Applied Mathematics for the Life and Social Sciences	Introduces quantitative techniques as applied to problems in the life and social sciences. Includes challenges like understanding the complexities of the human genome or the implications of globalization for infectious disease, human health, and economic stability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
AML	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students. Must have taken 25 or fewer semester hours. Consulting an academic advisor before enrolling is recommended.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
AML	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	330	Social Simulation	Introduces computer simulation and agent-based modeling to study social systems.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
AML	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	406	Directed Reading and Research in Applied Mathematics for the Life and Social Sciences	Collaborative, practice-oriented course where students produce individual or team-initiated research project reports on pertinent topics in the life and social sciences. Students select topics, design, identify and formulate effective research ideas, and then translate them into clear and effective research plans.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Completed at least two from the following: MAT 270, 271, 272; AND STP 226 (or 231 or 420)
AML	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
AML	492	Honors Directed Study		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	493	Honors Thesis		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
AML	497	Honors Colloquium		Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
AML	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
AML	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
AML	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AML	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	610	Topics in Applied Mathematics for the Life and Social Sciences	Introductory course in applied mathematics for the life and social sciences, combined with the first semester of a two-semester course in mathematical biology. Provides a solid introduction to the modeling of biological and social processes as well as to some of the mathematical approaches involved in their analysis and simulation.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	611	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	612	Applied Mathematics for the Life and Social Sciences Modeling Seminar	Presents and applies mathematical modeling principles and techniques for representing the structure and operation of complex life and social systems and processes. Helps students identify potential problems in the life and social sciences and the corresponding mathematical and statistical methods that can be used for their study.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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AML	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AML	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
AMS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
AMS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	301	Introduction to American Studies	Introduces the interdisciplinary study of American culture, emphasizing critical reading and writing skills.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	
AMS	310	History of American Systems to 1865	First of a two-part survey of political, legal, and economic institutions, placed in the context of the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	311	History of American Systems Since 1865	Second in a two-part survey of political, legal, and economic institutions, placed in the context of a dynamic industrialist capitalist society, from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	314	Military Studies	Topics in the history of the American military.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	316	American Religious Systems	Topics in American religion; may include Hispanic missions of the Southwest. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	320	American Cultural History I	First of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the nation's colonial background and early national period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
AMS	321	American Cultural History II	Second of a two-part survey of American culture, broadly defined as historically transmitted patterns of meaning expressed in symbolic forms, including ideas, ideals, the arts, and social and economic standards from the age of industrialism and modern America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
AMS	322	Studies in American Literature	Topics in American literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	323	Studies in American Art and Architecture	Topics in the visual arts and material culture. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	326	Popular Culture	Topics in American popular culture, including theories of popular culture; the history and analysis of mass media, including television, film, and the music industry; and vernacular art and the folk tradition.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	327	Regional Cultures	Examines the concept of regionalism and regional cultures in America with a special emphasis on the Southwest/Borderlands.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	330	Introduction to American Lives	Examines American society through the study of autobiography and ethnography.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
AMS	332	Studies in Race and Ethnicity	Topics relating to issues of race and ethnicity in American life. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AMS	334	The American Class System	Studies in social classes and their function within American society. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	335	American Biography	Topics in biographies of individuals, comparative biographies, the art of biography, and the function of autobiography.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	342	Writing about American Culture	Teaches methods of writing cultural criticism, emphasizing the essay form.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	344	Creative Writing	Emphasizes the study and practice of creative nonfiction. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	345	Reporting	Fundamentals of news gathering, interviewing, and in-depth reporting.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	346	Editing	Theory and practice of editing.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	351	Technical Writing	Computer-based instruction in writing documents for online, oral, and print formats, focusing on audience-centered rhetoric.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	412	Studies in American Politics & Law	Topics in American political and legal systems, including social movements in the United States and women and the law. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	414	Military Studies	Topics in the history of the American military. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	417	Religious Traditions of the American Southwest	Examines the sacred traditions that have evolved within the North American Southwest context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	422	Studies in American Literature	Topics in American literature, including contemporary American comic fiction, literature of the American South, literature of American wars, Hispanic chronicles of the Southwest, literature of la Chicana, and American rhetoric. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	428	Chicano Cultures in the Southwest	Examines and explores Chicana and Chicano culture as place and sentiment. The physical place and space and the sentiment related to Chicanas and Chicanos.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
AMS	429	Interdisciplinary Topics	Senior-level seminar that examines issues relevant to two or more American cultures' fields. Topics may include Southwest/border Hispanic folklore, Southwestern corridors, American art and the city, and the West of the imagination. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	431	Gender Studies	Topics relating to issues of gender in American life. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	432	Studies in Race and Ethnicity	Topics relating to issues of race and ethnicity in American life. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
AMS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	490	Writing Certificate Portfolio	Preparing a portfolio demonstrating advanced writing skills. Limited to and required of students in the Writing Certificate Program.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		
AMS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
AMS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
AMS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AMS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		Pre-requisites: ENG 101 or 105 with C or better; AMS 301 with C or better
AMS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
AMS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AMS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
AMT	100	Flight Operations and Safety I	Supervised private pilot flight training and flight safety briefings and recurrent aviation subjects appropriate for private pilots. Requires continuous enrollment until completion of FAA Private Pilot Certificate. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	2.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND must have C or greater in AMT 182 and AMT 220 OR Corequisite: AMT220 and AMT182
AMT	101	Introduction to Aeronautical Management Technology	Facilitates entry into aeronautical management technology programs. Emphasizes General Catalog; major and concentration requirements, registration, careers, and Polytechnic campus resources. Introduces various learning styles and strategies that assist students in becoming successful learners. Emphasizes time management techniques and academic integrity.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		
AMT	182	Private Pilot Ground School	Ground school preparation for Private Pilot Certificate. Aerodynamics, navigation, performance, and regulations.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
AMT	200	Flight Operations and Safety II	Supervised commercial instrument flight training, safety briefings, and recurrent aviation subjects as appropriate for commercial and instrument pilots. Requires continuous enrollment until completion of FAA Commercial Pilot Certificate with Instrument Rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	201	Air Traffic Control	Ground and air operations; weather services communications and routing; flight plans, IFR operations, departures and arrivals; and airport conditions and emergencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Aero Mngt Tech (Prof Flight) OR Aero Mgmt Tech (AWS Mgmt) OR Air Traffic Management student
AMT	214	Commercial/Instrument Ground School I	Ground school leading to FAA Instrument Pilot Rating/Commercial Pilot Certificate (part 1 of 2). 10 hours ground trainer included.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Aero Mngt Tech (Prof Flight) student; AMT182, AMT220 and AMT101 with C or better
AMT	220	Aviation Meteorology	Evaluation, analysis, and interpretation of atmospheric phenomena. Low- and high-altitude weather from the pilot's viewpoint.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	280	Aerospace Structures, Materials and Systems	Basic aerodynamics, incompressible/compressible airflow, wind tunnel testing, wing theory; analysis of aircraft structures; properties and applications of materials, and aircraft systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	4.		Prerequisite: Must have earned a D or better in PHY 111, and PHY 113
AMT	287	Aircraft Powerplants	Theory and performance analysis of gas turbine and reciprocating aircraft engines. Engine accessories, systems, and environmental control.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	4.		Prerequisite: Must have earned D or greater or currently enrolled in PHY 111 or PHY 121 OR Corequisite: PHY111 or PHY121
AMT	300	Flight Operations and Safety III	Supervised instructor flight training, safety briefings, and appropriate recurrent aviation subjects. Requires continuous enrollment until completion of FAA Flight Instructor Certificate with Instrument Instructor Rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	308	Air Transportation	Studies the historical and international development of air transportation and its social, political, and economic impact upon global interrelationships.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	Pre-requisite: Total earned hours must be greater than or equal to 50
AMT	322	Commercial/Instrument Ground School II	Ground school leading to FAA Instrument Pilot Rating/Commercial Pilot Certificate (part 2 of 2). 10 hours ground trainer included.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater or currently enrolled in AMT100, AMT182 and AMT214
AMT	350	Aircraft Design and Logistics Management	Fundamental aircraft design principles, including performance factors associated with mission profiles and the identification of basic logistical support requirements. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a C or greater in AMT280 and AMT287 or be currently enrolled OR Corequisites: AMT287
AMT	370	Air Freight Operations	Air freight operations in National Aviation System; ramp operations, loading, weight and balance, and administration of airside and groundside operations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	382	Air Navigation	Theory and application of modern advanced navigation and flight instrument systems. Introduces crew resource management in multiplace cockpits.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater in AMT200 or AMT322 or be currently enrolled
AMT	385	Flight Instructor Ground School	Ground school in preparation for the FAA Flight Instructor Certificate.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	387	Multiengine Pilot Ground School	Ground school preparation for the FAA Multiengine Rating.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Prerequisite: Must be a Technology Science BS student AND have a C or greater in AMT200 or be currently enrolled OR Corequisite: AMT200
AMT	391	Multiengine Instructor Ground School	Ground school preparation for the FAA Multiengine Flight Instructor Rating. Integrated lecture/lab.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	2.		Pre-requisite: Technology Science BS student
AMT	392	Flight Instructor Instrument Ground School	Ground school preparation for the FAA Instrument Flight Instructor Rating.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must be Technology Science BS student AND earned C or greater or currently enrolled in AMT 200 and AMT 385
AMT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AMT	396	Aviation Professional	Career focus for management and flight students, including internships, writing, interviews, and employment search in aviation industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Pre-requisite: Technology Science BS or BAS student; Minimum 50 hours
AMT	400	Flight Operations and Safety IV	Multiengine and crew training, safety briefings, and appropriate recurrent aviation subjects. Requires continuous enrollment until completion of multiengine rating. Flight instruction costs are not included in university tuition and fees. Fee.	N	LEL	N	Z1	College of Tech & Innovation	Department of Technology Management	1.		
AMT	401	Multiengine Instructor Rating	Normal and emergency flight operations. Instruction techniques and procedures for light multiengine land, airplane. CFIAME Rating required for course completion.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		
AMT	408	National Aviation Policy	Examines aviation and airspace policies and policy process, including agencies involved in formulation, implementation, and evaluation of aviation policy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must have a C or greater in AMT 308 or be currently enrolled
AMT	410	Aviation Safety and Human Factors	Aviation accident prevention, human factors, life support, fire prevention, accident investigation, and crash survivability. Development and analysis of aviation safety programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Total earned hours must be greater than or equal to 50
AMT	412	Air Transportation Research	Surveys practical research methodology in use in the air transportation industry. Topics include planning and design considerations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		
AMT	442	Aviation Law/Regulations	Aviation within context of U.S. Common Law system. Public law, administrative rule making, sovereignty, enforcement, and case law analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Total earned hours must be greater than or equal to 50
AMT	444	Airport Management and Planning	Orientation to administration and management of modern public airports, including overview of planning, funding, and development of airport facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Minimum Junior standing
AMT	482	Airline Instrument Procedures	Advanced instrument flight using airline instrument procedures and airline crew and cockpit resource management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND earned a C or greater in AMT200 or 322 or currently enrolled AND earned a C or greater in AMT 382 or be currently enrolled
AMT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
AMT	486	Regional Jet Aircraft Systems	Regional jet airline aircraft systems and flight procedures. Includes theoretical education for regional jet commercial passenger aircraft.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Must be Technology Science BS student AND earned a C or greater in AMT300 and AMT382 or be currently enrolled AND must have a C or greater in AMT 482 or be currently enrolled or Corequisite: AMT482
AMT	488	Regional Jet Aircraft Systems II	Regional jet systems, with emphasis on air navigation systems, including Flight Management System (FMS), Selective Calling (SELCAL), and flight profiles.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	489	Airline Administration	Administrative organizations, economics of airline administration, operational structure, and relationship with federal government agencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Academic level must equal Junior or greater AND must have a C or greater in AMT 308 or be currently enrolled
AMT	490	Regional Jet Operations Capstone	Regional jet aircraft operations and flight procedures. Includes theoretical education for RJ aircraft, FTD and full-motion simulator time.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must be Aero Mngt Tech (Prof Flight) student AND must have a C or greater in AMT400 and AMT482 or currently enrolled AND AMT300 or AMT486 or be currently enrolled
AMT	491	Aviation Management Capstone	Integrated group project with industry partner to address current problems in either air carrier or airport management focus area.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Academic Level greater than or equal to Senior
AMT	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-6	L	Pre-requisites: Must be an Honors student
AMT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Prerequisite: University Cumulative GPA is greater than or equal to 2.25
AMT	496	Airline Aircraft Systems Capstone	Commercial airline aircraft systems and flight procedures. Includes theoretical education for large, commercial passenger aircraft.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		
AMT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		
AMT	520	Airline Pricing and Yield Management	Airline economics at the operating level; historical and current operational strategies; demand, traffic, price, yield, revenues, and costs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	521	Air Transportation Regulation	Reviews evolutionary history of government regulations. Explores alternatives for economic, safety, social, and administrative regulatory reform in air transportation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	522	Aviation Law	Examines the U.S. legal system with a focus on the aviation perspective, administrative agencies, FAA enforcement, and case law.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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AMT	523	Intermodal Transportation Management	Systems theory applied to intermodal transportation networks. Surveys air and ground transportation infrastructure, institutional frameworks, and intermediaries promoting connections between modes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	524	Airport Management and Operations	Overview of planning, funding, and development of airport facilities; legal and ethical considerations associated with airport management operations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	525	Airport Planning and Design	Completion of various phases of airport master planning process. Provides guidance for logical and timely development of airports. Project work groups assigned.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Fulton School of Engineering with a University Cum GPA 3.0 or greater
AMT	526	Aviation Labor Relations	Investigates labor-management relations in the aviation industry, including laws, unionism, collective bargaining, public sector relationships, grievance procedures, and conflict.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	527	Airline Management Strategies	Since deregulation, airlines have undergone profound changes through mergers, consolidation, and acquisition. In-depth look at airline management strategies for the 21st century.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	528	International Aviation	Major issues of international aviation, historical review of institutional framework. Bilateral route agreements, freedom versus sovereignty, current legal and political arrangements.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	529	Fixed-Base Operations Management	Examines FBO role in the national aviation system. Organization of flight line operations, aircraft maintenance, and administration for multiple aircraft types.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	532	Managing Diversity in Aviation	Examines group identity and cognitive styles, cross-cultural issues, language and diversity, and effects of aviation culture on management of diversity.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	541	Aviation Physiology	Surveys human physiology and human performance principles related to modern aircraft and aircraft systems operating in multiple environments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	542	Human Factors in Automation	Examines human factors issues associated with automation. Includes impact of automation design, workload, stress, and system complexity on human operators.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	545	Human Factors in Aviation	Overview of human role in aviation. Issues, problems of unsafe acts and attitudes in human behavior. Human engineering capabilities and limitations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	546	Crew Resource Management/Line-Oriented Flight Training	Evaluates in-depth, multicrew coordination issues for commercial aviation pilots. Stresses importance of critical thinking, decision making, integrated resource utilization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	549	Applied Human Factors Research	Aviation human factors research principles applied and tested in operational settings. Group projects assigned in conjunction with industry partners.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Senior in Coll of Engr & Applied Science with a University Cum GPA 3.0 or greater
AMT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
AMT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AMT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
AMT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) OR Coll of Engr & Applied Science student
ANB	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
ANB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
ANB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	600	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ANB	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
ANB	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
ANB	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
ANB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
ANB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
ANP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ANP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	475	Computer Programming in Architecture	Computer programming for architectural problems and applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ANP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ANP	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
ANP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ANP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ANP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design (Energy Perform/Bldgs) MS, Building Design (Facilities Dev/Mgt) MS or Building Design (Knowledge/Compng) MS student
ANP	530	Computer Graphics in Architecture	Fundamentals of computer graphics programming in architecture, including graphics hardware, device-independent packages, 2- and 3-D transformations, and data structures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be MS Building Design Knowledge and Computing student
ANP	561	Architectural Information Processing Systems	Applies information processing systems to architectural problems. Analyzes computing tools with respect to assumptions and theories.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bld Design (Knowledge/Compng) MS student
ANP	563	Methods in Architectural Design Computation	Concepts and models for research in computer-aided architectural design with an emphasis on computational methods and a system framework.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be Bld Design (Knowledge/Compng) MS student
ANP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ANP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design (Knowledge/Compng) MS student
ANP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design (Knowledge/Compng) MS student
ANP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ANP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	DIS	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
ANP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ANP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Building Design Knowledge and Computing MS student; ANP 592 with a grade of Y
ANP	681	Project Development	Defines and elaborates on major ideas for implementation in ADE 622 in relation to contemporary theory and practice.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student
ANP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Building Design Knowledge and Computing MS student
APA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisite: Freshman status
APA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
APA	200	Introduction to Asian Pacific American Studies	Examines historical and contemporary issues facing Asian Americans and Pacific Islanders in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C	
APA	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	
APA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	310	Asian Pacific American Arts and Cultures	Explores Asian Pacific American cultural expression in art, literature, film, theatre, dance, and music.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
APA	315	Asian Pacific American Literature	Explores the literary history, critical reception, and major theories in Asian Pacific American poetry, fiction, and prose.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
APA	330	Asian Pacific American Genders and Sexualities	Explores gender and sexuality issues as they relate to Asian Pacific American experiences, including interracial relationships, stereotypes, feminism, queer theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
APA	340	Asian Pacific Americans and Media	Analyzes social construction of Asian Pacific American media images and resistance to those images in various historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
APA	345	Asian Pacific Americans and Film	Examines representations of Asian Pacific Americans in narrative, popular, experimental, and documentary film.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C & H	
APA	360	Asian Pacific American Experience	Historical and contemporary experiences of Asian Pacific American racial/ethnic groups in the United States.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(HU or SB) & C	
APA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	450	Asian Pacific American Contemporary Issues	Focus on issues shaping Asian Pacific American communities, including immigration, politics, education, health, family, gender, youth, interracial relations, and other contemporary topics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	
APA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
APA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
APA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
APA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
APA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
APH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
APH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	300	World Architecture I/Western Cultures	Historical and contemporary built environments of Western civilizations: Mediterranean, Europe, and the Americas as manifestations of cultural history and responses to environmental determinants.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2-3	HU & H & G	Pre-requisite: May not be Pre-Architectural Studies or Architectural Studies BSD student
APH	305	Contemporary Architecture	Europe and America from the foundations of the modern movement to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	Pre-requisites: Non-majors only (non-architecture students)
APH	313	History of Architecture I	Surveys the monuments, buildings, and cities of Europe and Africa from the earliest human settlements to the present day.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & G & H	Pre-requisite: Juniors and Seniors only
APH	314	History of Architecture II	Surveys the monuments, buildings, and cities of Asia and the Americas from the earliest human settlements to the present day.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & G & H	Pre-requisites: APH 313 with a C or better
APH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	411	History of Landscape Architecture	Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	
APH	414	History of the City	The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	(L or HU) & H	

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APH	421	First Concepts: What is... The Writing, Philosophy, and Culture of Architecture	Examines the major writings and concepts that surround the history of architecture. Focuses on (but not exclusively) work in the 20th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	L or HU	Pre-requisites: Architecture student; APH 313 and APH 314 with C or better
APH	441	Ancient Arch	Architecture of the ancient Mediterranean world with selective emphasis on major historical complexes and monumental sites.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
APH	446	20th-Century Architecture I	Architecture in Europe and America from the foundations of the modern movement to the culmination of the international style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
APH	447	20th-Century Architecture II	Developments in architecture since the international style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
APH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
APH	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
APH	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
APH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
APH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
APH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
APH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
APH	505	Foundation Theory Seminar	Foundation of conceptual architectural inquiry, stressing the reciprocal and interdependent relationship between design and theory.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student; Co-requisites: ADE 522; ATE 556
APH	509	Foundation Seminar	Historical, technical, theoretical, environmental, and professional issues in architecture.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture; Co-requisite: ADE 510
APH	511	Energy Environment Theory	Solar and other energy sources in designed and natural environments; architectural, urban, and regional implications of strategies using other renewable resources.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Master of Architecture, Master of Urban Design or Building Design MS student
APH	515	Current Issues and Topics	Critical examination of current architectural issues, topics, and discourse.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: APH 505 with a C or better; Co-requisite: ADE 621
APH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	581	Contemporary Urban Design	Explores contemporary city and urban design issues related to contemporary cities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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APH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APH	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
APL	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Applied Linguistics Ph.D. student
APL	588	Spanish Language Acquisition		N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
APL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Applied Linguistics Ph.D. student
APL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
APL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
APL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	601	Introduction to Applied Linguistics	Overview of the field of applied linguistics. Applies linguistic knowledge to the resolution of language-related issues facing multilingual societies (e.g., second language acquisition and ultimate attainment, literacy, language assessment, bilingualism, heritage and indigenous languages, language attitudes, language planning and policy, language and politics, world Englishes).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
APL	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		
APL	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
APL	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
APL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
APM	501	Differential Equations I	Linear and nonlinear ordinary differential equations. Existence and uniqueness of solutions, limit sets, stability, Lyapunov functions, linear systems with constant coefficients. Geometry of behavior in two and three dimensions, including Poincare-Bendixson theorem, Lorenz equations, linearization, sensitive dependence on initial conditions, bifurcations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	502	Differential Equations II	Partial differential equations, including classification, method of characteristics, separation of variables, boundary value and initial value problems, Green's functions, maximum principle, distributions, and weak solutions. Students must have already taken or be concurrently enrolled in Differential Equations 1.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	503	Applied Analysis	Convergence sequences and series of functions; metric space topology, compactness, completeness and the Ascoli-Arzelà Theorem; Contraction Mapping Principle, Implicit Function Theorem; intro to Lebesgue integration leading to L^p -spaces; properties of Hilbert spaces, Fourier transform. Students should have knowledge of linear algebra, multivariable calculus, and analysis at the undergraduate level.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	504	Applied Probability and Stochastic Processes	Markov chains, Martingales, probability measures, SDE, Brownian motion, Monte Carlo methods. Students should be an APM graduate student.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	505	Applied Linear Algebra	Fundamentals of linear algebra and numerical linear algebra, including decompositions (LU, QR, SVD), Eigen values, spectral theory, least squares problems. Programming with MATLAB. Students should be an APM graduate student.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	506	Computational Methods	Covers interpolation, solution of nonlinear equations and systems, numerical differentiation, numerical integration, numerical solution of ordinary and partial differential equations. Students should be an APM graduate student.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	520	Advanced Numerical Linear Algebra	Extends topics of APM 505. Introduces essential iterative methods, Gauss-Seidel, conjugate gradients. Methods for SVD, total least squares and root-finding applications in image analysis. Students should have basic knowledge of numerical linear algebra and a programming language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	521	Numerical Analysis for Ordinary Differential Equations	Stability, accuracy, consistency, RK methods, finite differences, linear partial differential equations, dispersion, dissipation, method of lines. Applications and programming. Students should have had a previous graduate course in ODE or applied analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	522	Numerical Methods for Partial Differential Equations	Numerical methods for parabolic, elliptic, and hyperbolic partial differential equations, including finite difference/volume, finite element, and spectral methods. Mathematical concepts of stability, consistency, and convergence. Applications to scientific, biomedical, and industrial problems. Students should have a basic knowledge of PDE's and a programming language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	523	Optimization	Linear programming, unconstrained nonlinear minimization, line search algorithms, conjugate gradients, quasi-Newton methods, constrained nonlinear optimization, gradient projection, and penalty methods. Completion of courses in Applied Linear Algebra and Computational Methods is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	524	Spectral Methods	Extends approximation theory to global methods, including Fourier and orthogonal polynomial expansions. Applications to imaging and hyperbolic, parabolic, and elliptic partial differential equations. Students should have previous graduate courses in ordinary and partial differential equations, basic programming skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	525	High-Performance Computing	Supercomputer architectures, parallel programming environments, languages, libraries, and algorithms for high-performance numerical simulations. Instructor/Department approval is required for this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	526	Advanced Numerical Methods for Partial Differential Equations	Partial content will vary from semester to semester, but may include hyperbolic conservation laws, finite element methods, multigrid methods, and parallel algorithms for partial differential equations. Applications to scientific, biomedical, and industrial problems. Students should have basic knowledge of PDE's and a programming language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	530	Mathematical Cell Physiology.	Mathematical modeling of dynamical aspects of cell physiology. Diffusion, membrane transport, intracellular calcium channel kinetics, calcium oscillations and waves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
APM	531	Mathematical Neuroscience I	Mathematical modeling of electrochemical processes in nerve cells. Dendritic modeling, dendritic spines and synaptic plasticity, bifurcation analysis of excitable membrane models, deterministic and stochastic methods for threshold dynamics and bursting, relaxation oscillations. Students should have had a previous graduate-level PDE course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	532	Mathematical Neuroscience II	Mathematical modeling of systems neuroscience. Network dynamics, coupled phase oscillators, central pattern generators, neural coding, learning and memory. Students should have taken ordinary differential equations or mathematical cell physiology or mathematical neuroscience prior to enrolling in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	533	Mathematical Population Biology I	Selectively covers population biology models in the forms of systems of difference equations or ordinary differential equations. Focuses on mathematical analysis of population models as well as model formulation and simulation. Students should have a previous graduate-level course in ODE.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	534	Mathematical Population Biology II	Selectively covers population biology models in the form of partial differential equations and systems. Focuses on mathematical analysis of population models as well as model formulation and simulation. Students should have a previous basic graduate-level course in ODE and PDE.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	535	Mathematical Models in Medicine	Mathematical models for the etiology, epidemiology, pathogenesis, morphology and treatment of disease. Covers dynamical models of cancer and viral infections.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	541	Stochastic Modeling in Biology	Markov processes, random walks, martingales, branching processes, logistic growth model, Wright-Fisher model, Kingman's coalescent, bound and site percolations, contact processes, voter models. Students should have previously taken course work in probability and/or stochastic processes (or have a recommendation from their advisor). Recommendation from advisor is typically for students in biology or physics that have not taken statistics courses but have a good background in mathematics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	553	Dynamical Systems	Center manifolds, structural stability, normal forms, averaging, chaos, control and synchronization. Students should have a previous graduate course in ODE or applied analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	560	Applied Dynamical Systems	Bifurcations, normal forms, pattern formations, mixing, Lagrangian chaos, and applications to fluid dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	561	Nonlinear Analysis of PDEs in Fluids	Sobolev spaces; incompressible Euler and Navier-Stokes equations; weak and strong solutions; attractors and the connection with turbulence; geophysical applications. Completion of a course in Differential Equations II is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	570	Applied Linear Operators	Bounded linear and compact operators on Hilbert spaces. Linear integral equations, Fredholm and Hilbert-Schmidt theory, and approximate methods. Distributions. Completion of a course in Applied Analysis is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	575	Perturbation Methods in Applied Mathematics	Regular and singular perturbation methods for ordinary and partial differential equations, Boundary layer theory, matched asymptotic expansions, multiple-scale, homogenization, and WKB methods. Application to nonlinear oscillations, bifurcation and stability problems. Completion of a course in Differential Equations II or Partial Differential Equations in Engineering is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: APM 502 or MAE 502; Credit is allowed for only APM 575 or MAE 505
APM	576	Theory of Partial Differential Equations	Existence and uniqueness theorems, boundary value and initial value problems, characteristics, Green's functions, maximum principle, distributions, and weak solutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	577	Theory of Partial Differential Equations	Continuation of APM 576. Completion of a course in the Theory of Partial Differential Equations is strongly recommended prior to enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	581	Geometry and Control of Dynamical Systems I	Manifolds, tangent and cotangent bundle, Lie theory, integrability and controllability, and feedback control. Students should have previously taken coursework in differential equations, applied analysis, applied probability, and stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
APM	582	Geometry and Control of Dynamical Systems II	Variational principles, Euler-Lagrange equations, Hamiltonian systems, optimal control, connections and curvature. Students should have previously taken coursework in differential equations, applied analysis, applied probability, and stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
APM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
APM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
APM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OP4	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
APM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
APM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
APM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
APM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
AR	461	Adv Ceramics I		Y	LEC	Y	CNV	Herberger College of the Arts	School of Art	3.		
ARA	110	Sculpture Safety	Introduces safety and environmental health in the sculpture studios. Pre- or corequisite for all sculpture classes.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Art	1.		
ARA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	195	Art in My World	Basic concepts and fundamental questions that provide insights into art making and that affect one's understanding and appreciation of art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARA	202	Understanding Photographs	Slide lecture course in understanding photography as a fine art form.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	311	Art Appreciation and Human Development	Foundations of art for children and young adults. Emphasizes learning, development, and understanding art in historical and cultural contexts. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: Non-ART student; ENG 101; ENG 102; Minimum Junior standing
ARA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	460	Gallery Exhibitions	Practical experience in all phases of department gallery operations and preparation of gallery publications.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARA	488	Understanding Art	Understanding art as an emergent cultural phenomenon with an emphasis on a critical examination of conceptual issues in art. Writing required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L or HU	Pre-requisites: ARS 101; ARS 102
ARA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		
ARA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARA	460	Gallery Exhibitions	Practical experience in all phases of department gallery operations and preparation of gallery publications.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
ARA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ARA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARB	101	Elementary Arabic I	Reading, writing, speaking, and understanding basic Arabic. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ARB	102	Elementary Arabic II	Reading, writing, speaking, and understanding basic Arabic. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ARB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Maximum 24 earned hours
ARB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	201	Intermediate Arabic I	Review of Arabic grammar with emphasis on the development of the skills of listening comprehension, reading, speaking, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ARB	202	Intermediate Arabic II	Review of Arabic grammar with emphasis on the development of the skills of listening comprehension, reading, speaking, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ARB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	311	Advanced Arabic Skills I	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	321	Arabic Conversation I	Emphasizes spoken Arabic and conversation skills. Simultaneously develops communicative skills, vocabulary, and cultural awareness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	331	Arabic/Islamic Culture and Literature	General introduction to the Middle East that synthesizes cultural, social, and literary information. Focuses on the experiences of ordinary Middle Eastern people to convey a grassroots sense of the Middle East.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	335	Arabic Culture and Islam	Develops awareness of Arabic culture and Islam. Covers a variety of cultural topics, including family, status of women, food, music, and Islam.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARB	341	Quran Text and Women	Addresses Muslim women scholars' argument that it is not the religion but the patriarchal interpretation of the Quran that have kept Muslim women oppressed.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	351	Classical Arabic Literature	Provides a survey in classical Arabic literature. Focuses on the development of classical Arabic poetry and prose since their interceptions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	411	Advanced Arabic Skills II	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	421	Arabic Conversation II	Focuses on developing all four skills of the Arabic language acquisition: reading, writing, listening, and speaking. Aims to help students acquire an advanced proficiency in Arabic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ARB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ARB	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
ARB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
ARB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ARB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ARB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ARE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARE	250	Teaching Inquiry in Art	Using inquiry to investigate artwork and to teach others to make and understand art. Introduces viewpoints for art understanding.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ARS 101, ARS 102, and 6 hours (2 classes) from ART 111, 112, 113 or 115 with a C or better or currently enrolled
ARE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	301	Studio Art and Human Development	Study of human development in studio art from early childhood to adult years.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARE	370	Teaching Visual Culture	Explores issues and applications of everyday aesthetics that contain powerful technological, social, and economic factors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ARE 250 with C or better
ARE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	440	Disciplines of Art Education	Explorations in art education's disciplines, history, and people's artmaking development at diverse age levels and abilities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Must be an Art student. Completed ARE 250 with a B- or better
ARE	482	Teaching Art Processes	Art traditions of the 20th century as a basis for studio and art history instruction. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Fine Arts Art student
ARE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	486	Art Education: Strategies and Applications	Implementation and evaluation of art instruction for K-12 population. Includes teaching of Saturday classes in the Children's Art Workshop. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ARE 482 with C or better
ARE	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ARE	493	Honors Thesis		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Pre-requisites: Must be an Honors student
ARE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	496	Methods and Assessment of Learning in Art	Individual or group research on the assessment of art learning incorporating theory and practice. Meets art postbaccalaureate certification requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ARE 250 with B- or better
ARE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisites: Minimum 90 hours
ARE	510	Visual Culture Research	Research on instruction of everyday aesthetics and related issues that contain powerful technological, social, and economic factors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	520	Issues in Teaching Inquiry in Art	Issues in teaching and learning through inquiry about artworks using print and electronic reproductions and information.	N	DIS	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	525	Research on Art Instruction	Research methods and assessment of learning in art. Pilot studies on the effects of instruction on learning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	530	Issues in Teaching Studio Art	Critical examination of issues concerning teaching multicultural art to different populations of students. Historical and philosophical foundations reviewed. Recommended to be taken before ARE 535.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	535	Research on Teaching Studio Art	Review of empirical and historical research methods, learning theory, and assessment of learning in studio art, including developmental studies and their limitations. Pilot studies on the effects of instruction upon learning. Recommended to be taken after ARE 530.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	540	Teaching Art in Cultural Contexts	Relationship of multicultural perspectives to teaching/learning art criticism, aesthetics, studio art, and art history.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Art	1-12		
ARE	610	Issues and Trends in Art Education	Doctoral-level investigation of historical and contemporary issues related to teaching and research in art education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	611	Curriculum Development in Art Education	Doctoral-level inquiry into the philosophical, psychological, and sociological foundations of curriculum development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Art	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ARP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ARP	451	Architecture Field Studies	Organized field study of architecture in specified national and international locations. Credit/no credit. May be repeated for credit with director approval.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
ARP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: ADE 322 with a C or better; Co-requisite: ADE 421; ATE 451
ARP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ARP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ARP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ARP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	SEM	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Master of Architecture student; ADE 522 with a C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ARP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Master of Architecture student
ARS	100	Introduction to Art	Understanding of art and its relationship to everyday life through painting, sculpture, architecture, and design. No credit for Art majors or non-Art majors who have completed ARS 101 or 102 or 300.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: Students who have credit for ARS 101, 102, or ARS 300 may not enroll in ARS 100
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	
ARS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ARS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	201	Art of Asia	History of the art of the Asian cultures, with emphasis on China, Japan, and India. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	202	Art of Africa, Oceania, and the Americas	History of art of Africa, Oceania, and the New World. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	
ARS	250	History of Photography	History of photography from the 19th century to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	300	Introduction to Art	Course content same as ARS 100 but requires a higher level of accomplishment and comprehension. No credit for Art majors or non-Art majors who have completed ARS 100. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: Students who have credit for ARS 100 may not enroll in ARS 300
ARS	302	Art/ Africa,Oceania & Americas	Issues in the art of Africa, Oceania, and the Americas related to ritual, gender, transformation of tradition, and encounters with Europeans.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H & G	Pre-requisite: ENG 102, 105, or 108
ARS	310	The Renaissance in Tuscany	Course taught in Florence, Italy. History of arts in Tuscany with focus on city of Florence from 14th through 16th centuries. Completion of ARS 101 and 102 suggested.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	340	Art in America	American art from colonial times through the Second World War. Not available to students who have completed ARS 542.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	362	Pre-Columbian Art I	Architecture, sculpture, ceramics, painting, and other arts of Mesoamerica before European contact. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	365	Native North American Art	Native American art forms of the United States and Canada from prehistoric times to the present. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARS	400	History of Printmaking	History of the print as an art form and its relation to other modes and forms of artistic expression.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	402	Art of Ancient Egypt	Aesthetic, philosophical, and cultural basis of Egyptian art from pre-Dynastic period through New Kingdom. Emphasis on sculpture and architectural monuments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	404	Greek Art	History of art, architecture of Aegean civilizations (Cycladic, Minoan, Mycenaean) and of Greece to end of Hellenistic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	406	Roman Art	Art and architecture of Etruria, the Roman Republic, and the Roman Empire.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	410	Early Christian and Byzantine Art	Art and architecture of the early church and the Byzantine Empire from the 4th to the 15th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	412	Early Medieval Art	Painting, sculpture, architecture, and the minor arts from Migration, Carolingian, and Ottonian periods considered within religious, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	414	Romanesque Art	Sculpture, painting, architecture, and minor arts in western Europe, ca. 1030-1200, considered within religious, economic, and social contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better; Students who have credit for ARS 514, may not enroll in ARS 414
ARS	416	Gothic Art	Painting, sculpture, and architecture in western Europe during the Gothic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	417	Late Gothic Art in Central Europe	Sculpture, painting, and architecture of the late-Gothic style, ca. 1350-1525, considered within religious, social, economic, and political contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ARS 101; ARS 102; Credit is allowed for only ARS 417 or 517
ARS	418	German Renaissance and Reformation Art	Graphics, painting, sculpture, and architecture, ca. 1450-1550. Reformation themes and Renaissance style considered within religious, political, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	422	Italian High Renaissance Art and Mannerism	History of Italian art during the 16th century, including the achievements and influence of Leonardo da Vinci, Raphael, and Michelangelo.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	424	Italian Baroque Art	Italian painting, sculpture, and architecture of the 17th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102
ARS	426	Art of the 17th Century in Northern Europe	Baroque painting, sculpture, and architecture in Flanders, the Netherlands, France, and England.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	428	Art of the 18th Century	History of painting, sculpture, architecture, graphic arts, and the decorative arts from 1700 to the French Revolution (1789).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102; Credit is allowed for only ARS 428 or 528
ARS	430	Art of Spain and its Colonies	Architecture, painting, and sculpture from 1500 to 1800. Colonial focus on central Mexico and the American Southwest.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102; Credit is allowed for only ARS 430 or 530
ARS	432	19th-Century French Art and Culture	History of painting, graphic arts, sculpture, and architecture, 1800 to 1900 in France in its political, social, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	434	Art and Visual Culture of 19th Century	History of European art (all media) from French Revolution to Paris World Fair of 1900.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better. Students who have credit for ARS 534, may not enroll in ARS 434
ARS	435	The Pre-Raphaelites	Visual and literary works by Victorian Pre-Raphaelites as works in themselves and through relations between images and texts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre- or Co-requisites:ARS 102, ENG 221, or HST 202 (with D or better if completed)
ARS	436	The Artist, War, and Revolution (Versailles to Vietnam)	Critical study of artistic responses to war and revolution in Europe and United States from French Revolution to Vietnam conflict.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	437	British Culture and Empire	Examines British imperial culture in art and literature, 1870-1914, and postcolonial theory.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:A grade of B or better in one course in ARS, ENG, or HST at 200 level or higher
ARS	438	Art of the 20th Century I	Developments and directions in art between 1900 and World War II.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101 and ARS 102 with D or better or currently enrolled
ARS	439	Art of the 20th Century II	Art since World War II, with consideration of new concepts and experimentation with media and modes of presentation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 102 with a grade of B or better
ARS	442	Critical Issues in American Painting	Explores issues of national identity and western expansion, Manifest Destiny, through images of race and violence in western American painting from 1800 to the early 20th century. Includes "claiming and settling the wilderness," cultures in conflict, the cowboy, and visions of an enchanted land.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	
ARS	451	20th Century Photography	Personalities, processes, images, and ideas in photography from 1914 to present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ARS	458	Critical Theories in the Visual Arts	Examines current critical theories through their application to all visual arts. May include new historicism, Marxism, deconstruction, post-structuralism, semiotics, Lacanian psychoanalysis, feminism, postmodernism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	459	Writing Art Criticism	Traditional and contemporary approaches to the criticism of art. Students write critical essays. Latter half of the semester stresses the criticism of contemporary art in various media.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ARS 458
ARS	460	Art Now	Critical overview of major issues and controversies of the last 10 years within the global, national, and local art scene.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ARS 439
ARS	466	Native American Art of the Southwest	American Indian art in the southwestern states from its origins to the present day. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	
ARS	468	Art of the Arctic and Northwest Coast	Art associated with ceremony, shamanism, and daily life in the Arctic and on the Northwest Coast. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & C & H	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	469	Mexican Art	Art of Mexico and related Central American cultures from the prehistoric to the contemporary schools. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU & H	Pre-requisites: ARS 101; ARS 102

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARS	472	Art of China	Study of major forms in Chinese art: ritual bronze, sculpture, ceramic, calligraphy, painting, and architecture. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102
ARS	473	Art of Japan	Japanese art from the Joman period to the present. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better
ARS	475	Chinese Painting	From Ku K'ai-chin to Ch'i Pai-shih. Major artists, styles, and movements in Chinese painting. Meets non-Western art history requirement.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	HU	Pre-requisites: ARS 101; ARS 102; Credit is allowed for only ARS 475 or 575
ARS	480	Research Methods	Methodology and resource material for art historical research. Techniques of scholarly and critical writing and evaluation of bibliographic sources.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L	Pre-requisites: Museum Studies or Art History student; Junior standing; ARS 101 and ARS 102 with B- or better
ARS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	485	Women in the Visual Arts	Historical study of art by women in various media; related social, political, educational issues; representation of women in art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.	L	Pre-requisites:ARS 101, & ARS 102 with a grade of D or better. Students who have credit for ARS 585, may not enroll in ARS 485
ARS	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ARS	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Pre-requisites: Must be an Honors student
ARS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ARS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ARS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisite: Minimum 90 hours
ARS	501	Methodologies and Art History	History of the discipline and an exploration of various methodologies, critical theory, and bibliographies used by art historians.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	502	Critical Studies in Egyptian Art	Egyptian art from pre-Dynastic to New Kingdom periods. Focus on aesthetic, philosophical, and cultural contexts. Research paper and readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	504	Critical Approaches to Greek Art	Art and architecture of Aegean civilizations (Cycladic, Minoan, Mycenaean) and of Greece to end of Hellenistic period. Research paper and readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:Must be a Graduate Student
ARS	506	Critical Studies in Roman Art	Art and architecture of Etruria, the Roman Republic, and the Roman Empire. Research paper and/or supplemental readings required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	514	Critical Approaches to Romanesque Art	Sculpture, painting, architecture, and the minor arts in western Europe, ca. 1030-1200, considered within religious, economic, and social contexts. Requires research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or Post Bacc Undergraduate or a Graduate Student; Students who have credit for ARS 414, may not enroll in ARS 514
ARS	516	Critical Approaches to Gothic Art	Architecture, sculpture, painting, and the minor arts in western Europe, ca. 1150-1350, considered within religious, social, and economic contexts. Requires research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	517	Critical Approaches to Late Gothic Art	Art of the late-Gothic style, ca. 1350-1525, considered within religious, social, economic, and political contexts. Requires research or reading project.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours; Credit is allowed for only ARS 417 or 517
ARS	522	Sixteenth-Century Italian Art	Critical study of painting, sculpture, and architecture in 16th-century Italy in its religious and historical context.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	528	Eighteenth-Century Art in Europe	Critical study of European art from the late Baroque to the early years of Neoclassicism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours; Credit is allowed for only ARS 428 or 528
ARS	530	Art of Spain and New Spain	Critical study of architecture, painting, and sculpture from 1500 to 1800.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours; Credit is allowed for only ARS 430 or 530
ARS	532	Art, Politics, and Patronage, 1770-1850	Critical analyses of political events in Europe. Examines issues of patronage, art as propaganda. Impact of war and revolution on visual arts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	534	Studies in Modern European Art, 1850-1914	Critical study of visual arts using primary source material from mid-19th century to WWI within philosophical, socioeconomic, and economic contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours must be greater than or equal to 108; Must be a Senior or a Post Bacc Undergraduate or be a Graduate Student. Students who have credit for ARS 434, may not enroll in ARS 534
ARS	542	Critical Issues in American Painting	Explores themes and social issues in American art with a critical study of American painting from the 18th century to 1850.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	562	Art of Ancient Mesoamerica	Critical study of art and architecture of Mexico and Maya areas before Spanish contact.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	565	Native Art of North America	Critical examination of Native American art within culture, prehistory to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARS	574	Studies in Japanese Art	Critical examination of the nature and history of Japanese art, its rich heritage and its indebtedness to foreign sources.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Total Earned Hours Must Be Greater Than or Equal to 108; Must be a Senior or a Post Bacc Undergraduate OR be a Graduate Student
ARS	575	Approaches to Chinese Painting	Critical history of Chinese painting from Eastern Chou to 1911. Emphasis on masters, regional developments, and conceptual underpinnings.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours; Credit is allowed for only ARS 475 or 575
ARS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	585	Women in the Visual Arts	Historical study of art by women in various media; related social, political, educational issues; representation of women in art.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Students who have credit for ARS 485, may not enroll in ARS 585
ARS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ARS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Art	1-12		
ARS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ARS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		
ARS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ARS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Art	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ARS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		
ARS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Art	1-15		
ARS	101	Art from Prehistory Through Middle Ages	History of Western art from the Paleolithic period through the Middle Ages.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	102	Art from Renaissance to Present	History of Western art from the Renaissance to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARS	438-W	Art of the 20th Century I	Developments and directions in art between 1900 and World War II.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
ARS	439	Art of the 20th Century II	Art since World War II, with consideration of new concepts and experimentation with media and modes of presentation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
ARS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ARS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
ARS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ARS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ARS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	453	Experimental Printmaking	Alternative techniques and methods to traditional approaches to printmaking. May be repeated for credit. Fee.	N	STO	Y	OPT	Herberger College of the Arts	School of Art	3.		
ART	111	Drawing I	Fundamental, technical, and perceptual skills using common drawing media and their application to pictorial organization. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	112	2-D Design	Fundamentals of pictorial design. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	113	Color	Principles of color theory as related to the visual arts. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art Undergraduate student
ART	115	3-D Design	Fundamentals of 3-D form. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art Undergraduate student
ART	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ART	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		
ART	201	Photography I	Development of skills and techniques of black and white photography. Emphasis on camera work and darkroom procedures. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Co-requisite: ART 202
ART	202	Photography I Lab	Fee.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Art	0.		Co-requisite: ART 201
ART	204	Photography II	Photography as an art medium with additional exploration into personal photographic aesthetics. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Art Undergraduate student; ART 101 or ART 201 with C or better
ART	211	Drawing II	Continued development of technical and perceptual skills. Emphasizes materials and pictorial content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 112 with C or better
ART	214	Life Drawing I	Development of skill and expressiveness in drawing the basic form, construction, and gesture from the human figure. Lab. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 112 with C or better
ART	223	Painting I	Fundamental concepts and materials of traditional and experimental painting media. Emphasizes preparation of painting supports, composition, and color. Lab. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 113 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ART	227	Watercolor I	Fundamental concepts, materials, and techniques of watercolor. Emphasizes problem solving, basic skills, composition, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 111 and ART 113 with C or better
ART	231	Sculpture I	Explores sculptural forms through concepts related to basic materials. Focus on studio production, safety, aesthetic criticism, and history of sculpture. 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; ART 111 and ART 115 with C or better; Pre- or Corequisite: ARA 110 (with C or better if completed)
ART	253	Introduction to Printmaking	Introduces basic monotype, intaglio, relief, and related techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 113 with C or better
ART	261	Ceramic Survey	Handforming methods, throwing on the wheel, decorative processes, and glaze application. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; ART 112 and ART 115 with C or better
ART	272	Metalworking I: Introduction	Emphasizes metal fabrication. Basic techniques of cutting, piercing, forging, soldering, and forming. Not open to seniors. 6 hours a week. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; Maximum Junior standing; ART 112 and ART 115 with C or better
ART	274	Wood I	Fundamental woodworking techniques to produce creative functional 3-D objects. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	276	Fibers I	Explores traditional and contemporary materials and basic techniques related to fibers. Embroidery, feltmaking, dyeing, block printing, plaiting, 3-D structures. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art undergraduate student; Maximum Junior standing; ART 112 and ART 115 with C or better
ART	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Art undergraduate student
ART	304	Advanced Photography	Interpretation and manipulation of light as a tool in the performance of expressive photography. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; Completed portfolio milestone (if required); ART 204 and (ART 101 or ART 201) with C or better
ART	305	Color Photography I	Applies color transparencies and prints to photographic art. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art students; Must have completed the portfolio milestone (if required); ART 204 and ART 101 or ART 201 with a C or better
ART	308	Digital Photographic Images I	Scanning, manipulation, refinement, and compositing of photographic images on the computer. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; Completed portfolio milestone (if required); ART 204 and (ART 101 or ART 201) with C or better
ART	311	Drawing III	Emphasizes composition, exploration of drawing media. 6 hours a week. Requires acceptance into the appropriate professional program or instructor approval. Contact your academic advisor in the School of Art for more information.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 211 with C or better
ART	314	Life Drawing II	Drawing from the model with greater reference to structural, graphic, and compositional concerns. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student or completion of portfolio milestone; ART 214 with C or better
ART	323	Painting II	Development of competency in skills and expression. Assigned problems involve light, space, color, form, and content. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student with portfolio; ART 223 with C or better
ART	325	Figure Painting	The human figure clothed and nude as the subject for painting in selected media.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART 314 and ART 323 with a grade of D or better
ART	327	Watercolor II	Explorations of personal expression in watercolor. Continued development of watercolor skills using traditional and experimental materials and techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 227 with C or better
ART	331	Sculpture II	Continuation of ART 231 with an emphasis on metal fabrication as an expressive sculptural process. Techniques in welding, cutting and bending of metals and their aesthetics. 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student with portfolio completed; Pre- or Co-requisite: ARA 110 (with C or better if completed)
ART	332	Sculpture III	Explores diverse media with a focus on mold-making processes. Development of the sculpture portfolio. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART231 AND ART331 AND be an ART student
ART	333	Foundry Casting Methods	Fine art and techniques of metal casting: mold making, foundry safety, finishing techniques, application of patinas, and history of casting. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART231, ART331 and ART332 or be currently enrolled in ART332 and must be an Art student
ART	345	Visualization and Prototyping I	Studio/seminar introduces concepts of computer visualization, modeling, and rapid prototyping in an interdisciplinary manner.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Digital Art OR Intermedia student
ART	346	3-D Computer Imaging and Animation	3-D modeling and animation. Emphasizes concepts and fine arts applications. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.	CS	Prerequisites: Must be an ART student
ART	348	Animation Motion Studies	Principles and applications of 3-D animation for fine arts. Emphasizes animation techniques for expressive effects. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART346 or be currently enrolled in ART346 AND be an ART student
ART	351	Intaglio I	Introduces concepts and techniques of intaglio processes, including non-acid and acid techniques such as drypoint, line etch, aquatint, photo etching; introduces multiple plate printing ala poupee wiping, chine colle, and basic color. Idea-generating exercises include visual signifiers of identity, democratic multiple, time and space, the disembodied gaze, and reconsidering beauty. Studio 6 hours a week. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): ART 253 with C or better
ART	352	Lithography I	Monochromatic and color planographic printmaking utilizing stone and aluminum plate processes. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 with C or better
ART	354	Screen Printing I	Introduces paper, direct, and photographic stencil techniques. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must have a C or greater in ART253 AND be an ART student
ART	355	Printmaking as Photography	Introduces photographic principles and skills for photomechanical printmaking processes, including photosilkscreen, photolitho, and photoetching. 6 hours a week. Fee.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 with C or better
ART	360	Ceramic Throwing	Design analysis and production of functional pottery. Emphasis on throwing techniques, surface enrichment, and glaze application. 6 hours a week. May be repeated once for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 261 with C or better
ART	363	Ceramic Clay-Glaze		N	LEC	N	CNV	Herberger Inst Design & Arts	School of Art	3.		

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ART	364	Ceramic Handbuilding I	Search for form using handbuilding techniques. Kiln firing and related problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 with C or better
ART	365	Ceramic Handbuilding II	Continuation of ART 364 with an additional focus on large-scale works, surface treatments, and glaze decoration with related kiln firing applications. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 and ART 364 with C or better
ART	372	Metalworking II	Metal fabrication techniques including surface embellishment. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 with C or better
ART	373	Metalworking III	Compression, die, and stretch forming as applied to hollow form construction. Hot and cold forging techniques as applied to smithing. 6 hours a week. fee	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 with C or better
ART	374	Wood II	Individual and directed problems in wood related to the production of unique functional art objects. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 274 with C or better
ART	376	Woven Structures I	Explores weaver- and loom-controlled structures with an emphasis on formal issues, historic precedence, and contemporary investigations. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 276 with C or better
ART	377	Surface Design	Application of dyes and pigments on cloth exploring techniques, formal issues, and content. Cyanotype, monoprinting, painting on silk, resists, stenciling. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 276 with C or better
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Prerequisites: Must be an ART student
ART	401	Nonsilver Photography	Recognition of the inherent characteristics of nonsilver processes and their use in communicating ideas. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:ART 304 with a grade of D or better
ART	403	Senior Photographic Projects	Technical and philosophical refinement of personal aesthetic with various photographic media. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 204 and (ART 101 or ART 201) with C or better
ART	404	Portraiture Photography	Photographing people. Critical discussions and slide lectures on issues in portraiture. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 204 and (ART 101 or ART 201) with C or better
ART	406	Photo Techniques	Camera and darkroom techniques with emphasis on creative control of the black and white print. 6 hours a week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student and you must have a C or greater in ART204 AND ART101 or ART201
ART	407	View Camera	View camera and darkroom techniques. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student and you must have a C or greater in ART204 AND ART101 or ART201
ART	408	Digital Photographic Images II	Develops personal aesthetic in digital photography. May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites:ART 308 with a grade of D or better
ART	409	Photographic Exhibition	Care of photographic prints, print presentation, and exhibition. Practical experience in gallery operations. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	410	Landscape Photography	Photographing landscapes. Critical discussion and presentations on issues in landscape photography. May be repeated for credit. 6 hours a week.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	411	Drawing IV	Visual and intellectual concepts through problem solving and independent study. Emphasis on the individual creative statement. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 211 and ART 311 with C or better
ART	414	Life Drawing III	Various media and techniques on an advanced level. The human figure as an expressive vehicle in various contexts. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: ART 314
ART	415	Art Anatomy	Study of human anatomical structures as applied to the practice of figure-oriented art. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	4.		Prerequisites: Art student; ART 214 with C or better
ART	423	Painting III	May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 223 and ART 323 with C or better
ART	425	Advanced Figure Painting	The human figure clothed and nude as the subject for painting in selected media. May be repeated for credit. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 223, ART 323 and ART 314 with C or better
ART	427	Advanced Watermedia	Continuation of ART 327. Advanced techniques, concepts, and methods with watercolor and other water-based media on paper. 6 hours a week. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	431	Special Problems in Sculpture	Development of a personal approach to sculpture. Emphasis on form, individual problems, and related color technology. Professional practices and presentation. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231, ART 331 and 332 with C or better
ART	432	Neon Sculpture	Techniques for creating neon in an art context. Glass tube bending and fabrication. Construction of artworks utilizing light-generating gasses. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	435	Foundry Research Methods	Research in foundry techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	436	Architectural Sculpture	Sculptural concepts as related to architecture and other man-made environments. Scale drawing, models, and relief sculpture. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231, ART 331 and ART 332 with C or better
ART	437	Film Animation	Production of short 16mm films that feature articulated sculptural objects, models, dolls, puppets, and graphics through the use of single-frame filming techniques. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	438	Experimental Systems in Sculpture	Simple electrical and mechanical systems that can be utilized in the context of studio art and installations. Requires active production of studio artworks. 6 hours a week. May be repeated for credit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 231 with C or better
ART	439	Intermedia Studio	Exploring visual effects by combining traditional and nontraditional methods, techniques, and concepts. 6 hours a week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must be an ART student

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ART	440	New Media Concepts	Continued experiments with new media and interdisciplinary concerns in art. 6 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Corequisite(s): ART 441
ART	441	Video Art	Utilizing video and audio equipment essential to the production of broadcast quality video art. 2 hours a week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1.		Pre-requisite: Art portfolio completed; Co-requisite ART 440
ART	442	Folk/Outsider Art	Explores ideas, attitudes, and art of contemporary self-taught, visionary, and outsider artists. Research and studio practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Must be an ART student
ART	443	Intermedia Performance	Experimental, conceptual, and interdisciplinary studio art with emphasis on performance and new media practices. May be repeated once for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisite: Art student
ART	449	Computer Animation and Video	Integrates 3-D fine arts animation with video and compositing. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 346 and ART 348 with C or better
ART	450	Computer Animation and Audio	Integrates audio with 3-D animation for fine arts applications. Includes compositing and effects. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 346, ART 348 and ART 449 with C or better
ART	451	Advanced Intaglio	Gives students the opportunity to further develop their skills with intaglio printmaking techniques. Primary areas of research include image development, multiple plate and color printing. Additional techniques include lift grounds, spit bite aquatint, white ground, and viscosity printing. Develops sharper critical responses, both aesthetically and conceptually, to their own work, as well as the work of other artists. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART 351 with C or better or currently enrolled
ART	452	Advanced Lithography	Continuation of ART 352. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student or Completed the portfolio milestone; ART 253 and ART 352 with C or better
ART	454	Advanced Screen Printing	Continuation of ART 354. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 and ART 354 with C or better
ART	455	Advanced Photo Processes for Printmaking	Continued study of photomechanical techniques and applications to printmaking or photographic processes. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student or Completed the portfolio milestone; ART 253 and ART 355 with C or better
ART	456	Fine Printing and Bookmaking I	Letterpress printing and typography as fine art. Study of history, alphabets, mechanics of hand typesetting, presswork, and various forms of printed matter. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART253
ART	457	Fine Printing and Bookmaking II	Continuation of ART 456. Bookbinding, book design and printing, advanced typography, theory, and presswork. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 253 and ART 456 with C or better
ART	458	Papermaking	History, theory, demonstrations, sheet forming, collage treatments, and 3-D approaches. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: You must be an ART student AND you must have a C or greater in ART253
ART	459	Monoprinting	Nonmultiple printed image using a variety of technical approaches. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: ART student or Completed the portfolio milestone; ART 253 with C or better
ART	460	Ceramic Clay	Research into various clay body formulations, local natural materials, slip glazes, and engobes. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Art student AND you must have a C or greater in ART261 AND ART360 AND ART364(or be currently enrolled in ART360 & ART364) AND
ART	463	Ceramic Glaze	Glaze calculation and formulation using various glaze colors and surfaces. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 261 and ART460 with C or better
ART	466	Special Problems in Ceramics	Emphasis on personal expression within structure of seminars, critiques, and studio work. Professional methods of presentation/documentation of work. 6 hours a week. May be repeated for credit. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisite(s): Art student; ART 261 and ART 364 with C or better
ART	470	Computer Animation Portfolio	Production of videotape and CD 3-D animation portfolios for fine arts and industry integrating animation, video, and audio. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.	CS	Prerequisites: You must be an ART student AND you must have a C or greater in ART346 AND ART348 AND ART449(or be currently enrolled in ART348& ART449) AND
ART	472	Metalworking IV	Forging, forming, and surface metalworking techniques with a focus on personal statements and craftsmanship. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 and ART 372 with C or better
ART	473	Metalworking: Special Problems	Special problems in metalworking related to techniques and individual directions. 6 hours a week. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 272 and ART 373 with C or better
ART	474	Advanced Wood	Extended experience and advanced techniques in the use of wood to create functional works of art. 6 hours a week. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 274 and ART 374 with C or better
ART	476	Woven Structures II	Emphasizes personal expressions and continues technical exploration in woven structures. May be repeated for credit. 6 hours a week. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 276 and ART 376 with C or better
ART	477	Printed Textiles	Techniques for screen printing on fabric exploring pattern as a compositional element. Various stencil methods including photographic processes. May be repeated for credit. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student; ART 276 and ART 377 with C or better
ART	478	Advanced Surface Design	Emphasis on personal expression with advanced problems in stitch resist, arashi shibori, transfers, indigo, vat and disperse dyes, and pigments. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Art student with portfolio completed; ART 276, ART 377 and ART 477 with C or better
ART	479	3-D Fibers	Explores traditional and nontraditional 3-D fiber techniques and media. Discussion, research, and critiques augment technical demonstrations. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisite: Art student
ART	492	Honors Directed Study		N	STO	N	Z1	Herberger Inst Design & Arts	School of Art	1-6		
ART	493	Honors Thesis		N	STO	N	Z1	Herberger Inst Design & Arts	School of Art	1-6	L	Prerequisites: You must be an Honors student
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		

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ART	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-7		
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-3		Pre-requisite: Art student
ART	530	Digital Compositing	Fine arts digital compositing of computer animation, video, and video editing of composites with audio. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	540	Digital Motion Studies	Fine arts digital motion studies using computer animation and video. Studio. Fee. Prerequisite: ART 346 or instructor approval. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Art	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	551	Advanced Intaglio	Gives students the opportunity to further develop their skills with intaglio printmaking techniques. Primary areas of research include image development, multiple plate and color printing. Additional techniques include lift grounds, spit bite aquatint, white ground, and viscosity printing. Develops sharper critical responses, both aesthetically and conceptually, to their own work, as well as the work of other artists. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		Prerequisites: Your total Earned Hours must be greater than or equal to 108 AND Academic Level must be Senior or Post Bac Undergrad OR you must be a Non Degree Grad or in any Grad program
ART	582	Art Research	Independent study research using classroom facilities and supplies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	1-3		
ART	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Art	1-12		
ART	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	621	Studio Problems	Advanced study. 6 hours a week each section. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Art	3.		
ART	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Art	1-12		
ART	682	MFA Exhibition Research	MFA exhibition practicum using classroom facilities and supplies. Can be used in place of ART 680.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Art	1-6		
ART	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Art	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Seniors or Post Bacc undergraduates with minimum of 108 earned hours
ART	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ART	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ART	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ART	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ART	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	STO	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
AS	150	Animal Husbandry		Y	LEC	Y	CNV	Ira A. Fulton Engineering	W. P. Carey School of Business	3.		
ASB	100	Introduction to Global Health	Current global health crises, challenges; tools for describing health and disease; ecological, cultural, social, historical, political-economic factors; comparative health systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
ASB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	200	Food and Culture	Uses the case of food to explore how culture shapes human well-being, including the impact of political-economic systems on what we have and chose to eat.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & C	Pre-requisites: Students who have credit for SSH 200, may not enroll in ASB 200. Must have ENG 101, 105, 107, or ENG 111.
ASB	202	Immigration and Ethnic Relations in the U.S.	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H & C	
ASB	210	Human Sexuality: Anthropological Perspectives	Examines the sexual nature and behavior of humans from both a biological and an anthropological point of view.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G	
ASB	222	Buried Cities and Lost Tribes	Archaeology through its most important discoveries: human origins, Pompeii, King Tut, the Holy Land, Southwest Indians, and methods of field archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	223	Buried Civilizations of the Americas	Archaeology through examination of several ancient civilizations of Meso-, South, and North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	230	Beginning Culture Theory	Bridges ASB 102 and upper-division courses; introduces cultural theory and fosters independent thinking, critical analysis, communication, and adaptability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	231	Arch Field Methods	Excavation of archaeological sites and recording and interpretation of data. Includes local field experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	
ASB	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G	
ASB	252	Anthropology of Sports	Cross-cultural examination of symbolic and social dimensions of sports past and present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
ASB	301	Global History of Health	Examines disease and health transitions in broadest context of human history, from primate ancestors to hunter-gatherers, to transcontinental contact, colonialism, industrialization, urbanization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit in SSH 301, you may not enroll in ASB 301
ASB	302	Ethnographic Field Study in Mexico	Fieldwork study of cultural adaptation, Mexican culture, United States-Mexican cultural conflict, ethnographic research methods, and local culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	
ASB	310	Precolonial Africa	Surveys social, economic, political, cultural, and economic institutions and civilizations of Africa before European colonialism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	311	Principles of Social Anthropology	Comparative analysis of domestic groups and economic and political organizations in primitive and peasant societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G & H	

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ASB	314	Comparative Religion	Origins, elements, forms, and symbolism of religion; a comparative survey of religious beliefs and ceremonies; the place of religion in the total culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	319	The North American Indian	Archaeology, ethnology, and linguistic relationship of the Indians of North America. Does not include Middle America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	320	Indians of Arizona	Traditional cultures and the development and nature of contemporary political, economic, and educational conditions among Arizona Indians.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	321	Indians of the Southwest	Cultures of the contemporary Indians of the southwestern United States and their historic antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & H & C	
ASB	322	Peoples of Mesoamerica	Indigenous, mestizo, and national cultures, rural and urban peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	324	Peoples of the Pacific	Peoples and cultures of Oceania focusing particularly on societies of Melanesia, Micronesia, and Polynesia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	325	Peoples of Southeast Asia	Cultural-ecological perspective on the peoples of mainland and insular Southeast Asia. Subsistence modes, social organization, and the impact of modernization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	326	Human Impacts on Ancient Environments	World survey of successful and unsuccessful ancient societies and their impacts on the environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	
ASB	327	Action Anthropology	Explores contemporary issues and problem solving in Cuna, Micronesia, Mayan, and U.S. Latino communities, through applied anthropology and community initiatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	330	Principles of Archaeology	Methods and theories for reconstructing and explaining the lifeways of prehistoric peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: ASB 222 or ASB 223, with a grade of D or better
ASB	335	Prehistory /Southwest	Anthropological understandings of major cultural processes and events in the prehistory of the American Southwest using evidence from archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H & C	
ASB	337	Pre-Hispanic Civilization of Middle America	Preconquest cultures and civilizations of Mexico. The Aztecs, Mayas, and their predecessors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(HU or SB) & G & H	
ASB	338	Archaeology of North America	Origin, spread, and development of the prehistoric Indians of North America up to the historic tribes. Does not include the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	
ASB	344	Technology and Society	Development of technology in relation to society, work, science, the environment, public health, and cultural values related to social change.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L or SB	
ASB	350	Anthropology and Art	Art forms of people in relationship to their social and cultural setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	HU	
ASB	351	Psychological Anthropology	Approaches to the interrelations between the personality system and the sociocultural environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-4	(HU or SB) & G	
ASB	355	Shamanism, Healing, and Consciousness	World views, practices, and roles of shamans and traditional and contemporary healers; explanatory biopsychological models of consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	HU or SB	
ASB	361	Pleistocene Archaeology	Biosocial evolution in the Pleistocene, emphasizing technological achievements and the relationship between technology and environment in western Europe, sub-Saharan Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	H	
ASB	362	The Neolithic Revolution and its Consequences	Surveys models for the appearance of food production in the Old World, and its consequences for emergent social complexity.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	H	
ASB	366	African Archaeology: Precolonial Urban Culture	Overview of African civilization from the last 10,000 years up to 1850 via archaeological, documentary, and oral data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G & H	
ASB	368	Prehistoric and Historic Hunter-Gatherers	Studies known hunting and gathering societies with the goal of developing approaches to understanding past hunting and gathering societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	400	Cultural Factors in International Business	Anthropological perspectives on international business relations; applied principles of cross-cultural communication and management; regional approaches to culture and business.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	G	
ASB	402	Visual Anthropology	Explores visual anthropology as a method for social documentation, and as a way to interpret cultural ways of seeing. Brings together anthropology, fine art, and art history students to exchange ideas about how we create, interpret, and communicate visual meanings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	410	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	
ASB	412	History of Anthropology	Historical treatment of the development of the culture concept and its expression in the chief theoretical trends in anthropology between 1860 and 1950.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L or SB	

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ASB	416	Economic Anthropology	Economic behavior and the economy in preindustrial societies; description and classification of exchange systems; relations among production, exchange systems, and other societal subsystems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L or SB	
ASB	417	Political Anthropology	Comparative examination of the forms and processes of political organization and activity in primitive, peasant, and complex societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	
ASB	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	430	Social Simulation	Introduces computer simulation and agent-based modeling to study social systems. Credit is allowed for only ASB 430 or CPI 430.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	CS	
ASB	443	Cross-Cultural Studies in Global Health	Direct investigations of society, ecology, and health in international settings.	N	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-6	SB & G	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit for SSH 403, you may not enroll in ASB 443
ASB	452	Community Partnerships for Global Health	Supervised community-based activities relevant to a global perspective on contemporary U.S. health. Addresses community-identified issues using appropriate methodologies.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9	SB	Pre-requisites:SSH 400 or ASB 440 with a grade of D or better, or currently enrolled. If you have credit for SSH 402, you may not sign up for ASB 452
ASB	455	Senior Seminar in Global Health	Students create health solutions, integrating theoretical, methodological, ethical, and experiential learning related to the global health major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	462	Medical Anthropology: Culture and Health	Role of culture in health, illness, and curing; health status, provider relations, and indigenous healing practices in United States ethnic groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	C	
ASB	463	Political Ecology of the Border	Using a political ecology approach, focuses on the creation of border communities of Southwest North America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	464	The Ethnography of Mexican Border Rural Settings	Focuses on the internal characteristics of a selected Mexican rural border towns and villages; analyzes the dynamics of development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
ASB	466	Peoples and Cultures of Africa	Surveys African peoples and their cultures, external contact, and changes. Meets non-Western requirement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G & H	
ASB	471	Introduction to Museums	History, philosophy, and current status of museums. Explores collecting, preservation, exhibition, education, and research activities in different types of museums. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	
ASB	480	Principles of Linguistics	Descriptive and historical linguistics. Surveys theories of human language, emphasizing synchronic linguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	481	Language and Culture	Applies linguistic theories and findings to nonlinguistic aspects of culture; language change; psycholinguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	483	Sociolinguistics and the Ethnography of Communication	Relationships between linguistic and social categories; functional analysis of language use, maintenance, and diversity; interaction between verbal and nonverbal communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	485	U.S.-Mexico Border in Comparative Perspective	Explores the multicultural and social dimensions of communities along the U.S.-Mexico border, emphasizing social organization, migration, culture, and frontier ideology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	489	Doing Research in Anthropology	Research process learned through critical evaluation of literature, hands-on analysis and interpretation of data, and scientific writing Rotating topics. May be repeated for credit.	N	LAB	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASB	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Must be an Honors student
ASB	493	Honors Thesis	Honors Thesis	N	RSC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6	L	Pre-requisites: Must be an Honors student
ASB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASB	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		Pre-requisites: Must be an Honors student
ASB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
ASB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	DIS	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
ASB	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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ASB	501	Applied Medical Anthropology	Overview of anthropology's applications in medicine and its adaptations to U.S. ethnic populations. Requires research project in medical setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	502	Health of Ethnic Minorities	Prevalence of illness, risk factors, health ecology, and medical and indigenous treatments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	503	Medical Anthropology	Theory in medical anthropology and cross-cultural studies that illustrate particular theories. ASB 503/SSH 503.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	504	Ethnic Relations	Structural processes of intergroup relations, methods for investigating psychocultural dimensions of ethnicity with focus upon U.S. ethnic groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	506	Gender, Emotions, and Culture	Relationships among gender and emotion across cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	508	Colonial Rule and the African Experience	Impact of European colonial rule on the shaping of African consciousness.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	510	Health: Social and Biocultural Theories	Comparative and critical approaches to complexities of health, drawn from anthropology and related fields Focuses on theories that address how social and cultural factors shape human health.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	511	Ethics in Health Social Science Research	Ethics and social justice issues in community-based health research relevant to health social science, including informed consent, community involvement, control, advocacy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	512	Social Science Applications in Community Health	Supervised community-based activities relevant to improvement of health through application of social science theory.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	513	Research Design and Proposal Writing in Health Social Science	Research design, piloting, and proposal writing for social scientists conducting health research.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	525	Introduction to Material Culture	Considers how objects embody social relationships and therefore cultural meanings. Seminar explores theories that give insight into social processes such as exchange, consumption, and identity.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	529	Culture and Political Economy	Origin and spread of Western capitalism and its impact on non-Western societies. Utilizes ethnographic and historical case studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	530	Ecological Anthropology	Relations among the population dynamics, social organization, culture, and environment of human populations, with special emphasis on hunter-gatherers and extensive agriculturalists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	531	Anthropology of Development	Theories of development and the human and environmental consequences of development, with particular emphasis on rural Southeast Asia.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	532	Graduate Field Anthropology	Independent research on a specific anthropological problem to be selected by the student in consultation with the staff. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	2-8		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	533	Sustainable Urban Dynamics.	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: If you have received credit for SOS 532, you may not enroll in ASB 533. Graduate students only
ASB	536	Ethnohistory of Mesoamerica	Indigenous societies of southern Mexico and Guatemala at Spanish contact and their postconquest transformation. Emphasis on the Aztec Empire.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	537	Topics in Mesoamerican Archaeology	Explores changing organization of pre-Columbian civilizations in Mesoamerica through interpretive issues, such as regional analysis, chiefdoms, urbanism, and exchange.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	540	Scholarly Inquiry in Anthropology	Basic issues and concepts in anthropology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASB	541	Theory in Sociocultural Anthropology	Basic issues and concepts in sociocultural anthropology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	542	Archaeology of Small-Scale Societies	Approaches to small-scale (i.e., hunter-gatherer and tribal) societies, archaeological method and theory, ethnography, models of human and cultural evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	543	Method and Theory of Archaeology II	Covers concepts of social complexity along with economy, demography, and social dynamics, followed by archaeological research design.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	544	Settlement Patterns	Spatial arrangement of residences, activity sites, and communities over landscape. Emphasizes natural and cultural factors influencing settlement patterns.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	546	Pleistocene Prehistory	Development of society and culture in the Old World during the Pleistocene epoch, emphasizing technological change through time and the relationship of people to their environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	547	Issues in Old World Domestication Economies	Archaeological evidence for transitions in Old World subsistence economies from hunting and gathering to dependence on domesticated plants and animals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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ASB	549	Chieftoms	Examines archaeological evidence of chiefdoms, distinguished by hereditary leadership and non-bureaucratized decision-making elite, to illustrate emergence of social complexity, inequality.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	550	Economic Archaeology	Prehistoric economies in hunter-gatherer, tribal, and complex societies. Covers subsistence strategies, craft production and specialization, and exchange.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	551	Prehistoric Diet	Critical review of techniques for recovering dietary information and theoretical models concerned with explaining diet and nutrition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	555	Complex Societies	Examines structural variations in hierarchically organized societies, along with origins, dynamics, and collapse.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	558	Mortuary Practices and Cultural Analysis	Critical overview of theory and methods of reconstructing lifeways of past peoples with ethnographic/archaeological data and a bioarchaeological perspective.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	559	Archaeology and the Ideational Realm	Postprocessual and other views concerning relevance of mental phenomena for understanding sociocultural change. Various approaches to inferring prehistoric meanings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	560	Archaeology of the Social Realm.	Applies social theory to archaeological study of societies of the past. Includes practice theory, hierarchy, space and place, material culture.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	563	Hunter-Gatherer Adaptations	Evolution of prehistoric hunter-gatherer societies in the Old and New Worlds from the most ancient times through protohistoric chiefdoms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	567	Southwestern Archaeology	Broad coverage of Southwestern cultural developments focusing on current debates and rigorous use of archaeological data in making cultural inferences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	568	Intrasite Research Strategies	Research issues within a single site context. Topics include quantitative spatial analysis, site definition, sampling, distributional analysis, and substantive interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	570	Immigration to the U.S.	Covers some of the major topics and issues in immigration studies with a focus on the United States. Uses both theoretical works dealing with the causes and consequences of international migration and ethnographic accounts of actual immigrant lives. Broadly interdisciplinary and incorporates perspectives from sociology, political science, economics, and other fields; emphasizes anthropological approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	571	Museum Principles	History, philosophy, and current status of museums. Explores collecting, preservation, exhibition, education, and research activities in different types of museums.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	572	Museum Collection Management	Principles and practices of acquisition, documentation, care, and use of museum collections; registration, cataloging, and preservation methods; legal and ethical issues. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	573	Museum Administration	Formal organization and management of museums, governance, personnel matters, fund raising and grantsmanship, legal and ethical issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	574	Exhibition Planning and Design	Exhibition philosophies and development; processes of planning, designing, staging, installing, evaluating, and disassembling temporary and long-term exhibits.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	575	Computers and Museums	Basics of museum computer application; hardware and software; fundamentals of database management; issues of research, collections management, and administration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	576	Museum Interpretation	Processes of planning, implementing, documenting, and evaluating educational programs in museums for varied audience--children, adults, and special interest groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	577	Principles of Conservation	Preservation of museum objects: nature of materials, environmental controls, and causes of degradation; recognizing problems, damage, and solutions; proper care of objects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	579	Critical Issues in Museum Studies	Current debates of museum practice from an anthropological perspective. Addresses issues of collection, presentation, authenticity, and authority.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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ASB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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ASB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(HU or SB) & G	
ASB	311	Principles of Social Anthropology	Comparative analysis of domestic groups and economic and political organizations in primitive and peasant societies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G & H	
ASB	319	The North American Indian	Archaeology, ethnology, and linguistic relationship of the Indians of North America. Does not include Middle America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
ASB	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.
ASB	340	Migration and Culture	Examines migration and culture embedded in a transnational field of social, economic, and political processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	346	Marriage and Family Diversity	Social, economic, and cultural factors that shape family diversity in relation to generational and gender dynamics within the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	350	Anthropology and Art	Art forms of people in relationship to their social and cultural setting.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3-4	(HU or SB) & G	
ASB	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
ASB	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
ASB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
ASB	440	Women in the Global Factory	Examines the impact of Third World women's incorporation into the new global division of labor in the late 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	441	Sexuality and Culture	Uses a global, comparative approach to examine the cultural and historical construction of sexualities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	442	Urban Anthropology	Issues in understanding urban culture and social space from interdisciplinary anthropological perspective. May involve fieldwork. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
ASB	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
ASB	447	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
ASB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	493	Honors Thesis	Honors Thesis	N	RSC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
ASB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

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ASB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
ASB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
ASB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
ASB	102	Introduction to Cultural and Social Anthropology	Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture. Social, political, and economic systems; religion, aesthetics, and language.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
ASB	202	Immigration and Ethnic Relations in the U.S.	Processes of intercultural relations; systems approach to history of U.S. interethnic relations; psychocultural analysis of contemporary U.S. ethnic relations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
ASB	211	Women in Other Cultures	Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
ASB	222	Buried Cities and Lost Tribes	Archaeology through its most important discoveries: human origins, Pompeii, King Tut, the Holy Land, Southwest Indians, and methods of field archaeology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	
ASB	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
ASB	321	Indians of the Southwest	Cultures of the contemporary Indians of the southwestern United States and their historic antecedents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H & C	
ASB	335	Prehistory /Southwest	Anthropological understandings of major cultural processes and events in the prehistory of the American Southwest using evidence from archaeology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
ASB	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3-4	(HU or SB) & G	
ASC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ASC	301	Contextual Uses of Algebra in Technology	Uses algebra to solve real-world technological problems using currently available computer software.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-requisites: Polytechnic BAS student
ASC	302	Contextual Uses of Geometry in Technology	Uses geometrical concepts to solve real-world technological problems using currently available computer software.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ASC	303	Contextual Uses of Trigonometry in Technology	Topics for close examination in selected dramatic and/or nondramatic works. May be repeated for credit when topics vary.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		
ASC	315	Numeracy in Technology	Contextual uses of mathematics in applied sciences. Emphasizes using mathematical methodologies to solve technology-related problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	
ASC	325	Physical Sciences in Technology	Physical systems and their interrelationships on technology systems. Real-world applications of physical systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
ASC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
ASC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-12		
ASE	549	Stat Applicatns Engr		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Arizona State University	3.		
ASE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		Pre-requisites: Must be a non degree undergraduate student with less than or equal to 25 total earned hours
ASE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
ASE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
ASE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6	L	Pre-requisites: Must be an Honors student
ASE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-7		
ASE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		
ASE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
ASE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
ASE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
ASM	104	Bones, Stones, and Human Evolution	Physical anthropology and archaeology. Evidence and processes of human evolution and of culture change. Primates. Fossil hominids and their tools. Race, variation, and heredity. Environment and human biology. Prehistoric culture and society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SB or SG	
ASM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ASM	246	Human Origins	History of discoveries and changing interpretations of human evolution. Earliest ancestors to emergence of modern humans. Humanity's place in nature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	275	Forensic Anthropology	Discusses the role of the forensic anthropologist in medico-legal investigations involving skeletonized human remains. Includes forensic recovery techniques, identification of decedents through skeletal and dental analysis, and reconstructing the crime scene through analysis of trauma patterns. Covers the legal aspects of forensic practice and considers historical case studies and the contributions forensic anthropologists make to mass disaster investigations and human rights abuses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
ASM	301	Peopling of the World	Reviews all evidence for human dispersal during the last 100,000 years, origins of language, cultures, races, and beginnings of modern humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites:ASM 104 with a grade of D or better
ASM	332	Life and Death in Ancient Egypt	Reveals ancient Egyptian life through recent research in archaeology and physical anthropology on cemeteries, tombs, and the dead themselves.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: ASB 222

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASM	338	Anthropological Field Session	Anthropological field techniques, analysis of data, and preparation of field reports. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	2-8		
ASM	341	Human Osteology	Osteology, human paleontology, and osteometry. Description and analysis of archaeological and contemporary human populations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASM 104
ASM	342	Human Biological Variation	Evolutionary interpretations of biological variation in living human populations, with emphasis on anthropological genetics and adaptation. Nutrition and disease and their relation to genetics and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	
ASM	344	Fossil Hominids	The fossil evidence for human evolution, emphasizing the concepts and methods for reconstructing the past.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	H	Pre-requisites:ASM 104 with a grade of D or better
ASM	345	Disease and Human Evolution	Interaction of people and pathogens from prehistoric times to the present, with emphasis on disease as an agent of genetic selection.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104, or BIO 100, or BIO 187, or BIO 188, with a D or better
ASM	348	Social Issues in Human Genetics	Moral and social implications of developments in genetic science, particularly as they affect reproduction, medicine, and evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	
ASM	365	Laboratory Methods in Archaeology	Techniques of artifact analysis. Basic archaeological research techniques; methods of report writing. May be repeated for credit for total of 8 hours.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASM 104 with a D or better
ASM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	401	Health and Human Biology	Health and biology in contexts of human evolutionary history, biological and cultural variation, lab-based health status assessments, core concepts of human variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASB 100 (or SSH 100) and ASM 104 with a D or better
ASM	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: Students who have credit for SSH 414, or SOS 414, may not enroll in ASM 414; Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
ASM	424	Dynamic Modeling in Social and Ecological Systems	Introduces the development and use of dynamic mathematical models to study social and ecological phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better; Students who have credit in SOS 424 or BIO 424, may not enroll in ASM 424
ASM	435	Archaeological Pollen Analysis	Theory, methodology, and practice of pollen analytic techniques. Compares uses in botany, geology, and archaeology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	443	Primatology	Evolution and adaptations of nonhuman primates, emphasizing social behavior. Includes material from fossil evidence and field and lab studies in behavior and biology which must be critically integrated with relevant competing theories concerning the evolution of primate behavior and biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104 with C or better; 56 hours or more
ASM	446	Principles of Human Genetics	Molecular and cellular analysis of the human genome.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	Pre-requisites:Completed BIO 340 or ASM 301 with a C or better; If you have credit in ASM 446, you may not enroll in BIO 446
ASM	448	Geoarchaeology	Geologic context relevant to archaeological research. Topics include sediments, deposition environments, soils, anthropogenic and biogenic deposits, and quaternary chronology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASB 222 (or 223), or GLG 101 (or 103), or GPH 111, with a grade of D or better
ASM	450	Bioarchaeology	Surveys archaeological and physical anthropological methods and theories for evaluating skeletal and burial remains to reconstruct biocultural adaptation and lifeways.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: ASM 104
ASM	452	Dental Anthropology	Human and primate dental morphology, growth, evolution, and genetics. Within- and between-group variation. Dental pathology and behavioral-cultural-dietary factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.	SG	Pre-requisites: ASM 104. Credit is allowed for only ASM 552 or ASM 452
ASM	454	Comparative Primate Anatomy	Functional anatomy of the cranial, dental, and locomotor apparatus of primates, including humans, emphasizing the relation of morphology to behavior and environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ASM	455	Primate Behavior Laboratory	Instruction and practice in methods of observation and analysis of primate behavior. Discusses the relationship between class work on captive animals and field techniques for studying free-ranging groups.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	L	Pre-requisite: ASM 343
ASM	456	Infectious Disease and Human Evolution	Study of infectious disease and humanity, using evidence from anthropology, history, medicine, and ancient skeletons.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: ASM 345
ASM	459	Forensic Anthropology	Applies anthropology, primarily human osteology, to legal questions, including individual identification, crime scenes, forensic reports, police work, and court testimony.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 341 and 275 with a D or better. Students who have credit for ASM 559, may not enroll in ASM 459
ASM	460	Human Growth and Development: An Evolutionary Perspective	How growth and development influences human variation; stages of human life; evolution through the fossil record; genetic, environmental, and biocultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 104 with C or better; ASM 341, ASM 342, ASM 344, ASM 345 or ASM 348
ASM	465	Quantification and Analysis for Anthropologists	Statistical and quantitative strategies for envisioning and exploring archaeological, physical anthropological, bioarchaeological, and socialcultural data. Univariate and bivariate methods. A basic understanding of algebra is necessary to be successful in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	CS	

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ASM	472	Archaeological Ceramics	Analysis and identification of pottery wares, types, and varieties. Systems for ceramic classification and cultural interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Must be an Honors student
ASM	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6	L	Pre-requisites: Must be an Honors student
ASM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ASM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		Pre-requisites: Must be an Honors student
ASM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-7		
ASM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
ASM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	525	Primate Paleobiology	Seminar-based survey of primate evolution, focusing on comparative biology of the extant primates and the fossil record through the Miocene.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	530	Paleoanthropology	Seminar-based in-depth study of the fossil record of human evolution and its geological, environmental, and phylogenetic contexts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	543	Primateology	Advanced study of nonhuman primate behavioral adaptations, emphasizing comparative sociality, incorporating data on behavior and biology from field and captivity.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ASM	546	Principles of Human Genetics	Examines human molecular genetics from an evolutionary perspective, particularly analysis, current debates, the Human Genome Project, disease, ethics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	548	Geoarchaeology	Geologic context relevant to archaeological research. Topics include sediments, deposition environments, soils, anthropogenic and biogenic deposits, and quaternary chronology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	552	Dental Anthropology	Evolutionary anthropology of non-human primate and human dentition and research from extant and extinct species of non-human primates and hominins.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: Graduate students only. Students who have credit for ASM 452, may not enroll in ASM 552
ASM	555	Advanced Human Osteology	Intensive lab course covers identification of human skeletal remains and bone fragments from archaeological contexts. Emphasizes skeletal biology, variation, anatomical landmarks, determinants of age, sex, and stature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisite: ASM 341 or Anthropology graduate student
ASM	559	Forensic Anthropology	Applies anthropology, primarily human osteology, to legal questions, including individual identification, crime scenes, forensic reports, police work, and court testimony.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking); Credit is allowed for only ASM 459 or 559
ASM	560	Human Growth and Development: An Evolutionary Perspective	How growth and development influences human variation; stages of human life; evolution through the fossil record; genetic, environmental, and biocultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	565	Quantitative Archaeology	Formal methods of structuring, codifying, and analyzing data for archaeological problems. Designing research to yield data amenable to productive analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	566	Advanced Topics in Quantitative Archaeology	Archaeological issues associated with quantitative analysis, e.g., Bayesian and Monte Carlo approaches, simulation, diversity. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASM 565 with a D or better. Graduate student only
ASM	568	GIS and Spatial Technologies in Anthropological Research	In-depth survey of spatial technologies in anthropological research, including GIS, spatial modeling, remote sensing, and image analysis and classification.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	573	Lithic Analysis	Analysis and interpretation of chipped stone artifacts. Focus on both techniques and underlying concepts and their application to real collections.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	579	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	611	Paleopathology	Explores patterns of disease manifested in the human skeleton and differential diagnosis of infectious, metabolic, neoplastic, congenital, and other conditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); ASM 555
ASM	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ASM	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		

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ASM	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ASM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ASM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ASM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
AST	111	Introduction to Solar Systems Astronomy	History, properties of light, instruments, study of solar system and nearby stars. For nonscience majors. Optional lab (AST 113). Both AST 111 and AST 113 or AST 114 must be taken to secure SQ general studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	112	Introduction to Stars, Galaxies, and Cosmology	Structure and evolution of stars, star clusters, galaxies, cosmology. For nonscience majors. Optional lab (AST 114). Both AST 112 and AST 113 or AST 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	113	Astronomy Laboratory I	Astronomical observations and experiments designed to help the student become familiar with the sky, telescopes, and astronomical measurements. Both AST 111 and 113 or AST 113 and 321 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	Pre/Co-requisite: AST 111 or AST 321
AST	114	Astronomy Laboratory II	Similar to AST 113, but material chosen to supplement AST 112 and 322. Fee. Both AST 112 and 114 or AST 114 and 322 must be taken to secure SQ General Studies credit	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	
AST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		Pre-requisite: Maximum 25 hours
AST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
AST	321	Introduction to Planetary and Stellar Astrophysics	Physical laws; celestial mechanics; properties of planets, the sun, and other stars; formation and evolution of stars and planetary systems. Both AST 113 and 321 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	322	Introduction to Galactic and Extragalactic Astrophysics	Evolved stars, introduction to relativity, galaxies and interstellar matter, structure and dynamics of galaxies, cosmology. Both AST 114 and 322 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
AST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	421	Astrophysics I	Selected astrophysical topics, including stellar evolution, star formation, interstellar medium, galactic structure, extragalactic astronomy, high-energy astrophysics, and cosmology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	422	Astrophysics II	Same range of astrophysical topics as for AST 421 but emphasizes different specific topics in a given year.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	492	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		Pre-requisites: Must be an Honors student
AST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6	L	Pre-requisites: Must be an Honors student
AST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AST	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
AST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-7		
AST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
AST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	521	Stars and Interstellar Medium I	Radiative transfer, atomic and molecular properties, stellar atmospheres, line profiles, nonlocal thermodynamic equilibrium, interstellar gas and dust, star formation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	522	Stars and Interstellar Medium II	Stellar structure, radiative transport, boundary conditions, equations of state, nuclear reactions, opacity, nucleosynthesis, chemical evolution of the galaxy, stellar evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	523	Stars and Interstellar Medium III	Structure of the interstellar medium, gaseous nebulae, recombination theory, ionization fronts and shock waves, galactic magnetic fields, magnetohydrodynamics, molecular clouds.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	531	Galaxies and Cosmology I	Structure and evolution of the Milky Way, stellar properties, populations and associations/clusters, interstellar medium, dark matter.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	532-M	Galaxies and Cosmology II	Structure of galaxies and the nearby universe, Hubble sequence, kappa-space, stellar populations, active galaxies, galaxy environments.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	533	Galaxies and Cosmology III	Issues in modern cosmology, the distance scale, cosmological parameters, cosmological tests, cosmic background radiation, early universe, galaxy formation and evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
AST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	591-M	Seminar		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
AST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
AST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
AST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
AST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
AST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
AST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
AST	111	Introduction to Solar Systems Astronomy	History, properties of light, instruments, study of solar system and nearby stars. For nonscience majors. Optional lab (AST 113). Both AST 111 and AST 113 or AST 114 must be taken to secure SQ general studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	
AST	112	Introduction to Stars, Galaxies, and Cosmology	Structure and evolution of stars, star clusters, galaxies, cosmology. For nonscience majors. Optional lab (AST 114). Both AST 112 and AST 113 or AST 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	
AST	113	Astronomy Laboratory I	Astronomical observations and experiments designed to help the student become familiar with the sky, telescopes, and astronomical measurements. Both AST 111 and 113 or AST 113 and 321 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre/Co-requisite: AST 111 or AST 321
AST	114	Astronomy Laboratory II	Similar to AST 113, but material chosen to supplement AST 112 and 322. Fee. Both AST 112 and 114 or AST 114 and 322 must be taken to secure SQ General Studies credit	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre- or Co-requisites: AST 112 or AST 322 (with or better if completed)
AST	301	Discovering the Sun and Its Planets	Comprehensive course in astronomy for non-science majors. Course will include lectures, written assignments, and hands-on work. Not open to students with credit in AST 111 (available at the Tempe campus) or its equivalent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
AST	302	Modern Astronomy	Comprehensive course in astronomy for non-science majors. Covers achievements and controversies of 20th century astronomy through lectures, written assignments, and hands-on work. Not open to students with credit in AST 112 (available at Tempe campus) or its equivalent.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
AST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
AST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
AST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
AST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
ASU	101-CPP	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	College of Public Programs	College of Public Programs	1.		Pre-requisite: College of Public Programs student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASU	101-CTI	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	College of Tech & Innovation	Dean, College of Technology and Innovation	1.		Prerequisite(s): College of Technology and Innovation student
ASU	101-CS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		Pre-requisite: Cronkite School of Journalism and Mass Communication student
ASU	101-HDA	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		Pre-requisite: Herberger Institute of Design and the Arts student
ASU	101-FSE	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		Pre-requisite: Fulton School of Engineering student
ASU	101-LA	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1.		Pre-requisite: College of Liberal Arts & Sciences student
ASU	101-NCIAS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1.		Pre-requisite: New College of Interdisciplinary Arts & Sciences student
ASU	101-NU	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Nursing & Healthcare Innovation students only
ASU	101-SOS	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	1.		Pre-requisite: School of Sustainability student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ASU	101-TE	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Teacher Education and Leadership student
ASU	101-UC	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	University College	Dean, University College	1.		Pre-requisite: University College student
ASU	101-WPC	The ASU Experience	Students will learn about ASU's mission as the New American University, the importance and benefits of an entrepreneurial approach to problem solving, solutions to sustainability challenges, and the importance of social embeddedness. Additionally, through various course discussions and assignments, students will examine the concept of academic integrity and its potential impact on their future, gain awareness of the value of engaging in research activities, and learn about taking an interdisciplinary perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	1.		Pre-requisite: W.P.Carey student
ATC	230	Fundamentals of Air Traffic Management	Introduces the manuals, procedures, maps, charts, and regulations used by air traffic controllers in the National Airspace System (NAS).	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ATC	331	Tower Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in ATC towers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	332	TRACON Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in FAA TRACONs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	333	En Route Operations	Provides knowledge of air traffic control procedures, phraseology, equipment, and aircraft separation requirements used in FAA ATC En Route Centers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Must have a C or better in AMT 201 and ATC 230, or be currently enrolled
ATC	431	Tower Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:completed ATC 331 with a grade for D or better or be currently enrolled
ATC	432	TRACON Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ATC	433	En Route Operations and Procedures	Opportunity to operate in tower simulator environment to run scenarios for local and ground control and flight data/clearance delivery.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:Completed ATC 333 with a grade of D or better, or currently enrolled
ATC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ATE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ATE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
ATE	361	Building Structures I	Introduces load distribution on structures. Static analysis of determinant beams, trusses, arches, and rigid frames. Computer applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisite: ADE 321
ATE	362	Building Structures II	Strength of materials. Stresses in beams and columns. Thermal effects on structures. Analysis, design, and detailing of wood structural systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
ATE	451	Building Systems I	Principles of solar radiation, heat and moisture transfer, and environmental control systems as form influences. Energy-conscious design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: ADE 421
ATE	452	Building Systems II	Architectural design implications of heating, ventilation, and air conditioning systems. Principles of lighting, daylighting, and acoustics, and their applications.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: ATE 451 with C or better; Co-requisite: ADE 422
ATE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ATE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
ATE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
ATE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	521	Building Environmental Science	Scientific principles relating to comfort and environmental control. Heat and moisture transfer. Solar/natural energies for heating, cooling, and lighting.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	550	Passive Heating and Cooling	Theory, analysis, and application of passive and low-energy systems in order to maximize comfort and minimize energy consumption in buildings.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	553	Building Systems III	Design and integration of building systems, including mechanical, electrical, plumbing, security, communications, fire protection, and transportation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student; Co-requisite: ADE 521; ATE 563
ATE	556	Building Development	Comprehensive design development through the understanding and integration of building materials and systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: ADE 522 and APH 505
ATE	557	Construction Documents	Production of architectural working drawings; legal status, organization, layout, site survey plans, sections, elevations, details, schedules, and coordination.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	560	Building Energy Analysis	Computer simulation of building thermal behavior. Software review. Detailed study of selected simulation models using case study projects.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	562	Experimental Evaluation	Instrumentation, measurement and computational techniques for analysis of building components, and assessment of thermal and luminous performance. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	563	Building Structures III	Analysis, design, and detailing of steel buildings and frames. Lateral analysis of small rigid and braced frame systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Master of Architecture student
ATE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	582	Environmental Control Systems	Heating, ventilation, and air-conditioning systems. Loads, psychrometrics, refrigeration cycle, air/water distribution, controls, energy performance standards, and utility rates.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Bldg Design MS, Master of Architecture, Master of Urban Design, or Master of Landscape Architecture student
ATE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
ATE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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ATE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
ATE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AVC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	301	Architectural Communication	Communication skills for architecture studios. Emphasis on graphics, drawing conventions, media, computer-aided design, design of presentations, and oral presentations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		
AVC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
AVC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
AVC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
AVC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
AVC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student

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AVC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
AVC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: CHM 231 with C or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with C or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre/Co-requisite: BCH 361 or LSC 366 with C or better if completed
BCH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 231 with C or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with C or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre/Co-requisite: BCH 361 or LSC 366 with C or better if completed
BCH	392	Introduction to Research Techniques	Instrumental methods and philosophy of research by actual participation in chemical research projects. May be repeated for total of 6 semester hours.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	461	General Biochemistry	Structure, chemistry, and metabolism of biomolecules and their role in the biochemical processes of living organisms. Credit is allowed for only BCH 461 or 361.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 234 or 334 with C or better; Co-requisites: CHM 341 or CHM 346 (with C or better if completed)
BCH	462	General Biochemistry	Continuation of BCH 461.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: BCH 461 with C or better
BCH	463	Biophysical Chemistry	Principles of physical chemistry as applied to biological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 341 or CHM 346 with C or better
BCH	464	Biophysical Chemistry Laboratory	Introduces physical methods in modern biochemistry.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		Pre-or Co-requisites: BCH 463 and BCH 467 (with a grade of C or better if completed)
BCH	465	Protein and Nucleic Acid Biochemistry	Structure and function of proteins and nucleic acids, including protein folding, enzymology, proteomics, DNA/RNA structure, replication, transcription, and genomics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: BCH 462 with a C or better
BCH	467	Analytical Biochemistry Laboratory	Quantitative analysis, separation and purification of biological molecules. Applies chemical and physical methods to the characterization of biological macromolecules.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	L	Pre/Co-requisite: BCH 462 with C or better if completed
BCH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
BCH	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		

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BCH	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6	L	Pre-requisites: Must be an Honors student
BCH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-7		
BCH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
BCH	501	Current Topics in Biochemistry	May be repeated for credit.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
BCH	561	Advanced Topics in Biochemistry	Topics selected from emerging areas of biochemistry based primarily on current literature.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	564	Bionanotechnology	The use of biomolecules, bioelectronics, and biomedicine for applications in nanotechnology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	568	Molecular Mechanisms of Photosynthesis	Structure and function of photosynthetic complexes; mechanism of energy conversion in plants, bacteria, and model systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
BCH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
BCH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO 353 (or LSC 353) with C or better; CHM 231 or CHM 234 or CHM 334 with C or better; Credit is allowed for only BCH 361 or 461 (or LSC 366)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: BIO 354 (or LSC 355); Pre- or Co-requisites: BCH 361 or LSC 366 (with C or better if completed)
BCH	361	Principles of Biochemistry	Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates, and lipids; the utilization and synthesis of these materials by living systems, and the relationship of these processes to energy production and utilization. Credit is allowed for only BCH 361 or 461.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: CHM 231 with C or better OR Pre or Co-requisites: CHM 234 or CHM 334 (with C or better if completed)
BCH	367	Elementary Biochemistry Laboratory	Qualitative/quantitative analyses of constituents of biological systems, enzyme activity measurements and metabolic studies.	N	REC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.		Pre/Co-requisite: BCH 361 or LSC 366 with C or better if completed
BCS	101	Elementary Serbo-Croatian	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
BCS	102	Elementary Serbo-Croatian	See BCS 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 101 with a grade of D or better, or currently enrolled
BCS	201	Intermediate Serbo-Croatian	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 102 with a grade of D or better, or currently enrolled
BCS	202	Intermediate Serbo-Croatian	See BCS 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites:BCS 202 with a grade of D or better or currently enrolled

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BCS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
BCS	495	Serbo-Croatian for Heritage Speakers	Generates professional proficiency by developing communicative and written competency in standard literary Serbo-Croatian.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
BDE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
BDE	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Graduate College	Graduate College	1-12		
BDE	701	Fundamentals of Biological Design I	Training in the essentials of fields underlying interdisciplinary research in the biosciences and in the integration of multiple disciplines in use-inspired research. Modules concentrate on key concepts and current questions in the biological sciences, physical sciences, and engineering.	N	LEC	N	OPT	Graduate College	Graduate College	9.		
BDE	702	Fundamentals of Biological Design II	Emphasizes the integrative areas of computational bioinformatics, systems biology, and synthetic biology, and their application in biomedical research.	N	LEC	N	OPT	Graduate College	Graduate College	3.		
BDE	721	Integrative Research	Develops comprehensive solutions to societal problems by small interdisciplinary teams of students, including a proposal for research in an integrated science area. Covers issues of intellectual property, commercialization, societal impact and value, project management, product design, and historical examples of disruptive technological innovations.	N	LEC	N	OPT	Graduate College	Graduate College	3.		
BDE	722	Research Design	Writing and presentation of a research proposal in the form of a grant application, peer review sessions to provide feedback, examination of the grant review and funding process.	N	LEC	N	OPT	Graduate College	Graduate College	3.		
BDE	751	Teaching in Science	Guidance in teaching and exposition through assisting a faculty teaching mentor in the Biological Design core course and training in oral presentation skills, including instruction in how to effectively present posters and seminars and participation in outreach experiences in the community.	Y	LEC	Y	OPT	Graduate College	Graduate College	1.		
BDE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Graduate College	Graduate College	1-12		
BDE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
BDE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-15		
BDE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Graduate College	Graduate College	1-15		
BE	333	Issues in Teaching		Y	LEC	Y	CNV	Institute & Grad Sch Education	Dean, W.P. Carey School of Business	3.		
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
BIO	201	Human Anatomy and Physiology I	Studies the structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SG	
BIO	202	Human Anatomy and Physiology II	Studies the structure and function of the human body. Topics include cardiovascular, respiratory, lymphatic/immune, endocrine, renal, digestive, and reproductive systems. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		

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BIO	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: BIO 187 (or PBL 200 and PLB 201) and BIO 188 with C or better; CHM 113 and 116 with C or better
BIO	340	General Genetics	Science of heredity and variation.	N	LEL	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.		Pre-requisites:with a C or better:BIO 187 (or MBB 245, or both PLB 200 and PLB 201) and BIO 188(or MBB 247)
BIO	351	Developmental Biology	Principles of developmental biology, including the development of major organ systems and their underlying molecular and cellular mechanisms. Illustrated mainly using vertebrate examples.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites:BIO 187 and BIO 188 completed with a D or greater or currently enrolled
BIO	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: BIO 187 (or MBB 245 or both PLB 200 & PLB 201) and BIO 188 (or MBB 247) with C or better; CHM 113 and CHM 116 (or CHM 117 and CHM 118) with C or better
BIO	360	Animal Physiology	Principles and mechanisms of physiological regulation in animals, with a focus on humans.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: BIO 187 and BIO 188 with C or better; CHM 116 or CHM 118 with C or better
BIO	471	Ornithology	Biology of birds. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
BIO	480	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites:with a grade of C or better:BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	482	Advanced Methods of Teaching Biology	Design, delivery, and evaluation of student-centered, inquiry-based lessons for high school biology students. Learning cycle.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: BIO 480 with C or better
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	189	Life Sciences Career Paths	Overview of modern life sciences, including research trends, extracurricular opportunities, degree programs, and potential careers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
BIO	193	The Nature of Biological Science	Creative and critical thinking skills in biological research; nature of biological knowledge; role of experimentation, predictions, hypotheses, theories, values. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
BIO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	201	Human Anatomy and Physiology I	Studies the structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SG	
BIO	202	Human Anatomy and Physiology II	Studies the structure and function of the human body. Topics include cardiovascular, respiratory, lymphatic/immune, endocrine, renal, digestive, and reproductive systems. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites:BIO 201 with a grade of D or better
BIO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	301	Field Natural History	Organisms and their natural environment. Cannot be used for major credit in the biological sciences. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	SG	Pre/Co-requisites: BIO 300 or LSC 310 with C or better if completed
BIO	302	Cancer and Heart Disease	Incidence and mortality statistics for cancer and heart disease; host and environmental risk factors; diagnosis, treatment and prevention strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisite:BIO 188 with a C or better
BIO	303	Radiation and Life	Benefits and risks of radiation exposure in society; medical applications, food irradiation, nuclear power, solar UV, population health effects. Cannot be counted toward a biology major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisite:BIO 188 with C or better
BIO	304	Radiation Medicine and Biology	Uses of radiation in medicine, including CT, diagnostic x rays, MRI, nuclear medicine, ultrasound; biological effects of radiation with emphasis on cancer.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 188 with a grade of C or better
BIO	310	Special Problems and Techniques	Qualified undergraduates may investigate a specific biological problem under the direction of a faculty member.	N	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		
BIO	311	Biology and Society	Explores interactions between biological sciences and society, e.g., biomedical, environmental, ethical, historical, legal, philosophical, political, and social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:with a C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188. Students with credit for HPS 340, may not enroll in BIO 311

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BIO	312	Bioethics	Critical examination of moral questions arising in biomedical contexts, particularly due to new technologies and scientific discoveries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	
BIO	314	Research Colloquium in Biology and Society I	Develops critical thinking abilities, research methods, and writing skills for research in the interactions between biological sciences and society. Both BIO 314 & 414 must be taken to secure L General Studies designation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: BS Biology and Society Concentration majors; a C or better in BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	316	History of Biology: Conflicts and Controversies	Focuses on 19th and 20th centuries, considering biology as a discipline. Evolution, problems of heredity, development, and cell theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
BIO	318	History of Medicine	Scientific study of the human body, changing theories of disease, evolution of practical opinions on treatment, and the emerging institutionalization of medical practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	Credit is allowed for only BIO 318 or HPS 331
BIO	319	Environmental Science (Nonmajor)	Environmental and biological concepts applied to ecological systems with specific focus on analysis of problems caused by humans. Cannot be used for major credit in the Biological Sciences	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	G	
BIO	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or PBL 200 and PLB 201) and BIO 188 with C or better; CHM 113 and 116 with C or better
BIO	321	Introductory Ecology Laboratory	Lab and field observations and experiments to test current concepts and theories in ecology.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre/Co-requisites: BIO 320 with C or better if completed
BIO	322	Conservation Biology and Ecological Sustainability I	Species-level approaches to the protection, management, and restoration of biological resources from scientific and policy perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: A grade of C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	323	Conservation Biology and Ecological Sustainability II	Ecosystem-level approaches to the protection, management, and restoration of biota and ecosystem processes from local to global scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: A grade of C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	324	Environmental Ethics	Examines a full range of philosophical positions pertaining to our moral relationship to the natural world; anthropocentrism, individualism, biocentrism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	
BIO	325	Oceanography	Introduces marine geology, chemistry, and physical and biological oceanography. Methods of oceanic exploration, environmental and social aspects of oceans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: CHM 101 or CHM 113 with C or better; BIO 100, BIO 187 or GLG 101 with C or better; If you have credit in GLG 325, you may not enroll in BIO 325
BIO	331	Animal Behavior	Evolutionary, genetic, physiological, and ecological bases of animal behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and 188 with "C" or better
BIO	340	General Genetics	Science of heredity and variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: with a C or better: BIO 187 (or MBB 245, or both PLB 200 and PLB 201) and BIO 188 (or MBB 247)
BIO	341	Genetic Analysis	General genetics: science of heredity and variation using critical inquiry. Not open to students with credit in BIO 340.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	5.		
BIO	342	General Genetics Laboratory	Explores general principles of inheritance with special reference to Mendelian, molecular, and computational genetics via lab experiments.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: BIO 340 or BIO 341 with a D grade or better, or be co-enrolled in either BIO 340 or BIO 341
BIO	343	Genetic Engineering and Society	Introduces genetic engineering, with emphasis on applications (transgenic plants and animals, cloning, vaccines, therapeutics, and diagnostics). Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: MBB 247 or BIO 340 with a C or better; Students who have credit for BIO 343, may not enroll in MBB 343
BIO	344	Origins, Evolution, and Creation	History of opposition to evolutionary thinking with special reference to American creationism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	345	Organic Evolution	Processes of adaptive change and speciation in sexual populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) and BIO 188 with C or better; CHM 113 and CHM 116 with C or better
BIO	346	The Darwinian Revolution	Intellectual and cultural history of Darwinism and modern evolutionary theory and their impact on 19th- and 20th-century thought.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	351	Developmental Biology	Principles of developmental biology, including the development of major organ systems and their underlying molecular and cellular mechanisms. Illustrated mainly using vertebrate examples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and BIO 188 completed with a D or greater or currently enrolled
BIO	352	Laboratory in Vertebrate Developmental Anatomy	Morphology of representative embryonic and adult vertebrates. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: BIO 187 and BIO 188 with a C grade or better
BIO	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or MBB 245 or both PLB 200 & PLB 201) and BIO 188 (or MBB 247) with C or better; CHM 113 and CHM 116 (or CHM 117 and CHM 118) with C or better
BIO	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, or MAT 270 with C or better; Students with credit for MBB 355 or MAT 355 may not enroll in BIO 355
BIO	360	Animal Physiology	Principles and mechanisms of physiological regulation in animals, with a focus on humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and BIO 188 with C or better; CHM 116 or CHM 118 with C or better
BIO	361	Animal Physiology Laboratory	Experimental lab studies of physiological mechanisms in animals and model systems. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: BIO 360 (with C or better if completed)
BIO	370	Vertebrate Zoology	Characteristics, classification, evolution, and natural history of the major groups of vertebrate animals. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a grade of C or better
BIO	385	Comparative Invertebrate Zoology	Characteristics, life cycles, adaptations, and evolution of invertebrate animals. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	386	General Entomology	Form, activities, and classification of insects. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a grade of C or better
BIO	390	Medical/Dental Field Placement	Field placement for students exploring a career in a health profession. Requires classroom sessions and fieldwork.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		

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BIO	402	Service Learning	Provides academic enrichment and mentoring to economically disadvantaged children; related to course work in biology; requires weekly reflective reading and writing.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	
BIO	406	Computer Applications in Biology	Computer analysis techniques in biology emphasizing data entry, management and analysis, and graphic portrayal. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: C or better in: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	410	Techniques in Wildlife Conservation Biology	Field and analytical techniques used to evaluate wildlife populations, their structure, viability, and environmental impacts. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 320, BIO 322, and BIO 323 with C or better
BIO	411	Quantitative Conservation Biology	Principles of conservation science; demography and extinction risk; practical approaches to conserving small, declining, and exploited populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320, BIO 322 and BIO 323 with "C" or better
BIO	412	Conservation in Practice	Global biodiversity patterns, processes, and conservation; global environmental change; sustainable use of natural resources; emphasizing international approaches to conservation biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 322 and BIO 323 with C or better
BIO	414	Research Colloquium in Biology and Society II	Further develops critical thinking abilities, research methods, and writing skills for research in the interactions between biological sciences and society. Both BIO 314 & 414 must be taken to secure L General Studies designation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	Pre-requisites: BIO 314 with C or better
BIO	415	Biometry	Statistical methods applied to biological problems, design of experiments, estimation, significance, analysis of variance, regression, correlation, chi square, and bioassay; the use of computers. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	CS	Pre-requisites: Must have completed one of the following courses with a grade of C or better: MAT 210, 251, 265, or 270
BIO	416	Professional Values in Science	Considers issues related to values in science such as collaboration, finances, legal issues, media, mentoring, ownership of ideas, scientific integrity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
BIO	417	Experimental Design	Fixed, random, mixed models; crossed and nested factorial designs; balanced and unbalanced data; completely randomized, blocked, repeated measure designs; ANCOVA.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 415 with C or better
BIO	421	Landscape Ecology	Discusses how landscape heterogeneity interacts with ecological processes, and implications for biodiversity conservation, resource management, and landscape and urban planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: You may not enroll in BIO 421 if you have credit for BIO 521; must have BIO 320 with a grade of C or better
BIO	423	Population and Community Ecology	Organization and dynamics of population and communities, emphasizing animals. Theoretical and empirical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 or LSC 320 with C or better
BIO	424	Dynamic Modeling in Social and Ecological Systems	Introduces the development and use of dynamic mathematical models to study social and ecological phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better; Credit is allowed for only ASM, BIO or SOS 424
BIO	425	Animal Ecology	Physiological and behavioral adaptations of individual animals to both abiotic and biotic environments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with a grade of C or better
BIO	426	Limnology	Structure and function of aquatic ecosystems, with emphasis on freshwater lakes and streams. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3-4	L	Pre-requisites: BIO 320 with C or better
BIO	427	Fire	A survey of fire on Earth--history, ecology, behavior, and management.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	Pre-requisites: A grade of C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	428	Biogeography	Environmental and historical processes determining distributional patterns of animals and plants, emphasizing terrestrial life.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 320 with C or better
BIO	431	Genes, Development, and Evolution	Contribution of genes, developmental processes, and evolution to pattern of phenotypic variation, including disease.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 187, and BIO 188 with a grade of C or better
BIO	435	Research Techniques in Animal Behavior	Experimental and field studies of animal behavior; description and quantification of animal behavior and interpretation of behavior within an evolutionary framework.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 331 with a grade of C or better
BIO	436	Sociobiology and Behavioral Ecology	Surveys animal and human social behavior examined from ecological and evolutionary perspectives using theoretical and empirical constructs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 331 with C or better
BIO	440	Functional Genomics	Covers emerging fields of genomics and proteomics. Discusses key technologies and their applications to the study of genomes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 340 with C or better; Credit only for MBB 440 or BIO 440
BIO	446	Principles of Human Genetics	Molecular and cellular analysis of the human genome.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: Completed BIO 340 or ASM 301 with a C or better; If you have credit in ASM 446, you may not enroll in BIO 446
BIO	450	Advanced Developmental Biology	Current concepts and experimental methods involving differentiation and biosynthetic activities of cells and organisms, with examples from microorganisms, plants, and animals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 351 with C or better
BIO	451	Cell Biotechnology Laboratory	Mammalian cell culture techniques, including mouse embryonic stem cells, the use of bioreactors, cell fractionation, and digital video imaging.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 353 (or MBB 245) with C or better; Students who have credit for BME 451, may not enroll in BIO 451
BIO	453	Animal Histology	Microscopic study of animal tissues. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: with a C or better: BIO 187 and 188
BIO	455	Introduction to Comparative Genomics	Explores genomic sequences and hypotheses for their structure, evolutionary history, and underlying mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	456	Bioinformatics and Molecular Evolution	Fundamental biological motivation and methods used in bioinformatics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 345 and 355 (or MBB 355, or MAT 355) with C or better
BIO	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: C grade or better in BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	461	Comparative Animal Physiology	A comparative approach to understanding the function of animal physiological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 360 with C or better

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BIO	462	Endocrine Physiology	Mechanisms of action of hormones; endocrine control of homeostasis, growth, stress responses, and reproduction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 360 with C or better
BIO	464	Photobiology	Principles underlying the effects of light on growth, development, and behavior of plants, animals, and microorganisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better; Students who have credit in PLB 440, may not enroll in BIO 464
BIO	465	Neurophysiology	Detailed treatment of cellular and organismal neurophysiology and nervous system function.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 360 with C or better
BIO	466	Neurophysiology Laboratory	Intracellular and extracellular electrophysiological recording techniques, histological preparations, and dye-filling techniques.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: BIO 465 or BIO 467 (with C or better if completed)
BIO	467	Neurobiology	Introduces major areas of neurobiology, from fundamental cellular and molecular processes through systems neuroscience and neural bases of behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 360 with C or better
BIO	469	Computational Neuroscience: Case Studies in Neuroethology	Introduces the use of computational methods for understanding neural function at the cellular, circuit, and systems levels.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 360 with C or better
BIO	470	Systematic Zoology	Philosophy, theory, practice of interpreting animal diversity, including species concepts, speciation, nomenclature, and evolutionary and phylogenetic classification emphasizing phylogenetics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: C grade or better in BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	471	Ornithology	Biology of birds. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	472	Mammalogy	Classification, structure, habits, ecology, and distribution of mammals, emphasizing North American forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	473	Ichthyology	Systematics and biology of recent and extinct fishes. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	474	Herpetology	Classification, structure, habits, ecology and distribution of reptiles and amphibians, emphasizing North American forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 and BIO 188 with a C or better
BIO	480	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: with a grade of C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
BIO	482	Advanced Methods of Teaching Biology	Design, delivery, and evaluation of student-centered, inquiry-based lessons for high school biology students. Learning cycle.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 480 with C or better
BIO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	490	Surgical Field Placement	Advanced field placement for students exploring a career in a health profession. Requires classroom sessions and fieldwork.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 390 with C or better
BIO	492	Honors Directed Study		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		
BIO	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
BIO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	495	Undergraduate Thesis	Guided research culminating in the preparation of an undergraduate thesis based on supervised research done in this and previous semesters.	N	THE	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
BIO	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
BIO	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
BIO	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	502	Transmission Electron Microscopy	Theory, use, and methods of preparing biological materials for transmission electron microscopy. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	505	Scanning Electron Microscopy	Theory, use, and methods of preparing biological materials for scanning electron microscopy. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	508	Scientific Data Presentation	Techniques necessary for presentation of scientific data used in journal publications, grant proposals, and visual presentations. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	515	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Credit is allowed for only BIO 515, GLG 547, PAF 547 or SOS 516
BIO	516	Foundations of Bioethics	Advanced introduction to the theoretical and normative foundations of the field of bioethics. May be repeated for credit.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	520	Biology of the Desert	Factors affecting plant and animal life in the desert regions and adaptations of the organisms to these factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
BIO	521	Landscape Ecology	Discusses how landscape heterogeneity interacts with ecological processes, and implications for biodiversity conservation, resource management, and landscape and urban planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		You may not enroll in BIO 521 if you have credit for BIO 421

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BIO	522	Populations: Evolutionary Ecology	Principles of population biology and community ecology within an evolutionary framework.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	524	Ecosystems	Structure and function of terrestrial and aquatic ecosystems, with emphasis on productivity, energetics, biogeochemical cycling, and systems integration.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	525	Microclimate Methods	Techniques to measure and quantify microclimate and mass transfer. Supporting principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	526	Quantitative Ecology	Sampling strategies, spatial pattern analysis, species diversity, classification, and applications of multivariate techniques to ecology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	529	Advanced Limnology	Recent literature, developments, methods, and limnological theory; field and lab application to some particular topic in limnology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	543	Molecular Genetics	Nature and function of the gene; emphasis on the molecular basis of inheritance and gene expression in prokaryotes and eukaryotes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	545	Populations: Evolutionary Genetics	Mathematical models in the description and analysis of the genetics of populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	546	Principles of Human Genetics	Examines human molecular genetics from an evolutionary perspective, particularly analysis, current debates, the Human Genome Project, disease, ethics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	547	Techniques in Evolutionary Genetics	Practical experience in modern techniques for the study of evolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
BIO	550	Advanced Cell Biology	Applies contemporary electron microscopic and biochemical/molecular techniques for studying eukaryotic cell functions. Mechanisms of intracellular protein trafficking.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	551	Biomembranes	Structure and function of biological membranes, emphasizing synthesis, fluidity, exocytosis, endocytosis, and cell responses to hormones and neurotransmitters.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	552	Developmental Genetics	Genetic approaches to the analysis of development during the life cycle of eukaryotic organisms, and the role of genes in the unfolding of the differentiated phenotype.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	561	Comparative Animal Physiology	A comparative approach to understanding the function of animal physiological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	563	Environmental Physiology	Physiological responses and adaptations of animals to various aspects of the physical environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	564	Cellular Physiology and Signaling	Emphasizes the molecular basis for cell structure, function and intercellular signaling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
BIO	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
BIO	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	600	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		

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BIO	610	Introduction to Responsible Conduct of Research (RCR) in Life Sciences	Introduces ethical and regulatory issues in the nine core areas of responsible conduct of research. Discusses real and hypothetical cases that tie broad ethical considerations to current concern of scientists.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	611	Current Topics in Responsible Conduct of Research (RCR) in Life Sciences	Explores a single topic in the responsible conduct of research in depth. Topic changes depending on current issues in responsible conduct of research as well as the interests of the instructor and students. Possible topics include: responsible authorship; conflicts of interest; human subjects research; and misconduct, data management, and academic integrity.	N	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		Pre-requisites: BIO 610 with D or better, or co-enrolled in BIO 610
BIO	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
BIO	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
BIO	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
BIO	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
BIO	130	Introduction to Environmental Science	Introduces soil resources, their physical and chemical properties, classification, energy dynamics, and the role they play in environmental quality.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	

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BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	Pre-requisites: BIO 187 with of C or greater or be currently enrolled
BIO	300	Natural History of Arizona	Plant and animal communities of Arizona. Cannot be used for major credit in the biological sciences. Both BIO 300 and BIO 301 must be taken to secure SG General Studies credit	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SG	
BIO	301	Field Natural History	Organisms and their natural environment. Cannot be used for major credit in the biological sciences. fee	N	FLD	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SG	Pre/Co-requisites: BIO 300 or LSC 310 with C or better if completed
BIO	305	Biology Behind the Crime Scene	Explores biological technology behind forensic techniques like fingerprinting, Polymerase Chain Reaction (PCR), and paternity testing. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	Pre-requisites: Minimum Sophomore standing
BIO	306	Modes of Biological Thought	Involves students in the process of biological discovery to examine how we identify truth in biological science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed ENG101 or ENG105 and BIO181 or BIO188 and BIO182 or BIO187 with a grade of C or greater or be currently enrolled.
BIO	320	Fundamentals of Ecology	Organization, functioning, and development of ecological systems; energy flow; biogeochemical cycling; environmental relations; population dynamics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO 187 (or PBL 200 and PLB 201) and BIO 188 with C or better; CHM 113 and 116 with C or better
BIO	331	Animal Behavior	Evolutionary, genetic, physiological, and ecological bases of animal behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
BIO	332	Research Techniques in Animal Behavior	Experimental and field studies of animal behavior; description and qualification of animal behavior and interpretation of behavior within an evolutionary framework. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre/Co-requisites: BIO 331 or LSC 331 (with C or better if completed)
BIO	345	Organic Evolution	Processes of adaptive change and speciation in sexual populations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) and BIO 188 with C or better; CHM 113 and CHM 116 with C or better
BIO	353	Cell Biology	Surveys major topics in cell biology, including structural, biochemical, and molecular aspects of cell function.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO 187 (or MBB 245 or both PLB 200 & PLB 201) and BIO 188 (or MBB 247) with C or better; CHM 113 and CHM 116 (or CHM 117 and CHM 118) with C or better
BIO	354	Cell Biology Laboratory	Investigational lab using modern molecular and cellular techniques to analyze molecular, biochemical, and anatomical traits of cells. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre/Co-requisite: LSC 353 or BIO 353 (with C or better if completed)
BIO	360	Animal Physiology	Principles and mechanisms of physiological regulation in animals, with a focus on humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO 187 and BIO 188 with C or better; CHM 116 or CHM 118 with C or better
BIO	370	Vertebrate Zoology	Characteristics, classification, evolution, and natural history of the major groups of vertebrate animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		
BIO	385	Comparative Invertebrate Zoology	Characteristics, life cycles, adaptations, and evolution of invertebrate animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		
BIO	415	Biometry	Statistical methods applied to biological problems, design of experiments, estimation, significance, analysis of variance, regression, correlation, chi square, and bioassay; the use of computers. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	CS	
BIO	423	Population and Community Ecology	Organization and dynamics of population and communities, emphasizing animals. Theoretical and empirical approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO 320 or LSC 320 with C or better
BIO	440	Functional Genomics	Covers emerging fields of genomics and proteomics. Discusses key technologies and their applications to the study of genomes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
BIO	443	Applied Molecular Genetics and Genomics	Nature and function of the gene; emphasizes the molecular genetic disease states; molecular biology; regulation of gene expression; genomics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: LSC 347 with C or better; CHM 233 or 331 with C or better; CHM 237 or 335 with C or better
BIO	453	Animal Histology	Microscopic study of animal tissues. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		
BIO	471	Ornithology	Biology of birds. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
BIO	473	Ichthyology	Systematics and biology of recent and extinct fishes. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
BIO	474	Herpetology	Classification, structure, habits, ecology and distribution of reptiles and amphibians, emphasizing North American forms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		
BIO	480	Methods of Teaching Biology	Methods of instruction, experimentation, organization, and presentation of appropriate content in biology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
BIO	393	Careers in Natural and Health Sciences	This seminar course is designed to provide students with proficiency in analyzing career options and to help students explore the full range of careers that are open to those who major at the undergraduate level in the natural sciences. The course will include short presentations by professionals in a variety of fields, including environmental biology, biotechnology, business, education, and various health sciences. There will be ample opportunities for questions and personal interactions.	N	LEC	N	YGB	New Interdis Arts & Sciences	School of Life Sciences	1.		Pre-requisites: BIO 188 or BIO 182; Minimum 45 hours
BIO	100	The Living World	Principles of biology. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	

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BIO	187	General Biology I	Biological concepts emphasizing principles and the interplay of structure and function at the organismal, population, and community levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	188	General Biology II	Biological concepts emphasizing principles and the interplay of structure and function at the molecular, cellular, and organismal levels. Intended for life sciences, biology, and health-related science majors. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
BIO	201	Human Anatomy and Physiology I	Studies the structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SG	
BIO	202	Human Anatomy and Physiology II	Studies the structure and function of the human body. Topics include cardiovascular, respiratory, lymphatic/immune, endocrine, renal, digestive, and reproductive systems. Cannot be used for major credit in the life sciences. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		
BIO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	301	Foundations of Interdisciplinary Studies	Introduces concepts and methods of interdisciplinary study by critically examining anticipated 21st-century workplace and civic trends.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; Activation of BIS eligibility student group by a BIS advisor
BIS	301	Foundations of Interdisciplinary Studies	Introduces concepts and methods of interdisciplinary study by critically examining anticipated 21st-century workplace and civic trends.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; Activation of BIS eligibility student group by a BIS advisor
BIS	302	Interdisciplinary Inquiry	Explores interdisciplinarity and integration as applied to various approaches of human inquiry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; BIS 301 with a grade of C or better
BIS	302	Interdisciplinary Inquiry	Explores interdisciplinarity and integration as applied to various approaches of human inquiry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies students; minimum cumulative GPA of 2.00; BIS 301 with a grade of C or better
BIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	401	Applied Interdisciplinary Studies	Applies interdisciplinary problem-solving skills in internships, service-learning, or research; may involve individual or group projects combining both concentrations.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	401	Applied Interdisciplinary Studies	Applies interdisciplinary problem-solving skills in internships, service-learning, or research; may involve individual or group projects combining both concentrations.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	402	Senior Seminar	Capstone course helps integrate classroom and experiential learning. Students choose among course topics that address their interests.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	402	Senior Seminar	Capstone course helps integrate classroom and experiential learning. Students choose among course topics that address their interests.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Interdisciplinary Studies student; Minimum 2.0 GPA; BIS 301 with C or better; BIS 302 with C or better
BIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
BIS	493	Honors Thesis		N	THE	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
BIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
BIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		
BIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	514	Bilingual/Multicult-Spec Educ	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	515	Instructional Methods for Bilingual Students	Introduces general dual language teaching approaches. Focuses on the effective teaching of limited English proficient populations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	521	Primary/Elementary Communication Arts in Bilingual Education	Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis)	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

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BLE	524	Secondary Sheltered ESL Content Teaching	Teaching and assessing ESL adolescents in the content areas with an emphasis on integrating language acquisition principles with content learning.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	526	SEI for Elementary Schools	Prepares elementary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	527	SEI for Middle and Secondary Schools	Prepares middle and secondary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	528	Social Studies for Bilingual/ESL Teachers	Provides language and instructional methodologies and assessment strategies relevant to bilingual/multicultural students in social studies content delivered in Spanish and English.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	529	Language Assessment and Evaluation of ESL/BLE Students	Assessment and evaluation of linguistic minorities; test theory, score interpretation; culturally responsive assessment; assessment of language and school achievement.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
BLE	533	Literacy in Secondary BLE/ESL Settings	Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	537	Language Structure Aquisition	Introduces linguistics and language acquisition. Grammatical theory; language use in educational contexts; first, second, and simultaneous language acquisition.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Credit is allowed for only BLE 537 or LIN 510
BLE	541	Nature of Bilingualism/Second-Language Acquisition	Bilingual and second-language acquisition, with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	543	Bilingual Education Models	Bilingual education programs in other countries; analysis of political, social, economic, and educational implications; practice in planning bilingual education curricula. See also offerings under MCE, SED, SPE, and SPF.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	565	Literature for Latina and Latino Children and Adolescents	Selects, analyzes, and utilizes literature for Latino/a and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

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BLE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BLE	510	Foundations of Structured English Immersion	Prepares teachers for linguistically diverse classrooms, including Structured English Immersion knowledge to meet the Augmented Provisional SEI Endorsement: ELL Proficiency Standards, Assessment Objectives, Foundations of SEI and SEI strategies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	511	Introduction to Language Minority Education	Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	520	ESL for Children	Examines approaches to second-language development for children congruent with recent research in second-language acquisition in children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis)	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		
BLE	522-W	Literacy/Biliteracy Development	Examines approaches to first- and second-language reading and writing for bilingual/second-language learners from a whole language perspective (Spanish-English emphasis).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	527	SEI for Middle and Secondary Schools	Prepares middle and secondary teachers and administrators in the areas required for Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	535	Sociolinguistic Issues in Bilingual Education	Surveys major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	541	Nature of Bilingualism/Second-Language Acquisition	Bilingual and second-language acquisition, with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	561	Parent Involvement in Language Minority Education Programs	Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	578	Student Teaching in the Elementary School	Supervised teaching in the area of specialization. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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BLE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BLE	220	Foundations of Structured English Immersion	Examines current educational practices and historical legal issues. Prepares teacher candidates with a provisional Structured English Immersion endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	321	ESL Methods for Diverse Language Classrooms	Strategies and materials for second-language learning, including research on language acquisition/learning, practical applications of ESL methodologies, phonics.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	322	Reading Methods in BLE/ESL Settings	Instructional/assessment strategies, including systematic, research-based phonics, vocabulary, comprehension, spelling, writing, phonemic writing in Spanish/English.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	324	Social Studies for Diverse Language Classrooms	Social studies education standards, curriculum, and instructional strategies for English language learners.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	335	Language Diversity in Classrooms	Issues in sociolinguistics and language variation in schools with a focus on classroom interaction, instruction, curriculum, assessment, and language policy.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	396	Field Experience I	Applies course content in a bilingual/ESL school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	397	Field Experience II		N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	400	Principles of Language Minority Education	Overview of philosophical and theoretical foundations of bilingual education and ESL models of instruction. Other topics include significant legislative and judicial measures.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	407	SEI for Secondary Students	Examines foundations, assessment, English language learner proficiency standards, and strategies (including SEI) for the 7-12 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	408	SEI for Linguistically Diverse Learners	Examines foundations, assessment, English language learner proficiency standards, and strategies (including SEI) for the K-8 classroom.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	411	Science Curriculum, Instruction and Assessment in BLE/ESL Settings	Methods, management strategies, and assessment procedures for teaching science to BLE/ESL students in elementary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	412	Mathematics Curriculum, Instruction and Assessment in BLE/ESL Settings	Teaching, management, and assessment of mathematics in K-8 BLE/ESL settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	413	Language Arts in BLE/ESL Settings	Literacy and language arts instruction; assessment of reading and writing; transition literacy skills, particularly critical reading of content.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	414	Reading Methods, Management, and Assessment in BLE/ESL Settings	Teaching and assessing reading with emphasis on integrated curriculum and literature-based instruction for BLE/ESL learners. Strategies for decoding (phonics), vocabulary, comprehension, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
BLE	414-W	Bilingual/ESL Curriculum and Organization	ESL curriculum content and organization, including program model effectiveness, language assessment and language usage, special needs and parent involvement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	433	Language Arts Methods, Management, and Assessment in Elementary BLE/ESL Settings	Social nature of oral and written, first- and second-language acquisition and congruent teaching, management, assessment practices in BLE/ESL settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	455	Social Studies Methods, Management, and Assessment in Elementary BLE/ESL Settings	Examines methods, classroom management strategies, and assessment techniques for social studies instruction in elementary BLE/ESL classes.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	470	Student Teaching Seminar	Concurrent course with the student teaching experience that provides support, content, and critical evaluation opportunities directly related to teaching practices.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Admission to Professional Teacher Preparation Program

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BLE	478	Student Teaching in Diverse Language Classrooms	Student teaching in diverse language classrooms. Focuses on use of English language learning and bilingual strategies; integrates all previous course work. Synthesized experience in curriculum instruction and classroom management in a BLE/ESL setting. Fee.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	479	Capstone Seminar in Bilingual/ESL Education	Reflective, experience-based integration of theory and practice; professional development for bilingual/ESL teachers.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	481	Reading Practicum	Applies concepts from BLE 414. Supervised school-based experiences in teaching reading to BLE/ESL students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
BLE	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
BLE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
BLE	496	Field Experience III	Applies course content in a bilingual/ESL school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		Pre-requisites: Admission to Professional Teacher Preparation Program
BLE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
BLE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BME	100	Introduction to Bioengineering	Introduces profession of bioengineering: bioengineering design process, teaming, computer models in bioengineering, communications skills, career planning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	2.		Pre-requisites: Bioengineering and Pre-Med Engineering student; Pre/Co-requisite: ENG 101, 105, or 107 with C or better
BME	111	Engineering Perspectives on Biological Systems	Biological concepts for the emerging engineer. Introduces biological and earth systems engineering, materials, structures, fluid mechanics, bioelectricity, and the dynamic, nonlinear nature of nature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisite: Engineering student
BME	112	Engineering Perspectives on Biological Systems Laboratory	Introduces biological concepts for the emerging engineer in a lab setting: biological and earth systems engineering, materials, structures, fluid mechanics, bioelectricity, and the dynamic, nonlinear nature of nature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		Pre-requisite: Engineering student
BME	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	200	Conservation Principles in Bioengineering	Applies bioengineering analysis and problem solving of mass, energy, and charge balances to medical and biological systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: CHM 114 or CHM 116 completed with C or better; PHY 131/132 with a C or better; BIO 188(or BME 111/112) with a C or better; Co-requisite:MAT 275
BME	202	Global Awareness within Biomedical Engineering Design	Introduces ethical, legal, social, economic, and technical issues arising from the design and implementation of bioengineering technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.	L or HU	Pre-requisites: Engineering students OR have a minimum cumulative GPA of 2.50; ENG 102, 105 or 108 completed with a grade of C or greater or be currently enrolled; ECN 111 or ECN 112 AND either ECE 100, 106 or 194 completed with a grade of D or greater
BME	235	Physiology for Engineers	Physiology of the nervous, muscular, cardiovascular, endocrine, renal, and respiratory systems. Emphasizes use of quantitative methods in understanding physiological systems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Bioengineering or Pre-Med Engineering student; BIO 188 (or BME 111 and BME 112) with C or better, CHM 114 or CHM 116 with C or better; Pre/Co-requisite: PHY 131 and PHY 132.
BME	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6		
BME	300	Bioengineering Product Design	The fundamentals of financial and organizational structure of business and how it influences bioengineering analysis, design, and decision making; biomedical ethics and device and drug regulation; and fundamentals of business and technical management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE Junior, Senior or Post-Bac; BME 100 with C or better; ENG 102, 105 or 108 with C or better
BME	318	Biomaterials	Material properties of natural and artificial biomaterials. Tissue and blood biocompatibility. Uses of materials to replace body parts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE student; BME 235 with a C or better

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BME	331	Bioengineering Transport Phenomena	Transport phenomena with emphasis on momentum, energy, and mass transport in living systems, medical devices, and other therapeutic/diagnostic applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS/BSE student; MAE 212, MAT 275 (or MAT 274), CHM 341, and BME 200 with C or better
BME	350	Signals and Systems for Bioengineers	Applies principles of calculus and ordinary differential equations to analysis and computer processing of biosignals and linear modeling of biosystems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Engineering BSE/BS student; EEE 202 with C or better; MAT 274 or MAT 275 with C or better; Pre/Co-requisite: MAT 343
BME	370	Microcomputer Applications in Bioengineering	Uses microcomputers for real-time data collection, analysis, and control of experiments involving actual and simulated physiological systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Engineering BS or BSE student; BME 235 with C or better; BME 350 with a C or better
BME	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	411	Biomedical Engineering I	Reviews diagnostic and prosthetic methods using engineering methodology. Introduces transport, metabolic, and autoregulatory processes in the human body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BSE/BS students; Minimum GPA of 2.50; BME 334 with C or better
BME	412	Biomedical Engineering II	Reviews electrophysiology and nerve pacing applications. Introduces biomechanics and joint/limb replacement technology, cardiovascular and pulmonary fluid mechanics, and the application of mathematical modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BSE/BS students; Minimum cumulative GPA of 2.50
BME	413	Biomedical Instrumentation	Principles of medical instrumentation. Studies of medical diagnostic instruments and techniques for the measurement of physiologic variables in living systems. Both BME 413 and BME 423 need to be taken together to secure L General Studies credit.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.	L	Pre-requisites: Engineering BS or BSE student; BME 370, BME 235 with C or better
BME	415	Biomedical Transport Processes	Principles of momentum, heat, and mass transport with applications to medical and biological systems and medical device design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.0; MAT 274 with a D or better or currently enrolled; PHY 116 or PHY 131 with a D or better or currently enrolled in PHY 131 OR Graduate Engineering student
BME	416	Biomechanics	Mechanical properties of bone, muscle, and soft tissue. Static and dynamic analysis of human movement tasks such as locomotion.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Bioengineering or Pre-Med Engineering BSE student; BME 318 and MAE 212 with C or better
BME	417	Biomedical Engineering Capstone Design I	Technical, regulatory, economic, legal, social, and ethical aspects of medical device systems engineering design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.	L	Pre-requisite: BME 318; BME 331; BME 370; IEE 380; BME 300 with C or better; Pre/Co-requisite: BME 413
BME	419	Biocontrol Systems	Applies linear and nonlinear control systems techniques to analysis of neuromusculoskeletal, cardiovascular, thermal, and mass transfer systems of the body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS or BSE student; BME 350 and BME 370 with C or better
BME	423	Biomedical Instrumentation Laboratory	Lab experience with problems, concepts, and techniques of biomedical instrumentation in static and dynamic environments. Both BME 413 and BME 423 need to be taken together to secure L General Studies credit. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.	L	Pre-requisites: BS/BSE Engineering, pre-requisite or co-requisite: BME 413
BME	434	Applications of Bioengineering Transport Phenomena	Develops mathematical models of transport phenomena in physiological systems, medical devices, and pharmacokinetic analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Engineering BS or BSE student; BME 331 with C or better
BME	451	Cell Biotechnology Laboratory	Mammalian cell culture techniques, including mouse embryonic stem cells, the use of bioreactors, cell fractionation, and digital video imaging.	N	LEL	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: BIO 353 (or MBB 245) with C or better; Students who have credit for BME 451, may not enroll in BIO 451
BME	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	490	Biomedical Engineering Capstone Design II	Individual projects in medical systems or medical device design and development. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	4.		Pre-requisites: Engineering BS or BSE student; BME 417 with C or better
BME	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6		
BME	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-6	L	Pre-requisites: Must be an Honors student
BME	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		
BME	496	Professional Seminar	Professional and ethical aspects with a discussion of responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-7		Pre-requisite: Bioengineering or Pre-Med Engineering BS or BSE student
BME	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-3		
BME	511	Biomedical Engineering I	Diagnostic and prosthetic methods using engineering methodology. Transport, metabolic, and autoregulatory processes in the body.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only

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BME	512	Biomedical Engineering II	Electrophysiology and nerve pacing applications. Introduces biomechanics and joint/limb replacement, technology, cardiovascular and pulmonary fluid mechanics, and mathematical modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	513	Biomedical Instrumentation	Principles of medical instrumentation. Studies of medical diagnostic instruments and techniques for the measurement of physiologic variables in living systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	514	Advanced Biomedical Instrumentation	Principles of applied biophysical measurements using bioelectric and radiological approach.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	515	Biomedical Transport Processes	Principles of momentum, heat, and mass transport with applications to medical and biological systems and medical device design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	516	Topics in Biomechanics	Mechanical properties of bone, muscle, and soft tissue. Static and dynamic analysis of human movement tasks, including in-depth project.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	518	Introduction to Biomaterials	Topics include structure property relationships for synthetic and natural biomaterials, biocompatibility, and uses of materials to replace body parts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	519	Topics in Biocontrol Systems	Linear and nonlinear control systems analysis of neuromusculoskeletal, cardiovascular, thermal, and mass transfer systems of the body, including in-depth project.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		Pre-requisites: Graduate Engineering students only
BME	520	Bioelectric Phenomena	Study of the origin, propagation, and interactions of bioelectricity in living things; volume conductor problem, mathematical analysis of bioelectric interactions, and uses in medical diagnostics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	521	Neuromuscular Control Systems	Overview of sensorimotor brain structures. Application of nonlinear, adaptive, optimal, and supervisory control theory to eye-head-hand coordination and locomotion.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	522	Biosensor Design and Application	Theory and principles of biosensor design and application in medicine and biology. Principles of measurements with biosensors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	523	Physiological Instrumentation Lab	Lab experience with problems, concepts, and techniques of biomedical instrumentation in static and dynamic environments.	N	LAB	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		Pre-requisites: Graduate Engineering students only
BME	524	Fundamentals of Applied Neural Control	Fundamental concepts of electrical stimulation and recording in the nervous system with the goal of functional control restoration.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	525	Surgical Techniques	Principles of surgical techniques, standard operative procedures, federal regulations, guidelines, and state-of-the-art methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	2.		Pre-requisites: Graduate Engineering students only
BME	532	Prosthetic and Rehabilitation Engineering	Analysis and critical assessment of design and control strategies for state-of-the-art medical devices used in rehabilitation engineering.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	533	Transport Processes I	Unified treatment of momentum, heat, and mass transfer from molecular theory, and continuum points of view. Continuum equations of microscopic and macroscopic systems and multicomponent and multiphase systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	534	Transport Processes II	Continuation of BME 533 or CHE 533, emphasizing mass transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	543	Thermodynamics of Chemical Systems	Classical and statistical thermodynamics of nonideal physicochemical systems and processes; prediction of optimum operating conditions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	544	Chemical Reactor Engineering	Reaction rates, thermodynamics, and transport principles applied to the design and operation of chemical reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	551	Movement Biomechanics	Mechanics applied to the analysis and modeling of physiological movements. Computational modeling of muscles, tendons, joints, and the skeletal system with application to sports and rehabilitation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	566	Medical Imaging Instrumentation	Design and analysis of imaging systems and nuclear devices for medical diagnosis, therapy, and research. Lab experiments using diagnostic radiology, fluoroscopy, ultrasound, and CAT scanning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	568	Medical Imaging	CT, SPECT, PET, and MRI. 3-D in vivo measurements. Instrument design, physiological modeling, clinical protocols, reconstruction algorithms, and quantitation issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	3.		
BME	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		

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BME	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-4		Pre-requisites: Graduate Bioengineering students only
BME	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-12		
BME	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-15		
BME	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Harrington Bioengineering Program	1.		
BME	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Harrington Bioengineering Program	1-15		
BMI	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		
BMI	501	Introduction to Biomedical Informatics	Overview of the field of biomedical informatics for use of computers and information in healthcare and the biomedical sciences.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	502	Foundations of Biomedical Informatics Methods I	First semester of a two-semester course surveying the methods and theories underlying the field of biomedical informatics.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	505	Foundations of Biomedical Informatics Methods II	Second semester of a two-semester course surveying the methods and theories underlying the field of biomedical informatics.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: BMI 502 with a C or better; admission to a graduate program in the School of Computing and Informatics
BMI	511	Decision Support and Evidence-Based Practice	Biomedical decision making and the tools and techniques for decision support, including artificial intelligence and machine learning techniques.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		
BMI	515	Advanced Biostatistical Methods	Understanding biomedical data; how to use statistical methods and software to correctly analyze biomedical data.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	516	Advanced Biomedical Data Analysis	Acquisition, conversion and organization of biological data into relevant diagnostic, therapeutic, and research information using information extraction and data mining.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: BMI 501 with C or better, and admission to any SCI graduate program
BMI	520	Modeling Gene Regulatory Networks	Computational and mathematical modeling used to approximate gene regulatory networks as well as signaling pathways and inference of model parameters.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: BMI 505 and BMI 516 with C or better, and admission to any SCI graduate program
BMI	540	Problem Solving in Biomedical Informatics	Theory and practice of software engineering principles as they apply to large- and medium-scale clinical systems from bench to bedside.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisite: BMI 501 with C or better, and admission to any SCI graduate program
BMI	541	Cognition and Decision Making in Healthcare	Conceptual and methodological issues in cognitive science and medical informatics, including design and use of technology in medical settings.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: Admission to any SCI graduate program
BMI	555	Medical Information Management	Database theory and information management systems with applications to biomedical domain, including use of databases in the Web context.	N	LEC	N	OPT	Graduate College	Biomedical Informatics Program	3.		Pre-requisites: CSE 412 with D or better, and admission to any SCI graduate program

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BMI	560	Teaching in Biomedical Informatics	Student serves as a teaching assistant with a faculty member who is teaching either a required or elective course in the Biomedical Informatics curriculum. Such courses will generally be BMI courses but with the approval of the student's faculty program advisor may include a course that is an approved elective in the BMI program but is offered in another department within the university. The experience provides a significant teaching role, either lecturing or moderating small group sessions or laboratories. Grading class homework assignments and designing/grading examinations will also typically be part of the experience. Assisting other students outside of class and being available during office hours will also generally be part of the student teacher's role. A student may also receive 1 hour of credit for participating substantively in the design of a new course, working closely with a faculty member. Generally in such circumstances the student should then serve as course teaching assistant when it is offered for the first time (separate enrollment in this course).	N	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1.		Pre-requisite: Biomedical Informatics PhD student
BMI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		Pre-requisite: BMI Graduate student
BMI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Biomedical Informatics Program	1-12		
BMI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	GNA	Graduate College	Biomedical Informatics Program	1-12		Pre-requisite: Biomedical Informatics Masters student
BMI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		Pre-requisites: Admission to any SCI graduate program
BMI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Graduate College	Biomedical Informatics Program	1-12		
BMI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Graduate College	Biomedical Informatics Program	1-12		
BMI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Graduate College	Biomedical Informatics Program	1.		
BMI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1-4		Pre-requisites: Admission to any SCI graduate program
BMI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Biomedical Informatics Program	1-12		Pre-requisite: Biomedical Informatics Masters student
BMI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Graduate College	Biomedical Informatics Program	1-12		
BMI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	OPT	Graduate College	Biomedical Informatics Program	1-15		
BMI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Graduate College	Biomedical Informatics Program	1-15		
BMI	101	Introduction to Bioinformatics	Introduces existing and future applications of biomedical informatics. Overview of history and present state of the field. Introduces topics in translational bioinformatics, such as sequence alignment, the Human Genome Project, gene expression analysis, genome-wide association studies, next-generation sequencing.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	102	Introduction to Public Health/Imaging Informatics	Introduces existing and future applications of biomedical informatics. Overview of history and present state of the field. Second course in a three-semester series focusing on biomedical informatics applications in public health, including population studies and outbreak detection, and medical imaging, including telemedicine.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		Pre-requisite: BMI 101 with B or better

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BMI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	Biomedical Informatics Program	1-4		
BMI	201	Introduction to Clinical Informatics	Introduces existing and future applications of biomedical informatics. Overview of history and present state of the field. Provides an introduction to biomedical informatics techniques and applications used in clinical environments. Includes searching and organizing free text information, decision analysis techniques and clinical decision support systems, and clinical applications including physician order entry used in electronic medical records. Also covers challenges in clinical informatics, including sociotechnical and cognitive issues in implementation and use.	N	LEC	N	GRD	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	211	Modeling Biomedical Decisions	First semester of a three-semester course sequence surveying the methods and theories underlying the field of biomedical informatics. Explores models of medical decision making, including classical decision theory, Bayesian, and cognitive models. Also includes a component discussing evaluation methods in biomedical informatics.	N	PRA	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	221	Knowledge Representation for Biomedical Informatics	Introduces topics in knowledge representation and modeling, including frame-based systems, logic-based systems, rule-based systems, inference, and reasoning. Overview of history and present state of the field.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	301	Clinical Environments	Designed for medical informatics students who have no significant clinical experience in the U.S. Introduces medical terminology and exposes students to the clinical environments in which health care providers create, manage, and use clinical information. Students attend lectures and spend a significant portion of time examining and reporting on different clinical settings throughout the semester.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	311	Modeling Biomedical Knowledge	Introduces concepts of artificial intelligence and knowledge modeling using medical informatics examples. Historical foundations and motivations of AI in medical applications; problem solving, reasoning, knowledge management, and planning as applied to medical informatics problems.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	312	Modeling Biomedical Data	Third semester of a three-semester course surveying the methods and theories underlying the field of biomedical informatics. Explores methods of use in the design and maintenance of biomedical databases, machine learning techniques, information retrieval in biomedicine and other methods specific to bioinformatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	330	Topics in Translational Bioinformatics	Provides an introduction to bioinformatics methods and applications used in the field of translational medicine research. Topics include bioinformatics data acquisition and management, including microarrays, database modeling and integration; analysis methodologies, including statistics and data mining; and applications.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	332	Team Dynamics for Healthcare IT Projects	Teaches the fundamentals of leadership, management, and team dynamics in a project-focused software engineering environment, and with a focus on informatics and healthcare applications. Teaches students about team and group dynamics, recognizing dysfunctional teams, and helping to fostering productive group and leadership skills.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	461	Advanced Topics in Biomedical Informatics I	Covers current trends and cutting-edge research areas of clinical, public health, and consumer health informatics. Particular emphasis on research that is of relevance to patients, and the healthy public, covering such topics as outbreak detection and the personal health record. Also covers research on the use of technology in medical education, and the ways in which clinical decision support systems are applied in contemporary medical practice.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	462	Advanced Topics In Biomedical Informatics II	Covers current trends and cutting-edge research areas of bioinformatics, imaging informatics, and translational science. Emphasizes informatics approaches to the novel data sources that are supplied by the next generation of methods for affordable gene sequencing, and initiatives underway to accelerate the integration of novel research findings into everyday clinical practice. Includes a series on modeling and simulation, current approaches to computer-aided diagnosis of medical images, ways in which technology can support the discovery of new knowledge, and the application of telemedicine to remotely facilitate clinical care.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	465	Introduction to Comparative Genomics	Explores genomic sequences and hypotheses for their structure, evolutionary history, and underlying mechanisms.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	466	Bioinformatics and Molecular Evolution	Fundamental biological motivation and methods used in bioinformatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		Pre-requisites: BJO 345 and 355 (or MBB 355, or MAT 355) with C or better

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BMI	482	Capstone I	First course in capstone sequence for biomedical informatics majors emphasizing the development of technical skills and effective team work within the context of a research project in biomedical informatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		
BMI	483	Capstone II	Second course in capstone sequence for biomedical informatics majors emphasizing the development of technical skills and effective team work within the context of an applied project in biomedical informatics.	N	LEC	N	OPT	School of Letters & Sciences	Biomedical Informatics Program	3.		Pre-requisite: BMI 482 with C or better
BMI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	Biomedical Informatics Program	1-4		
BUA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	300	Career Management	Provides professional program business administration students with information on ASU business-related courses, business careers, interviewing, job hunting, and résumé skills.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	1.		
BUA	330	Organizational Leadership	Strategies, skills, and techniques that promote successful leadership within organizations. Practice leadership skills and self-discovery in preparation for leadership positions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
BUA	380	Small Business Leadership	Develops leadership skills needed to form, lead, and operate a small business. Emphasizes creating a vision, research, and problem solving.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Non-business student with a minimum ASU cumulative GPA of 2.00 and a minimum of 56 earned hours, OR Non-degree or Graduate student.
BUA	381	Small Business Accounting and Finance	Accounting and finance skills needed by small business owners to acquire, allocate, and track monetary resources and evaluate performance.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Non-business student with a minimum ASU cumulative GPA of 2.00 and a minimum of 56 earned hours, OR Non-degree or Graduate student.
BUA	382	Small Business Sales and Market Development	Building and maintaining customers, developing a market identity and a niche, and the importance of sales.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Non-business student with a minimum ASU cumulative GPA of 2.00 and a minimum of 56 earned hours, OR Non-degree or Graduate student.
BUA	383	Small Business Working Relationships	Addresses communication and the people in a business--clients, employees, suppliers, competitors, governments, family, and self development.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Non-business student with a minimum ASU cumulative GPA of 2.00 and a minimum of 56 earned hours, OR Non-degree or Graduate student.
BUA	384	Small Business Operations and Planning	Planning and executing plans--the what, when, where, how, and who from product/service/project idea to pay back or completion.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Non-business student with a minimum ASU cumulative GPA of 2.00 and a minimum of 56 earned hours, OR Non-degree or Graduate student.
BUA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	440	Strategic Management	Strategic formulation and administration of the total organization, including integrative analysis and strategic plan; interrelationship of business functional areas.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BS or BA student and minimum 87 earned hours and FIN 300, MGT 300, MKT 300, SCM 300 with a C or better. May not enroll if completed AGB 414 or BUA 441 with a C or better.
BUA	441	Entrepreneurship and Feasibility	Assessment of the opportunities, risks, and challenges associated with business start-up and continued operation.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BS or BA student and minimum 87 earned hours and FIN 300, MGT 300, MKT 300, SCM 300 with a C or better. May not enroll if completed AGB 414 or BUA 440 with a C or better.
BUA	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-6	L	Pre-requisites: Must be an Honors student
BUA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
BUA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-7		
BUA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-12		
BUE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
BUE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
BUE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BUE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
BUE	502	Organization and Management of Cooperative Programs	Work-study programs for business occupations in high schools and community colleges.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
BUE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
BUE	480	Teaching Business Subjects	Organization and presentation of appropriate content for business subjects in the secondary school.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BUE	481	Technology in Business and Vocational Education	Emerging curricula and instructional technology in business and vocational education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
BUE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisites: Admission to Professional Teacher Preparation Program
BUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
BUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
BUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
BUS	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
BUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-7		
BUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
BUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	0.5-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	0.5-12		
BUS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
BUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
BUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
BUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisite: W.P. Carey Degree-seeking Graduate student
BUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
BUS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
BUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
CBS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
CBS	520	Modeling and Computational Biology	Key mathematical and computational techniques for bioinformatics. Numerical and visualization software; scripting, database management.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		
CBS	521	Applications and Complex Problem Solving in Computational Biology	Continuation of CBS 520. Key mathematical concepts. Team solution of bioinformatics applications, project writing, and presentation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		Pre-requisite: CBS 520 with B or better
CBS	530	Introduction to Structural and Molecular Biology	Structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.		
CBS	540	Functional Genomics	Functional relevance of genomic sequences; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
CBS	572	Data Mining	Advanced data mining techniques: classification, clustering, association, preprocessing; performance evaluation; information assurance, Web mining, security and privacy issues, and other applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
CBS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		

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CBS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
CBS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
CBS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
CCS	300	Chicana and Chicano Culture and Society	Intensive analysis of how Mexican American writers, artists, film makers, entertainers, and academicians have interpreted aspects of the Chicana and Chicano experience.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
CCS	446	Teaching Chicana and Chicano Studies in the Schools	Approaches/techniques for infusion of Chicana and Chicano Studies content into elementary and secondary curriculum; designed for teachers who work with Chicana and Chicano students.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
CDE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Freshman Standing; Maximum 25 hours
CDE	232	Human Development	Lifespan development from conception through adulthood, with emphasis on family influences. Recognition of individuality within the universal pattern of development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
CDE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	337	Early Childhood Intervention	Explores how child development theory affects practice with children and families, emphasizing development of young children and early intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	338	Child Development Practicum	Supervised practicum in the Child Development Lab preparing students for work in child care centers and agencies serving young children and families. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	2-4		
CDE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	430	Infant/Toddler Development in the Family	Examines the development of infants/toddlers, the socialization processes of families, and the interactions of these processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
CDE	437	Infant Family Assessment and Observation	Examines strategies for implementing developmental assessments and observations of young children and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
CDE	444	Risk and Variation in Child Development	Impact that constitutional and environmental risk factors have on young children and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
CDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
CDE	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
CDE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		

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CDE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
CDE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	531	Theoretical Issues in Child Development	Major developmental theories, related research, and their application to family interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	533	Research Issues in Child Development	In-depth exploration and critique of research focusing on child development in a family setting.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
CDE	534	Risk and Resilience in Children and Adolescents	Integrates child development, family theory, and research to understand risk and resilience in children and adolescents.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: CDE 531; FAS 500
CDE	570	Child Development for Infant Family Practice	Examines development during infancy and early childhood with an emphasis on social and emotional development, mental health, and early parent-child relationships.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	571	Infant Mental Health for Infant Family Practice	Surveys the biological and environmental risk factors that jeopardize the mental health of infants and young children; overview of prevention and intervention strategies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	572	Assessment of Infants, Toddlers, and Families for Infant Family Practice	Developmentally appropriate assessment of mental disorders and developmental disabilities in infants, toddlers, and preschool children and parent-child relationships.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	573	Cultural Competence for Infant Family Practice	Examines cultural issues impacting parent-child relationships and child rearing and the effectiveness of infant mental health and early intervention services on families of various ethnic and cultural backgrounds.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	574	Observation and Reflection for Infant-Family Practice	Strategies for observing infant behavior and parent-child relationships and skills for reflective, relationship-based intervention.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	575	Advanced Observation and Reflection for Infant-Family Practice	Advanced strategies for observing infant behavior and parent-child relationships and skills for reflective relationship-based intervention.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	576	Applied Research Methods for Infant Family Practice	Survey and critical examination of child development, parent-child relationships, family relationships, and early intervention research and the application to IFP.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-IFP student
CDE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
CDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CDE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	610	Gender Development	Examines current theories and research concerning the various aspects of gender and developmental change.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
CDE	612	Children's Peer Relationships	Studies scientific theory, research, and evidence on peer relationships and social competence from early childhood through adolescence.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: CDE 531 with C or better
CDE	634	Prevention and Child Development	Advanced training in research and theory-based approaches to developing and evaluating prevention programs for children at risk.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Prerequisite: CDE 534
CDE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
CDE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	THE	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
CDE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
CDE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
CDE	232	Human Development	Lifespan development from conception through adulthood, with emphasis on family influences. Recognition of individuality within the universal pattern of development.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
CED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
CED	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	250	Career Development	Covers models of the individual, the world of work, and decision making with emphasis on individual application.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	L	
CED	294	Special Topic	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	L	Pre-requisites: Must be an Honors student
CED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
CED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-7		
CED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
CED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	512	Introduction to Helping Relationships	Introduces the skills used in the helping professions and examines the settings in which they occur.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CED	522	Theories of Counseling and Psychotherapy	Presents major theories of psychological intervention as well as underlying personality theory upon which they are based.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	523	Psychological Tests	Standardized tests in the study of the individual, with emphasis on test score interpretation in counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	525	Educational Evaluation	Procedures for evaluating educational programs, training systems, and new-technology applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: COE 501
CED	527	Prevention and Consultation	Community focus with emphasis on outreach, prevention, psychoeducation, consulting, and advocacy from a systematic multicultural perspective.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	528	School Counseling	Introduces counseling within multicultural settings. Emphasizes counseling, consultation, and coordination skills needed for schools' comprehensive developmental guidance programs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	529	Lifespan Human Development	Issues and models of human development as it occurs across the lifespan.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CED	534	Occupations and Careers	The world of work, career development, education, and training for occupational entry and mobility.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	545	Analysis of the Individual	Theory and methods commonly used in studying the individual. Observational methods, diagnostic interviews, structured, and semi-structured methods for assessing personality.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	567	Group Dynamics and Counseling	Group process factors, theory, and diversity issues determining effective interaction in small groups. Emphasis placed on lecturettes, self awareness, and experiential components.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CED	577	Counseling Prepracticum	Focus on racial, social, and cultural factors in the development of helping relationships through integration of cognitive and affective self-awareness with counseling skills.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling Psychology MC or PhD student
CED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	655	Student Development Programs in Higher Education	Emerging conceptual models of student development. Overview of student personnel and student affairs programs in community colleges, four-year colleges, and universities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: must be a graduate student (non-degree or degree seeking)

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CED	672	Marriage and Family Counseling	Introduces marriage and family counseling theories. Emphasizes a systems-communication model utilizing cocounseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Counseling Graduate student
CED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate student
CED	111	Exploration of Education	Education as an instrument in the development of the individual and society, and its significance as an American institution.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.	SB	
CEE	100	Introduction to Civil and Environmental Engineering	Introduces basics of civil and environmental engineering design, team work, ethics, communication and management skills, modeling, problem solving, computer applications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	2.		Pre-requisites: Civil Engineering students only
CEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		
CEE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	210	Engineering Mechanics I: Statics	Force systems, resultants, equilibrium, distributed forces, area moments, fluid statics, internal forces, friction, and stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 100 with C or better; MAT 266 (or MAT 271) with C or better; PHY 121 with C or better; PHY 122 with C or better
CEE	212	Engineering Mechanics II: Dynamics	Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 210 and MAT 275 (or MAT 274) completed with C or better
CEE	213	Introduction to Deformable Solids	Strain-displacement and stress-strain-temperature relations. Stresses and deformations due to axial, shear, torsional and bending moments. Buckling, stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: CEE 210 (or CEE 211) with C or better; MAT 274 (or MAT 275) with C or better
CEE	281	Surveying	Theory and fieldwork in construction and land surveys. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		

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CEE	300	Engineering Business Practice	Engineering economic principles, cost/benefit analysis, project financing and delivery, management of engineering design, business practices, ethical and professional responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	L	Pre-requisites: BSE Civil Engineering student; CEE 213 with C or better
CEE	312	Engrg Materials		N	LEC	N	CNV	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	2.		
CEE	321	Structural Analysis and Design	Statically determinate and indeterminate structures (trusses, beams, and frames) by classical and matrix methods. Introduces structural design. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 212 (or CEE 211) with C or better; CEE 213 with C or better; Pre- or Co-requisite: CEE 384 or MAE 384 (with C or better if completed)
CEE	341	Fluid Mechanics for Civil Engineers	Fundamental principles and methods of fluid mechanics forming the analytical basis for water resources engineering. Conduit and open channel flow. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 212 (or CEE 211) and CEE 213 with C or better; Pre- or Co-requisite: CEE 384 or MAE 384 (C or better if completed)
CEE	351	Geotechnical Engineering	Index properties and engineering characteristics of soils. Compaction, permeability and seepage, compressibility and settlement, and shear strength. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering student; CEE 213 with C or better
CEE	353	Civil Engineering Materials	Structure and behavior of civil engineering materials, including steel, aggregate, concrete, masonry, asphalt, wood, composites. Atomic structure and engineering applications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: BSE Civil Engineering student; CEE 213 with C or better
CEE	361	Introduction to Environmental Engineering	Concepts of air and water pollution; environmental regulation, risk assessment, chemistry, water quality modeling, water and wastewater treatment systems designs. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: BSE Civil Engineering students; CEE 213 with a C or better; CHM 114 or CHM 116 with a D or better; Pre- or Co-requisite: IEE 380 with D or better if completed
CEE	372	Transportation Engineering	Fundamental background of highway and traffic engineering in the areas of planning, design, and operations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.		Pre-requisites: Civil Engineering BSE student; CEE 213 with C or better; Pre/Co-requisite: IEE 380
CEE	384	Numerical Methods for Engineers	Numerical methods and computational tools for selected problems in engineering. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	CS	Pre-requisites: Engineering BSE students; MAT 274 or MAT 275 & MAT 267 or MAT 272 (grade of C or better); MAT 267 or MAT 272 may be taken as a co-requisite. Credit for only CEE 384 or MAE 384
CEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	400	Earth Systems Engineering and Management	Introduces earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.	(L or HU) & H	Pre-requisites: Civil and Environmental Engineering BS or BSE student; CEE 300 with C or better OR Non-CEE Juniors or Seniors
CEE	412	Pavement Analysis and Design	Design of flexible and rigid pavements for highways and airports. Surface, base, and subgrade courses. Cost analysis and pavement selection. Credit is allowed for only CEE 412 or 511.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; completed CEE 351 and CEE 353 with a grade of C or greater
CEE	420	Steel Structures	Behavior of structural components and systems. Design of steel members and connections. Load and resistance factor design methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better
CEE	421	Concrete Structures	Behavior of concrete structures and the design of reinforced and prestressed concrete members, including footings. Partial design of concrete building system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better
CEE	423	Structural Design	Analysis and design of reinforced concrete steel, masonry, and timber structures. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 421 with C or better; Pre/Co-requisite: CEE 420 (with C or better if completed)
CEE	432	Developing Software for Engineering Applications	Matrix and computer applications to structural engineering and structural mechanics. Stiffness and flexibility methods, finite elements, and differences.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better; Credit is allowed for only CEE 432 or 532
CEE	440	Engineering Hydrology	Descriptive hydrology; hydrologic cycle, models, and systems. Rain-runoff models. Hydrologic design. Concepts, properties, and basic equations of groundwater flow.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 341 with a grade of C or greater
CEE	441	Water Resources Engineering	Applies the principles of hydraulics and hydrology to the engineering of water resources projects; design and operation of water resources systems; water quality.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 341 with C or better
CEE	452	Foundations	Applies soil mechanics to foundation and retaining wall systems, including bearing capacity, settlement, and lateral earth pressure.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 351 with C or better
CEE	462	Unit Operations in Environmental Engineering	Design and operation of unit processes for water and wastewater treatment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 361 with C or better
CEE	466	Urban Water System Design	Capacity; planning and design of water supply; domestic and storm drainage; and solid waste systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 341 and 361 with C or better
CEE	467	Environmental Microbiology	Overview of the microbiology of natural and human-impacted environment, microbial detection methodologies, waterborne disease outbreaks, risk assessment, and regulations. Credit is allowed for only CEE 467 or 567. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 361 or MIC 220 with a grade of C or greater
CEE	469	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 361 or CHE 334 with a C or greater
CEE	474	Transportation Systems Planning	Transportation systems modeling procedures, travel characteristics analysis, traffic predictions, transportation systems management, and transit planning methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 372 and 384 with C or better
CEE	475	Highway Geometric Design	Design of visible elements of roadway, design controls, at-grade intersections, freeways, and interchanges. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 372 with C or better; Credit is allowed for only CEE 475 or 576

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CEE	481	Civil Engineering Project Management	Civil engineering project management and administration, planning and scheduling, cost estimating and bidding strategies, financial management, quality control and safety, and computer applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE student; CEE 321 with C or better; CEE 351 with C or better; CEE 372 with C or better
CEE	483	Highway Materials, Construction, and Quality	Properties of highway materials, including aggregates, asphalt concrete, and portland cement concrete; construction practice; material delivery, placement, and compaction; quality control. Credit is allowed for only CEE 483 or 583.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 351 and CEE 372 and CEE 353 with a grade of C or greater
CEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	486	Integrated Civil Engineering Design	Requires completion of a civil engineering design in a simulated practicing engineering environment. Limited to undergraduates in their final semester.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	4.	L	Pre-requisites: Civil Engineering BSE students only; Must have completed CEE 321 and CEE 341 and CEE 351 and CEE 361 and CEE 372 with a grade of C or better
CEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-6		Pre-requisites: Honors students only
CEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-6	L	Pre-requisites: Engineering Honors students only
CEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		
CEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-7		
CEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		
CEE	511	Pavement Analysis and Design	Design of flexible and rigid pavements for highways and airports. Surface, base, and subgrade courses. Cost analysis and pavement selection. Credit is allowed for only CEE 511 or 412.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisites: Graduate Civil Engineering students only
CEE	512	Pavement Performance and Management	Pavement management systems, including data collection, evaluation, optimization, economic analysis, and computer applications for highway and airport design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Graduate Civil Engineering student
CEE	513	Pavement Evaluation, Maintenance, and Rehabilitation	Provides the necessary information for pavement engineers to evaluate, identify, and select reliable and cost-effective rehabilitation alternatives for existing Hot Mix Asphalt (HMA) and Portland Cement Concrete (PCC) pavements.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Must be a graduate student in Engineering
CEE	514	Bituminous Materials and Mixture	Types of bituminous materials used in pavement mixtures. Chemical composition, physical properties, desirable aggregate characteristics, optimum asphalt contents, superpave asphalt binder, mixture design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Graduate Civil Engineering student
CEE	515	Properties of Concrete	Materials science of concrete. Cement chemistry, mechanisms of hydration, interrelationships among micro- and macro-properties of cement-based materials. Mechanical properties, failure theories, fracture mechanics of concrete materials. Cement-based composite materials and the durability aspects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate tudent
CEE	516	Sustainable Energy and Material Use	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	521	Stress Analysis	Introduces tensors: kinematics, stress analysis, and constitutive assumptions leading to elastic and plastic behavior. Strain energy and energy methods; applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	522	Experimental Stress Analysis	Specification and analysis of stress and strain at a point, stress-strain relationships. Mechanical, optical, and electrical strain gages and circuits, digital data acquisition and analysis, closed loop mechanical testing, fracture mechanics, optical methods and photoelasticity, and introduction to nondestructive testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	524	Advanced Steel Structures	Strength properties of steel and their effects on structural behavior. Elastic design of steel structures. Plastic analysis and design of beams, frames, and bents. Plastic deflections. Plastic design requirements. Multistory buildings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	526	Finite Elements for Engineers	Direct stiffness, method of weighted residuals, weak formulation, and variational techniques in the solution of engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		Pre-requisite: Engineering CEE Graduate student
CEE	527	Advanced Concrete Structures	Ultimate strength design. Combined shear and torsion. Serviceability. Plastic analysis. Special systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student

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CEE	530	Prestressed Concrete	Materials and methods of prestressing. Analysis and design for flexure, shear, and torsion. Prestress losses due to friction, creep, shrinkage, and anchorage set. Statically indeterminate structures. Design of flat slabs, bridges, and composite beams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	532	Developing Software for Engineering Applications	Fundamentals of engineering software development and object-oriented programming. Programming in C++. Development of matrix toolbox. Introduces finite element method. Computer graphics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student; Credit is allowed for only CEE 432 or 532
CEE	533	Structural Optimization	Linear and nonlinear programming. Problem formulation. Design sensitivity analysis. FEM-based optimal design of structural and mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	536	Structural Dynamics	Free vibration and forced response of discrete and continuous systems, exact and approximate methods of solution, response spectra, computational techniques, special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	537	Topics in Structural Engineering	Advanced topics, including nonlinear structural analysis, experimental stress analysis, advanced finite elements, plasticity and viscoelasticity, composites, and damage mechanics.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-3		Pre-requisites: Engineering CEE Graduate Students Only
CEE	540	Groundwater Hydrology	Physical properties of aquifers, well pumping, subsurface flow modeling, unsaturated flow, numerical methods, land subsidence, and groundwater pollution.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	541	Surface Water Hydrology	Hydrologic cycle and mechanisms, including precipitation, evaporation, and transpiration; hydrograph analysis; flood routing; statistical methods in hydrology and hydrologic design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	543	Water Resources Systems	Theory and application of quantitative planning methodologies for the design and operation of water resources systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	544	Water Policy and Management	Covers water policy and management focused on Arizona. Useful to anyone looking for a general background on water issues in Arizona or considering a career in water resources and environmental engineering, planning, or public policy. Divided into three major sections: the history of water resources development and hydrology of Arizona; water management in Arizona; and an examination of current issues and controversies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		You may not enroll in CEE 544 if you have credit in SOS 551
CEE	546	Free Surface Hydraulics	Derivation of 1-D equations used in open channel flow analysis; computations for uniform and nonuniform flows, unsteady flow, and flood routing. Mathematical and physical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	547	Principles of River Engineering	Uses of rivers, study of watershed, and channel processes. Sediment sources, yield, and control; hydrologic analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	548	Sedimentation Engineering	Introduces the transportation of granular sedimentary materials by moving fluids. Degradation, aggregation, and local scour in alluvial channels. Mathematical and physical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	550	Soil Behavior	Physicochemical aspects of soil behavior, stabilization of soils, and engineering properties of soils.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	551	Advanced Geotechnical Testing	Odometer, triaxial (static and cyclic) back pressure saturated and unsaturated samples, pore pressure measurements, closed-loop computer-controlled testing, in-situ testing, and sampling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	553	Advanced Soil Mechanics	Applies theories of elasticity and plasticity to soils, theories of consolidation, failure theories, and response to static and dynamic loading.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	554	Shear Strength and Slope Stability	Shear strength of saturated and unsaturated soils strength-deformation relationships, time-dependent strength parameters, effects of sampling, and advanced slope stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	555	Advanced Foundations	Deep foundations, braced excavations, anchored bulkheads, reinforced earth, and underpinning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	556	Seepage and Earth Dams	Transient and steady-state fluid flow through soil, confined and unconfined flow, pore water pressures, and application to earth dams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	557	Geoenvironmental Engineering	Environmental site assessment, solid waste management, waste containment system design, soil and groundwater remediation, soil erosion control, brownfields development.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	558	Unsaturated Soil Mechanics	Advanced unsaturated soil mechanics theory, including introduction of stress-state variables and constitutive relationships for unsaturated flow and stress-strain applications. Knowledge of CEE 351 or equivalent material is required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Civil, Environmental, and Sustainable Engineering Graduate student
CEE	559	Earthquake Engineering	Characteristics of earthquake motions, selection of design earthquakes, site response analyses, seismic slope stability, and liquefaction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	560	Soil and Groundwater Remediation	Presents techniques for remediation of contaminated soils and groundwaters with basic engineering principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student

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CEE	561	Physical-Chemical Treatment of Water and Waste	Theory and design of physical and chemical processes for the treatment of water and wastewaters.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3-4		Pre-requisite: Engineering CEE Graduate student
CEE	562	Environmental Biochemistry and Waste Treatment	Theory and design of biological waste treatment systems. Pollution and environmental assimilation of wastes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3-4		Pre-requisite: Engineering CEE Graduate student
CEE	563	Environmental Chemistry Laboratory	Analyzes water, domestic and industrial wastes, lab procedures for pollution evaluation, and the control of water and waste treatment processes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	564	Contaminant Fate and Transport	Fate and transport processes with emphasis on governing equations and parameters relevant to the migration of chemicals in the environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	566	Industrial/Hazardous Waste Treatment	Emphasizes treatment of local industrial/hazardous waste problems, including solvent recovery and metals.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	567	Environmental Microbiology	Overview of the microbiology of natural and human-impacted environment, microbial detection methodologies, waterborne disease outbreaks, risk assessment, and regulations. Credit is allowed for only CEE 567 or 467.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	568	Unit Processing in Environmental Engineering	Design and operation of unit processes for water and wastewater treatment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	569	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CEE 569 or 469.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	573	Transportation Operations	Driver, vehicle, and roadway characteristics; traffic control devices; traffic engineering studies; and transportation system management measures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student
CEE	574	Highway Capacity	Highway capacity for all functional classes of highways. Traffic signalization, including traffic studies, warrants, cycle length, timing, phasing, and coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre Requisites: Engineering CEE Graduate Students Only
CEE	576	Highway Geometric Design	Design of visible elements of roadway, design controls, at-grade intersections, freeways, and interchanges.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		Pre-requisite: Engineering CEE Graduate student; Credit is allowed for only CEE 475 or 576
CEE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Engineering CEE Graduate student
CEE	581	Advanced Earth Systems Engineering and Management	Advanced introduction to earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	582	Industrial Ecology and Design for Sustainability	The conceptual, ethical, and practical challenges in the design, manufacture, and life cycle performance of products; environmental evaluation via materials flow analysis and life cycle assessment; global economic, environmental, cultural, and social aspects of competitive and functional product development and manufacture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	3.		
CEE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student
CEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Engineering CEE Graduate student
CEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student
CEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1.		Pre-requisite: Civil Engineering MS or MSE student

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CEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-4		Pre-requisite: Engineering CEE Graduate student
CEE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering MS or MSE student
CEE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		
CEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-12		Pre-requisite: Civil Engineering PhD student
CEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-15		Pre-requisite: Civil Engineering PhD student
CEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1.		Pre-requisite: Civil Engineering PhD student
CEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	Ira A. Fulton Engineering	Civil, Environmental and Sustainable Eng Program	1-15		Pre-requisite: Civil Engineering PhD student
CHE	100	Introduction to Chemical Engineering	Introduces design in chemical engineering, teaming, chemical engineering profession, computer models, communication skills, quality and customer satisfaction. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	2.		Pre-requisite: Ira A. Fulton School of Engineering and University College student
CHE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	211	Introduction to Chemical Processing	Applies chemical engineering analysis and problem solving to chemical processes material and energy balance methods and skills.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: CHM 116 with C or better; MAT 266 or MAT 271 with C or better
CHE	231	Introduction to Transport Phenomena I: Fluids	Transport phenomena, with emphasis on fluid systems. Credit is allowed for only CHE 231 or 501.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: CHE 211 with C or better; MAT 266 or MAT 271 with a C or better
CHE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-6		Pre-requisites: Honors students only
CHE	334	Introduction to Transport Phenomena II: Heat and Mass Transfer	Applies heat and mass transport principles. Design of heat exchangers and continuous contactors. Credit is allowed for only CHE 334 or 502.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 231 or 331 with C or better
CHE	342	Introduction to Applied Chemical Thermodynamics	Applies conservation and accounting principles with nonideal property estimation techniques. Credit is allowed for only CHE 342 or 504.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 211 or CHE 311 with C or better; Pre or Co-requisite: MAT 267 or MAT 272 (with C or better if completed)
CHE	352	Transport Laboratories	Introduces engineering lab equipment, data collection, and analysis; strengthens ability to generate written reports and oral presentations; reinforces teamwork skills; strengthens and extends the understanding of earlier technical contents in the curriculum. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	L	Pre-requisites: BS/BSE Engineering students
CHE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	432	Principles of Chemical Engineering Design	Multicomponent distillation, engineering economics, equipment sizing and costs, plant operation economics, and simulation and optimization techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student; CHE 334 and CHE 342 with a C or better OR Graduate Engineering student
CHE	433	Modern Separations	Design of modern separation equipment in chemical engineering other than fractionation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student; CHE 334 and CHE 342 with C or better
CHE	442	Introduction to Chemical Reactor Design	Applies kinetics to chemical reactor design. Credit is allowed for only CHE 442 or 505.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE students; CHE 334 and CHE 342 with a C or better OR Graduate Engineering students

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CHE	451	Chemical Engineering Laboratory	Operation, control, and design of experimental and industrial process equipment; independent research projects. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; CHE 334 with C or better; CHE 342 with C or better; MAE 384 (or ECE 384) with C or better OR Graduate Engineering students
CHE	458	Semiconductor Material Processing	Introduces the processing and characterization of electronic materials for semiconductor applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BSE student; CHE 334 and CHE 342 with C or better OR Graduate Engineering student
CHE	461	Process Dynamic Control	Process dynamics, instrumentation, and feedback applied to automatic process control. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	CS	Pre-requisites: Engineering BS or BSE student; MAT 274 or MAT 275 with C or better; MAE 384 or CEE 384 with a C or better OR Graduate Engineering student
CHE	462	Process Design	Applies economic principles to optimize equipment selection and design; development and design of process systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.	L	Pre-requisites: Engineering BS or BSE student; CHE 432, CHE 442 and CHE 433 with C or better OR Graduate Engineering student
CHE	469	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CHE 469 or 569.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	474	Chemical Engineering Design for the Environment	Conflict of processing materials and preserving the natural resources. Teaches students to understand and value the environment and attempt to control our impact.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; Must have completed CHE 334 and CHE 342 with a grade of C or better
CHE	475	Biochemical Engineering	Applies chemical engineering methods, mass transfer, thermodynamics, and transport phenomena to industrial biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisite: Engineering BSE student
CHE	476	Bioreaction Engineering	Principles of analysis and design of reactors for processing with cells and other biologically active materials; applies reaction engineering in biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE student OR Graduate Engineering student
CHE	477	Bioseparation Processes	Principles of separation of biologically active chemicals; the application, scale-up, and design of separation processes in biotechnology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with a minimum GPA of 3.00 OR Graduate Engineering student
CHE	478	Industrial Water Quality Engineering	Chemical treatment processing, quality criteria and control, system design, and water pollutants.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; Must have completed CHE 231 or CHE 331 with a grade of C or greater; Seniors only
CHE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	490	Chemical Engineering Projects	Individual projects in chemical engineering operations and design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-5		Pre-requisite: Engineering BSE student
CHE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-6		Pre-requisites: Honors students only
CHE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-6	L	Pre-requisites: Honors students only
CHE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		
CHE	496	Professional Seminar	Professional and ethical aspects with a discussion of responsibilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-7		Pre-requisites: Engineering BS or BSE student OR Graduate Engineering student
CHE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-3		
CHE	501	Introduction to Transport Phenomena I: Fluids	Transport phenomena, with emphasis on fluid systems. Credit is allowed for only CHE 501 or 231.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	502	Introduction to Transport Phenomena II: Heat and Mass Transfer	Applies heat and mass transport principles. Design of heat exchangers and continuous contactors. Credit is allowed for only CHE 502 or 334.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	504	Introduction to Applied Chemical Thermodynamics	Applies conservation and accounting principles with nonideal property estimation techniques. Credit is allowed for only CHE 504 or 342.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	505	Introduction to Chemical Reactor Design	Applies kinetics to chemical reactor design. Credit is allowed for only CHE 505 or 442.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in MSE 518, EEE 518, or MSE 475 you may not enroll in CHE 518
CHE	527	Advanced Applied Mathematical Analysis in Chemical Engineering	Formulation and solution of complex mathematical relationships resulting from the description of physical problems in mass, energy, and momentum transfer and chemical kinetics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	533	Transport Processes I	Unified treatment of momentum, heat, and mass transfer from molecular theory, and continuum points of view. Continuum equations of microscopic and macroscopic systems and multicomponent and multiphase systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Graduate Engineering student

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CHE	534	Transport Processes II	Continuation of BME 533 or CHE 533, emphasizing mass transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	536	Convective Mass Transfer	Turbulent flow for multicomponent systems, including chemical reactions with applications in separations and air pollution.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	543	Thermodynamics of Chemical Systems	Classical and statistical thermodynamics of nonideal physicochemical systems and processes; prediction of optimum operating conditions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		Pre-requisites: Graduate Engineering student
CHE	544	Chemical Reactor Engineering	Reaction rates, thermodynamics, and transport principles applied to the design and operation of chemical reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	552	Industrial Water Quality Engineering	Water pollutants, quality criteria and control, chemical treatment processing, and system design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	553	Air Quality Control	Air pollutant origins, effects, and control. Physical and chemical processes, including dispersion, combustion, sampling, control equipment design, and special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	561	Advanced Process Control	Dynamic process representation, linear optimal control, optimal state reconstruction, and parameter and state estimation techniques for continuous and discrete time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	569	Air Quality Engineering	Chemical and physical processes by which air pollutants are generated and controlled with an emphasis on urban air quality. Credit is allowed for only CHE 569 or 469.	N	LEC	N	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
CHE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		Pre-requisites: Chemical Engineering Master's degree student
CHE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-4		Pre-requisite: Graduate Engineering student
CHE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		Pre-requisites: Chemical Engineering Master's degree student
CHE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Chemical Engineering Program	1-12		
CHE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Chemical Engineering Program	1-15		Pre-requisites: Chemical Engineering Doctoral student

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CHE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Chemical Engineering Program	1.		
CHE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Chemical Engineering Program	1-15		Pre-requisites: Chemical Engineering Doctoral student
CHI	101	First-Year Chinese I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills. Standard dialect. 5 class hours.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
CHI	102	First-Year Chinese II	See CHI 101. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites: Must have completed CHI 101 with a grade of D or better or be currently enrolled
CHI	120	Introduction to Chinese Culture	Introduces geographical, historical, literary, and intellectual premises of Chinese culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
CHI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	201	Second-Year Chinese I	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills. 5 class hours. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: Must have completed CHI 102 with a grade of D or better or currently enrolled
CHI	202	Second-Year Chinese II	See CHI 201. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: Must have completed CHI 201 with a grade of D or better or currently enrolled
CHI	205	Chinese Calligraphy	Introduces styles and techniques of Chinese writing. Requires no knowledge of Chinese or Japanese.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	301	Third-Year Chinese I	Expansion of proficiency in listening comprehension, speaking, reading, and writing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: CHI 202 with a grade of C or better or currently enrolled
CHI	302	Third-Year Chinese II	Continuation of CHI 301.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: CHI 301 with a grade of C or better or currently enrolled
CHI	307	Introduction to Literary Chinese I	Reading in various genres of pre-20th century literature (wen-yen), with analysis of the structure of the classical writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: CHI 302, or JPN 202, or KOR 202 with a grade of C or better or currently enrolled
CHI	308	Introduction to Literary Chinese II	Continuation of CHI 307.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: CHI 307 with a grade of C or better, or currently enrolled
CHI	309	Chinese Conversation	Aural/oral drills using contemporary stories, articles, and essays. For students with lower-level proficiency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites: Must have completed CHI 202 with a grade of D or better or currently enrolled
CHI	310	Chinese Conversation	See CHI 309.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites: CHI 202 with a grade of D or better or currently enrolled
CHI	311	Chinese Conversation	Intensive aural/oral practice in modern Chinese. For students who have lived in China or a Chinese-speaking environment.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		
CHI	312	Chinese Conversation	See CHI 311.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites: CHI 202 with a grade of D or better or currently enrolled
CHI	321	Chinese Literature	Masterworks of the tradition from the 7th century BCE through the 13th century. Readings, lectures, and examinations are in English.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	
CHI	322	Chinese Literature	Masterpieces from the later tradition and its transition to modern times. Readings, lectures, and examinations are in English.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
CHI	345	Chinese Film and Civilization	Screening and discussion of recent films from China, Taiwan, and Hong Kong in the context of modern Chinese civilization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	380	The Chinese Language	Introduces the Chinese languages from linguistic perspectives. Topics include the linguistic structure and characteristics (phonetics, phonology, morphology and syntax) of the Chinese language; linguistic history and dialects of Chinese; and its relationship with culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	401	Fourth-Year Chinese I	Focuses on solidifying and improving students' knowledge of modern Mandarin. Emphasizes learning strategies to increase reading and listening comprehension, as well as further strengthening oral fluency and written skills. Surveys a wide variety of original text and media materials, in both full-form and simplified characters. Conducted in Chinese.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 with C or better
CHI	402	Fourth-Year Chinese II	Continuation of CHI 401.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 401 with C or better

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CHI	407	Chinese for Professional Purposes I	Part of the Chinese Flagship program; course has a three-fold objective: (1) to improve language proficiency in all four language skills; (2) to support other Flagship courses by introducing specific vocabulary, literary genres, key reference materials; and (3) to develop the use of explicit language learning strategies that support professional-level literacy.	N	DIS	N	OP4	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 402 with a C or better
CHI	408	Chinese for Professional Purposes II	Part of the Chinese Flagship Program. Improves language proficiency in all four language skills; supports other Flagship courses by introducing specific vocabulary, literary genres, key reference materials; develops the use of explicit language learning strategies that supports professional level literacy. All course work in Mandarin Chinese.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 407 with C or better
CHI	430	Readings in Chinese Religions	Readings in Chinese religious texts, including Buddhism, Daoism, local religious cults, and others. May be repeated once for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 308 (CHI 414) with C or better
CHI	450	Classical Prose	Readings in classical prose forms, including guwen, sanwen, pianti wen, fu, and incidental writings. Course content varies with instructor.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 308 with a grade of C or better
CHI	461	Classical Vernacular Performance Literature	Readings in performance literature in colloquial Chinese. Bianwen, zhugongdiao, baojuan, zaju, chuanqi drama.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 and CHI 307 with a grade of C or better
CHI	462	Readings in Traditional Xiaoshuo	Readings in the shorter and longer fiction of the late imperial period written in classical vernacular language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302, and CHI 308
CHI	470	Modern Chinese Literature and Culture	Readings in modern Chinese literary texts, including prose, fiction, and poetry. Course content changes with instructor.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 with a grade of C or better
CHI	482	History of the Chinese Language	Introduces the history of the Chinese language. Graduate/advanced undergraduate-level introductory course on the historical changes of the sounds, writing system, grammar, and other aspects of the Chinese language. Topics include the historical phonology of Chinese, development of graphs (Hanzi), some topics of syntactic changes in texts, morphology, lexicography, cultural implication of language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: CHI 302 and CHI 308
CHI	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
CHI	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
CHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
CHI	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	514	Advanced Classical Chinese	Close readings in selected premodern texts, with focus on special grammatical features, and increased vocabulary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	520	Teaching of Chinese as a Second Language	Theory and practice of teaching Chinese, including presentation, interaction, and evaluation, with consideration given to cultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	535	Advanced Readings	Readings in primary and secondary sources in history, art, religious studies, economics, or other fields.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	543	Chinese Language and Linguistics	Analysis and discussion, within the framework of linguistic theory, of selected problems in Chinese phonetics, morphology, and syntax.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
CHI	561	Readings in Traditional Xiaoshuo	Introduces major issues, texts, and resource materials for the study of narrative forms, including short stories and longer works of fiction. Focuses on the period from 1400 to 1900. One year of university-level classical Chinese or equivalent proficiency; three years of university-level modern Chinese recommended.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
CHI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	585	Problems of Translation	Theories and practice of translation: strategies for handling a variety of Chinese texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

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CHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
CHI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	684	Internship		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
CHI	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
CHI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
CHI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	Pre-requisite: CHM 101 with C or better or ASU UPT with score of 75 or better or ALEKS with score of 50 or better or Pre or Co-requisite: MAT 170, MAT 210, MAT 251, MAT 265 or MAT 270 (with C or better if completed). Credit for CHM 113 or CHM 117 only
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	Pre-requisites: CHM 113 or CHM 117 with C or better
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	Pre-requisites: CHM 101, or CHM 114, or 116, or 118 with C or better
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: CHM 116 or CHM 118 with C or better
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites:CHM 233 or CHM 333 with a C or better
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre/Co-requisites: CHM 231 with C or better
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre- or Co-requisites: CHM 233 (C or better if completed)
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.		Pre-requisites: CHM 237 or 337 with C or better; Pre or Co-requisites: CHM 234 (with C or better if completed)
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisites: Students who have credit for CHM 107, may not enroll in CHM 101
CHM	107	Chemistry and Society	General chemical principles and concepts presented in context of social and technological issues, e.g., energy, pollution, global warming, and others. This is a lecture course which may be combined with the laboratory CHM 108 for those interested in lab course credit. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Credit earned for CHM 101 and any combination of CHM 107 and 108 cannot be used simultaneously. General Studies: SQ (if taken with CHM 108) & G	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	SQ & G	Pre-requisites: Students who have credit for CHM 101, may not enroll in CHM 107
CHM	108	Chemistry and Society Laboratory	Experiments in chemical principles presented in chemistry and society lectures (CHM 107). Students must complete both CHM 107 and CHM 108 to receive an SQ (General Studies).	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisite: CHM 101 with C or better or ASU UPT with score of 75 or better or ALEKS with score of 50 or better or Pre or Co-requisite: MAT 170, MAT 210, MAT 251, MAT 265 or MAT 270 (with C or better if completed). Credit for CHM 113 or CHM 117 only
CHM	114	General Chemistry for Engineers	Chemical principles with emphasis toward engineering. Students without high school chemistry or chemical engineering majors must enroll in the CHM 113, 116 sequence instead of CHM 114. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisite: CHM 101 with C or better or ASU UMPT with score of 75 or better or ALEKS with score of 50 or better or Pre or Co-requisite: MAT 170, MAT 210, MAT 251, MAT 265 or MAT 270 (with D or better if completed)

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CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisites: CHM 113 or CHM 117 with C or better
CHM	117	General Chemistry for Majors I	Atomic and molecular structure, properties and physical states of matter, chemical analysis, bonding, stoichiometry. Credit is allowed for only CHM 117 or 113. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisites: CHM 101 with C or better or ASU UMPT with score of 75 or higher or ALEKS with score of 50 or higher or Pre-or Co-requisite of MAT 170 (or MAT 210, 251, 265, 270); Chemistry or Biochemistry majors only. Credit for CHM 113 or CHM 117 only
CHM	118	General Chemistry for Majors II	Atomic and molecular structure, properties and physical states of matter, chemical analysis, bonding, stoichiometry. Credit is allowed for only CHM 118 or 115 or 116. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.	SQ	Pre-requisites: CHM 117 with C or better; Chemistry and Biochemistry majors only
CHM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
CHM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	SQ	Pre-requisites: CHM 101, or CHM 114, or 116, or 118 with C or better
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 116 or CHM 118 with C or better
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 233 or CHM 333 with a C or better
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	SQ	Pre/Co-requisites: CHM 231 with C or better
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre- or Co-requisites: CHM 233 (C or better if completed)
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: CHM 237 or 337 with C or better; Pre or Co-requisites: CHM 234 (with C or better if completed)
CHM	240	Introduction to Physical Chemistry	Introduces mathematical/computational methods in chemical kinetics, thermodynamics, quantum chemistry. Mathematical-based computer lab. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.	CS	Pre-requisites: MAT 272 or MAT 267 with C or better
CHM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		Pre-requisites: Must be an Honors student
CHM	302	Environmental Chemistry	Explores major environmental issues, problems, and solutions from analytical and chemistry perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 114 or 116 or 118 with C or better; CHM 231 or 233 or 333 with C or better
CHM	303	Environmental Chemistry Laboratory	Lab in environmental chemistry to complement CHM 302. First-hand experience with sampling methods, analytical techniques, and environmental lab methods. Both CHM 303 and CHM 348 must be taken to secure L General Studies credit.Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.	L	Pre/Co-requisites: CHM 302 with C or better if completed
CHM	325	Analytical Chemistry	Principles and methods of chemical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 116 or CHM 118 with C or better
CHM	326	Analytical Chemistry Laboratory	Experiments in chemical analysis. Fee.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre/Co-requisites: CHM 325 with C or better if completed
CHM	327	Instrumental Analysis	Principles of instrumental methods in chemical analysis. Electroanalytical and optical techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 325 and CHM 326 with C or better; Pre/Co-requisite: CHM 346 with C or better if completed
CHM	328	Instrumental Analysis Laboratory	Experiments in chemical analysis by electroanalytical and optical techniques. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		Pre/Co-requisite: CHM 327 with C or better if completed
CHM	332	General Organic Chemistry	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	333	Organic Chemistry for Majors I	Structures, reaction mechanisms and kinetics, and systematic syntheses of organic compounds. Credit is allowed for only CHM 333 or 231 or 233.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: Must be a Biochemistry or Chemistry student; CHM 116 or 118 with C or better
CHM	334	Organic Chemistry for Majors II	Continuation of CHM 333. Credit is allowed for only CHM 334 or 234.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: Biochemistry or Chemistry student; CHM 333 with a C or better
CHM	336	General Organic Chemistry Laboratory	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	337	Organic Chemistry Laboratory for Majors I	Emphasizes mechanisms, kinetics, and products of organic reactions. Credit is allowed for only CHM 337 or 237. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Biochemistry or Chemistry student; Pre- or Co-requisite: CHM 333 (with C or better if completed)
CHM	338	Organic Chemistry Laboratory for Majors II	Continuation of CHM 337. Credit is allowed for only CHM 338 or 238. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: Biochemistry or Chemistry student; CHM 337 with C or better; Pre or Co-requisites: CHM 334

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CHM	341	Elementary Physical Chemistry	Thermodynamics, equilibrium, states of matter, solutions, and chemical kinetics. For students in premedical, biological, and educational curricula.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 114, 116 or 118 with C or better; CHM 231, 233 or 333 with C or better; MAT 210, 251, 265 or 270 with C or better; PHY 101, 112 or 131 with C or better.
CHM	343	Physical Chemistry Laboratory	Physical chemistry experiments. Credit is allowed for only CHM 343 or both CHM 348 and 349. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		Pre-requisites: CHM 341 with C or better or co-enrolled in CHM 341
CHM	345	Physical Chemistry I	Introduces quantum chemistry with application to electronic structure and dynamics of atoms and molecules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Prerequisites: CHM 240 with C or better or both MAT 272 and 274 with C or better
CHM	346	Physical Chemistry II	Introduces equilibrium and statistical thermodynamics. Laws of thermodynamics, equations of state, multicomponent chemical and phase equilibria, and electrochemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 345 with C or better
CHM	348	Physical Chemistry Laboratory I	Lab experiments in spectroscopy and computational chemistry. fee. To secure L General Studies credit the following must be taken: CHM 303 & CHM 348 or CHM 348 & CHM 349 & CHM 452.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	L	Pre/Co-requisite: CHM 345 with a C or better if completed
CHM	349	Physical Chemistry Laboratory II	Lab experiments in thermodynamics, electrochemistry, and computational chemistry. CHM 348, CHM 349 and CHM 452 must be taken to secure L General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.	L	Pre/Co-requisites: CHM 346 with C or better if completed
CHM	392	Introduction to Research Techniques	Instrumental methods and philosophy of research by actual participation in chemical research projects. May be repeated for a total of 6 semester hours.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
CHM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	424	Separation Science	Basic theory and practical aspects of gas, liquid, ion-exchange, and gel-permeation chromatographies, and other important industrial and research techniques. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 234, or 334, or 346, with C or better
CHM	433	Advanced Organic Chemistry I	Reaction mechanisms, reaction kinetics, linear free energy relationships, transition state theory, and Woodward-Hoffmann rules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 234 or 334 AND CHM 341 or 346, with C or better
CHM	434	Advanced Organic Chemistry II	Continuation of CHM 433.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisite: CHM 433 or CHM 531 with C or better
CHM	435	Medicinal Chemistry	Principles of medicinal and pharmaceutical chemistry. Drug design, synthesis, and mechanism of action.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: BCH 361 (or BCH 461), BIO 353 and CHM 234 (or CHM 334) with a C or better; You may not enroll in CHM 435 if you have credit for CHM 535
CHM	452	Inorganic Chemistry Laboratory	Preparation and characterization of typical inorganic substances, emphasizing methods and techniques. CHM 348, CHM 349 and CHM 452 must be taken to secure L General Studies credit. fee	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-2	L	Pre/Co-requisite: CHM 453 with C or better if completed
CHM	453	Inorganic Chemistry	Principles and applications of inorganic chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 341 or CHM 346 with C or better
CHM	460	Biological Chemistry	Structure and function of macromolecules and their involvement in the processing of energy and information by living cells.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 234 (or 334) with C or better; CHM 346 with C or better
CHM	471	Solid-State Chemistry	Crystal chemistry, thermodynamics and electrochemistry of solids, nonstoichiometric compounds, diffusion and solid-state reactions, crystal growth, and selected topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre/Co-requisite: CHM 346 with C or better if completed
CHM	480	Methods of Teaching Chemistry	Organization and presentation of appropriate content of chemistry; preparation of reagents, experiments, and demonstrations; organization of stock rooms and laboratories; experience in problem solving. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	481	Geochemistry	Origin and distribution of the chemical elements. Geochemical cycles operating in the Earth's atmosphere, hydrosphere, and lithosphere.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 341(or 346) or GLG 321 with C or better
CHM	483	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	485	Meteorites and Cosmochemistry	Chemistry of meteorites and their relationship to the origin of the Earth, solar system, and universe.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Pre-requisites: CHM 341 or CHM 346 with C or better
CHM	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		Pre-requisites: Must be an Honors student
CHM	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6	L	Pre-requisites: Must be an Honors student
CHM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-6		Pre-requisites: Barrett Honors College students only
CHM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-7		

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CHM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-3		
CHM	501	Current Topics in Chemistry		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	521	Chemometrics	Overview of chemometric tools in analytical chemistry, including multivariate calibration, spectral deconvolution, and experimental design.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	523	Advanced Analytical Chemistry	Theoretical principles of analytical instrumentation and measurements.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	524	Separation Science	Addresses principles and applications for all areas of chemical separations. Emphasizes separations principles in microfluidics and its interface with nanotechnology and traditional electronic materials.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	525	Analytical Spectroscopy	Theoretical and practical considerations involving the use of optical instruments for chemical analyses.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.		
CHM	527	Electroanalytical Chemistry	Theoretical and practical considerations for modern electroanalytical chemistry, including voltammetry, potentiometry, and microelectrode analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	4.		Pre-requisites: CHM 346 with C or better. Credit is allowed for only CHM 527 or NAN 527
CHM	531	Advanced Organic Chemistry I	Reaction mechanisms, reaction kinetics, linear free energy relationships, transition state theory, molecular orbital theory, and Woodward-Hoffmann rules.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	532	Advanced Organic Chemistry II	Organic mechanisms, thermodynamic and kinetic control, structure/activity relationships, isotope effects, multistep reactions, reactive intermediates, radical reactions, electron transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	535	Medicinal Chemistry	Principles of medicinal and pharmaceutical chemistry. Drug design, synthesis, and mechanism of action.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Students may not enroll in CHM 535 who have credit in CHM 435
CHM	537	Organic Reactions	Organic synthetic methodologies and important synthetic reactions emphasizing recently discovered reactions of preparative value. Protection/deprotection synthetic strategies; peptide synthesis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	541	Advanced Thermodynamics	Equilibrium thermodynamics. Chemical reactions, phase equilibria, and stability in multicomponent systems. Aqueous solutions and electrochemistry. Introduces statistical thermodynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		Credit is allowed for only CHM 541 or MSE 524
CHM	543	Computational Chemistry	Provides basic concepts and practical experience in computational chemistry. Covers electronic structure methods and computer simulation techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	545	Quantum Chemistry	Wave and matrix formulation of quantum mechanics applied to the vibrational, rotational, and electronic states of polyatomic molecules. Hartree-Fock, electron correlation, and molecular orbital theory. Selection rules and introduction to group theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	546	Molecular Spectroscopy and Group Theory	Applies quantum mechanics to the general problem of the interaction of light with molecular systems. Angular momentum and group theory. Symmetry classifications. Overview of the formalism and experimental techniques in different resonant-based spectroscopies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	548	Chemical Kinetics and Dynamics	Experimental and theoretical aspects of time-dependent processes in chemistry. Topics include kinetics of chemical reactions, diffusion, and relaxation phenomena in ordered and disordered materials.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	549	Advanced Topics in Physical Chemistry	Various advanced and special topics in physical chemistry. Previous topics included: supercooled liquids and the glass transition, vibrational spectroscopy of solids, phase transitions and critical phenomena. May be repeated for credit.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	552	Advanced Inorganic and Materials Synthesis Laboratory	Preparation and characterization of inorganic compounds and materials, emphasizing advanced methods and techniques of importance in inorganic and materials chemistry. Schlenk-line and glovebox manipulations, solvothermal syntheses, and gas-phase reactions.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	2.		
CHM	553	Advanced Inorganic Chemistry	Principles of modern inorganic chemistry applied over the entire periodic system. Bonding theory, chemical reactivity, spectroscopic and magnetic properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	571	Structure, Bonding, and Symmetry in Materials	Principles of structural and materials chemistry, emphasizing crystal chemistry. Symmetry of periodic structures (space groups), factors determining bond lengths and coordination geometries, and the role of structure in determining physical properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	579	Topics in Inorganic and Materials Chemistry		N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	582	Topics in Geochemistry and Cosmochemistry	Topics of current interest for students in chemistry and other fields. Sampling of data and thought concerning phase equilibria, element distribution, meteorites, the Earth, and other planets.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	3.		
CHM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-4		
CHM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-12		
CHM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-15		
CHM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1.		
CHM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Chemistry and Biochemistry	1-15		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	Pre-requisite: CHM 101 with C or better or ASU UPT with score of 75 or better or ALEKS with score of 50 or better or Pre or Co-requisite: MAT 170, MAT 210, MAT 251, MAT 265 or MAT 270 (with C or better if completed). Credit for CHM 113 or CHM 117 only
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	Pre-requisites: CHM 113 or CHM 117 with C or better
CHM	233	General Organic Chemistry I	Chemistry of organic compounds. Credit is allowed for only CHM 233 or 231 or 333.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: CHM 116 or CHM 118 with C or better
CHM	234	General Organic Chemistry II	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: CHM 233 or CHM 333 with a C or better
CHM	237	General Organic Chemistry Laboratory I	Microscale organic chemical experiments in separation techniques, synthesis, analysis and identification, and relative reactivity. Credit is allowed for only CHM 237 or 337. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre- or Co-requisites: CHM 233 (C or better if completed)
CHM	238	General Organic Chemistry Laboratory II	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	N	REC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: CHM 237 or 337 with C or better; Pre or Co-requisites: CHM 234 (with C or better if completed)
CHM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	325	Analytical Chemistry	Principles and methods of chemical analysis.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	326	Analytical Chemistry Laboratory	Experiments in chemical analysis. Fee.	N	REC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	327	Instrumental Analysis	Principles of instrumental methods in chemical analysis. Electroanalytical and optical techniques.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	328	Instrumental Analysis Laboratory	Experiments in chemical analysis by electroanalytical and optical techniques. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	2.		Pre/Co-requisite: CHM 327 with C or better if completed
CHM	332	General Organic Chemistry	Continuation of CHM 233. Credit is allowed for only CHM 234 or 334.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
CHM	336	General Organic Chemistry Laboratory	Continuation of CHM 237. Credit is allowed for only CHM 238 or 338. Fee.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
CHM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
CHM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
CHM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
CHM	101	Introductory Chemistry	Elements of general chemistry. Adapted to the needs of students in nursing and kinesiology and those preparing for general chemistry. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	
CHM	107	Chemistry and Society	General chemical principles and concepts presented in context of social and technological issues, e.g., energy, pollution, global warming, and others. This is a lecture course which may be combined with the laboratory CHM 108 for those interested in lab course credit. Recommended for General Studies credit. Cannot be used for major credit in chemical or biochemical sciences. Credit earned for CHM 101 and any combination of CHM 107 and 108 cannot be used simultaneously. General Studies: SQ (if taken with CHM 108) & G	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SQ & G	
CHM	108	Chemistry and Society Laboratory	Experiments in chemical principles presented in chemistry and society lectures (CHM 107). Students must complete both CHM 107 and CHM 108 to receive an SQ (General Studies).	N	LAB	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SQ	
CHM	113	General Chemistry I	Principles of chemistry. Adapted to the needs of students in the physical, biological, and earth sciences. Credit is allowed for only CHM 113 or 117. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	Pre-requisite: CHM 101 with C or better or ASU UPT with score of 75 or better or ALEKS with score of 50 or better or Pre or Co-requisite: MAT 170, MAT 210, MAT 251, MAT 265 or MAT 270 (with C or better if completed). Credit for CHM 113 or CHM 117 only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CHM	116	General Chemistry II	Continuation of CHM 113. Equilibrium theory, thermodynamics, kinetics, electrochemistry, nuclear chemistry, descriptive chemistry. Credit is allowed for only CHM 116 or 115 or 118. Fee.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SQ	Pre-requisites: CHM 113 or CHM 117 with C or better
CHM	231	Elementary Organic Chemistry	Surveys organic chemistry, with emphasis on the reactivity of basic functional groups. Credit is allowed for only CHM 231 or 233 or 333. Both CHM 231 and 235 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SQ	Pre-requisites: CHM 101, or CHM 114, or 116, or 118 with C or better
CHM	235	Elementary Organic Chemistry Laboratory	Organic chemistry experiments in synthesis, purification, analysis, and identification. Both CHM 231 and 235 must be taken to secure SQ General Studies credit. fee	N	REC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SQ	
CHM	480	Methods of Teaching Chemistry	Organization and presentation of appropriate content of chemistry; preparation of reagents, experiments, and demonstrations; organization of stock rooms and laboratories; experience in problem solving. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
CHP	500	Research Methods	Course on research methods in a specific discipline.	Y	DIS	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
CHP	501	Community Health Assessment and Analysis	Provides theory and practice in community assessment and analysis applicable to community health practice.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing (Comm Health Nursing) or Nursing (Comm Health Adv Prac) student; CHP 500 with B or better; Co-requisite: NUR 581
CHP	502	Community Health Program Planning and Evaluation	Utilizes planning and evaluation theory in planning programs to meet identified health needs of communities.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing (Comm Health Adv Prac) student; CHP 501 with B or better
CHP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
CIM	105	Introduction to the Concrete Industry	Overview of the history, career opportunities, job functions, and professional organizations in the concrete industry.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	2.		
CIM	106	Fundamentals of Concrete: Properties and Testing	Examines effects of concrete-making materials on the properties of fresh and hardened concrete. Concrete mixture proportioning calculations and analysis.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: CIM 105 with C or better; Co-requisite: STP 226
CIM	205	Concrete Construction Methods	Forming, shoring, placing and reinforcing operations. Transporting, placing, consolidating, finishing, jointing, and curing concrete for foundations and other structural members.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CIM 106 with C or better; CON 252
CIM	206	Application of Concrete in Construction	Detailed study of the many uses of concrete in the construction of buildings, pavements, and other facilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CIM 205 with C or better; CON 243 with C or better
CIM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CIM	305	Management of Concrete Products: Ordering and Delivering	Basic understanding of managing the order and delivery process common to all concrete products.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 206 with C or better; CON 221 with C or better
CIM	306	Management of Concrete Products: Production Facilities	Detailed study of the many uses of concrete in the construction of buildings, pavements, and other facilities.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 305 and CON 251 with C or better; CON 271
CIM	405	Concrete Problems: Diagnosis, Prevention, and Dispute	Diagnose and prevent problems related to concrete production, testing, construction, and performance.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 206 with C or better
CIM	406	Concrete Industry Management Capstone	Intensive study of a problem appropriate to the major and the student's career interests. Lecture, student presentations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisites: Construction BS student; CIM 405 with C or better; COM 225
CIM	420	Senior Concrete Lab	Reintroduces fundamental lab procedures as well as advanced testing methods. Collect data, search for literature, analyze and report on conclusions.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS student; CIM 405 with C or better
CIM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CIS	105	Computer Applications and Information Technology	Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.	CS	
CIS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-3		
CIS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		
CIS	220	Programming Concepts for Accountancy Majors	Introduces business computer programming. Uses programming languages such as Visual BASIC to teach proper programming style and practice. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		
CIS	235	Introduction to Information Systems	Survey course introducing the competitive and strategic uses of information systems, how information systems are transforming organizations and their management, and the issues, difficulties, and opportunities facing the technology professional and business manager today. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: CIS 105, 200 or 220 with C or better; MAT 210, 270, 211 or 271 with C or better; Credit allowed for only CIS 235 or CIS 236
CIS	236	Honors Introduction to Information Systems	Introduces strategic leveraging of IS solutions and surveys different facets of IS in order to gain an understanding of how business problems are addressed and opportunities realized.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.	CS	Pre-requisites: Must be an Honors student
CIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Accountancy or Computer Information Systems BS or PRE student

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CIS	300	Web Design and Development	Focuses on Web site development, including target audience, image presentation, page/content topic organization, site navigational functionality, implementation needs, and future needs. Web site design and development practice using business software products.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: Minimum 2.0 ASU cumulative GPA AND minimum 56 earned hours, OR be post-bacc undergraduate, or be non-degree seeking student or be graduate student.
CIS	335	Visual Paradigms for Information Systems Development	Uses visual programming languages such as Visual BASIC to implement data structures, file structures, and interfaces in business information systems. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: W. P. Carey ACC BS student having completed CIS 220 OR CIS BS student having completed CSE 100, AND ACC 241 AND ECN 221 with a grade of C or greater
CIS	340	Object-Oriented Modeling and Programming	Object-oriented modeling of business information systems. Abstract data types and object-oriented programming using a language such as C#. Fee.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: Must be W. P. Carey CIS BS student; AND must have completed ACC 241 or ACC 271, CIS 235 or CIS 236, CSE 181 or CSE 182, and ECN 221 with a C or greater
CIS	360	Business Database Concepts	Database theory, design, and application, including the entity-relationship model; the relational, hierarchical, and network database models; and query languages. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-Requisites: W. P. Carey Accountancy BS student, and CIS 105 or CIS 220 or 236, ACC 231 or 261, and ACC 241 or 271 with a grade of C or better; OR W. P. Carey Computer Information Systems BS student, and CIS 235 or 236 with a grade of C or better.
CIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Min 2.0 ASU cum GPA and min 56 earned hours, OR be post-bacc undergraduate, or be non-degree seeking student or be graduate student.
CIS	425	Electronic Commerce Strategy	Key business strategies and technology elements of contemporary electronic commerce. Covers Web design and interactions between Web pages and databases. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: W. P. Carey Accountancy BS or Computer Information Systems BS student; CIS 360 with C or better
CIS	430	Networks and Distributed Systems	Advanced topics such as communications protocols, distributed systems, network security and client-server systems; applications based on platforms such as .NET and networked UNIX. fee	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.		Pre-requisites: W. P. Carey Computer Information Systems student; ACC 330 or 444; CIS 340 or 410 with C or better; Pre/Co-requisite: CIS 360
CIS	440	Systems Design and Electronic Commerce	Systems design for organizational and electronic commerce systems; use of project management and systems analysis and design tools.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	3.	L	Pre-requisites: W.P. Carey Computer Information Systems BS student; CIS 360 and CIS 430 with C or better
CIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: W.P. Carey CIS BS student
CIS	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Information Systems	1-6		
CIS	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Information Systems	1-6	L	Pre-requisites: Must be an Honors student
CIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: W.P. Carey ACC BS or CIS BS student
CIS	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-6		
CIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-7		Pre-requisites: W.P. Carey CIS BS student
CIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-3		Pre-requisites: W.P. Carey CIS BS student
CIS	502	Information Systems	Organizational, strategic, and technical issues of the management of information. Evaluation, design, and use information systems as competitive advantage.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: W.P.Carey MBA student
CIS	505	Object-Oriented Modeling and Programming	Object-oriented modeling of business information systems, abstract data types and object-oriented programming using a visual language.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey graduate students only
CIS	506	Business Database Systems	Hierarchical, network, relational, and other recent data models for database systems. Processing issues such as concurrency control, query optimization, and distributed processing.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	512	Intelligent Decision Systems and Knowledge Management	Definition, description, construction, and evaluation of computer-based decision systems.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	515	Management Information Systems	Systems theory concepts applied to the collection, retention, and dissemination of information for management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	520	Systems Design and Evaluation	Methodologies of systems analysis and design. Issues include project management, interface, organizational requirements, constraints, documentation, implementation, control, and performance evaluation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
CIS	530	Information Systems Development	Object-oriented and interprocess communication and control concepts for information systems; applications based on languages such as C++ and platforms such as networked UNIX.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisites: Specific W.P. Carey Graduate students only

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CIS	535	Distributed and Mixed-Media Information Systems	Modern communications protocols for wireless and mobile computing, overview of network and distributed database management systems, overview of storage and multimedia delivery issues, and shared virtual reality technologies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: Specific W.P. Carey Graduate student
CIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: Specific W.P. Carey Graduate student
CIS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-4		Pre-requisite: Specific W.P. Carey Graduate student
CIS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Information Systems	1-12		
CIS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-12		Pre-requisite: W.P. Carey Info Systems PhD student
CIS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Information Systems	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CIS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Information Systems	1.		
CIS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Information Systems	1-15		
CIS	105	Computer Applications and Information Technology	Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	CS	
CLS	100	Introduction to Clinical Laboratory Sciences	Introduces the field of clinical laboratory sciences. Required for Clinical Laboratory Sciences majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
CLS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
CLS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
CLS	310	Principles of Clinical Chemistry I	Theory and application of principles of clinical chemistry, with emphasis on lab techniques, pathophysiology, methods of analysis, and assessment of procedure. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
CLS	320	Principles of Clinical Microbiology I	Theory and application of principles of clinical microbiology with emphasis on isolation and identification of medically significant fungi and bacteria. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
CLS	330	Principles of Clinical Hematology I/Body Fluids	Theory and application of principles in hematology, with emphasis on techniques to evaluate blood dyscrasias and analyze body fluids.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
CLS	410	Principles of Clinical Chemistry II	Continuation of CLS 310 with emphasis on principles of advanced clinical chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
CLS	411	Advanced Applications of Clinical Chemistry	Clinical application of theory/techniques from CLS 310 and 410. Emphasizes operation of common lab instrumentation and clinical correlation. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	420	Principles of Clinical Microbiology II	Disease mechanisms and identification of medically significant parasites, Mycobacteria, Actinomycetes, Chlamydia, Rickettsia, Mycoplasma, and viruses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
CLS	421	Advanced Applications of Clinical Microbiology	Practical lab application of the principles of specimen collection, processing, detection, identification, and antimicrobial testing of medically significant bacteria, fungi, and parasites. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	430	Principles of Clinical Hematology II/Hemostasis	Theory and applications of principles in hematology with emphasis on etiology, pathophysiology, clinical manifestations, and treatment of blood dyscrasias/hemostatic defects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
CLS	431	Advanced Applications of Clinical Hematology	Practical lab application of methods/techniques used to evaluate and diagnose blood dyscrasias/hemostatic defects. Applied techniques in body fluid analysis. Minimum 180 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	440	Principles of Clinical Immunology/Immunohematology	Theoretical and practical application of clinical immunology and immunohematology. Emphasizes serological techniques that aid disease diagnosis and blood donor selection.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
CLS	441	Advanced Applications of Clinical Immunology/Immunohematology	Practical lab application of the principles of serological methods used in diagnosing disease and selecting blood components for transfusion therapy. Minimum 135 hours practicum.	N	PRA	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
CLS	450	Principles of Clinical Laboratory Administration	Principles of management, emphasizing the clinical lab. Basic management process, personnel supervision, identification, and allocation of resources. Both CLS 450 and 460 must be taken to secure L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	
CLS	460	Principles of Clinical Laboratory Education	Principles of learning, with application to the development of instructional objectives, strategies, and evaluation for teaching-learning situations in the lab. Both CLS 450 and 460 must be taken to secure L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	
CLS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
CMN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
CMN	502	Theory and Practice in Communication and Persuasion	Theoretical exploration of communicative and persuasive practices as applied in various contexts. Surveys classical, modern, and contemporary theories of persuasion.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	505	Methods in Applied Communication Research	Examines the intellectual, practical, and ethical dimensions of engaging in applied research. Emphasizes empirical and quantitative methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	506	Humanistic Inquiry and Field Research in Communication	Examines interpretive, critical, and rhetorical approaches to communication and advocacy, including hermeneutics, ethnography, and cultural studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CMN	515	Ethical Issues in Communication Advocacy	Examines the ethical issues or concerns related to communication advocacy. Variable topics; examines research, theory, and/or practice.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
CMN	516	Mediation and Dispute Resolution	Examines advocacy's role in fair negotiation and effective and successful dispute resolution. Examines research, theory, and/or practice.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisite: Communication Studies Master of Arts student
CMN	520	Communication Campaigns	Explores public communication strategies aimed at advocating for general or specific audiences and/or for particular issues and causes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Communication Studies Master of Arts student; CMN 502 or COM 502 with C or better
CMN	522	Argumentation and Advocacy	Introduces various models of argumentation and their applications to various spheres of advocacy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
CMN	531	Communication and Social Change	Examines human communication and technologies of communication as agents of social change within groups, communities, organizations, and/or cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
CMN	532	Advocacy in Interpersonal Settings	Examines particular relational contexts in which advocacy plays a pronounced role (e.g., personal, family, and service provider relationships).	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
CMN	550	Advocacy in Organizational Settings	Examines issues of upward influence, the expression of dissent, and grievance systems within organizational contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
CMN	551	Democracy and Power in Organizations	Examines structural, historical, relational, and symbolic dimensions of organizational communication and discourses that foster or impede communication advocacy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Communication Studies Master of Arts student; CMN 502 or COM 502 with C or better
CMN	557	Communication and Technology	Assesses technology's role in the social dynamics of human interaction. Emphasizes the impact of technology with regard to communication advocacy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
CMN	565	Globalization and Advocacy	Explores the forces leading to increased intergroup contact and their impact on social, economic, and political dynamics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
CMN	570	Communication and Advocacy in Social Context	Variable topics course exploring the intersection of communication and advocacy in specific contexts not addressed in other elective courses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
CMN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
CMN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-6		Pre-requisite: Communication Studies Master of Arts student
CMN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	RSC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		Pre-requisite: Communication Studies Master of Arts student
CMN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1.		Pre-requisite: Communication Studies Master of Arts student
CMN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-4		Pre-requisite: Communication Studies Master of Arts student
CMN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-6		Pre-requisite: Communication Studies Master of Arts student
COE	501	Introduction to Research and Evaluaton in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	502	Introduction to Data Analysis	Descriptive statistics, visual approaches, estimation, and inferential methods for univariate and bivariate educational research problems. Experience using statistical software.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate

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COE	503	Introduction to Qualitative Research	Terminology, historical development, approaches (including ethnography, ethnomethodology, critical theory, grounded theory, and hermeneutics), and qualitative versus quantitative social sciences; methods of inquiry.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
COE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		
COE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		
COE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
COE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
COE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
COE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	
COM	110	Elements of Interpersonal Communication	Demonstration and practice of communicative techniques in establishing and maintaining interpersonal relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a GPA of greater than or equal to 2.25
COM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisite: Maximum 24 earned hours
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: COM 100 with C or better; minimum gpa of 2.50
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: ENG 101, 105 or 107 with C or better
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.25 GPA

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COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	263	Elements of Intercultural Communication	Basic concepts, principles, and skills for improving communication among persons from different minority, racial, ethnic, and cultural backgrounds.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C & G	Pre-requisite: Minimum 2.25 GPA
COM	271	Voice Improvement	Intensive personal and group experience to improve normal vocal usage, including articulation and pronunciation.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	281	Communication Activities	Nongraded participation in forensics or interpretation cocurricular activities. Maximum 3 semester hours each semester.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		
COM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	298	Honors Directed Study		N	PRA	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		Pre-requisites: Must be an Honor student
COM	300	Communication in Interdisciplinary Studies	Examines and analyzes communication in the context of other academic disciplines. Open to BIS majors only.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: BIS student; Minimum Sophomore standing; Minimum 2.00 GPA; COM 100 and COM 225 with C or better or COM 259 with C or better
COM	301	Introductory Theories and Principles of Communication: Communication in Relationships, Organizations	Integrated introduction to the theories and principles of communication in public, interpersonal, and organizational contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3-9		
COM	308	Advanced Research Methods in Communication	Advanced communication research methods, including quantitative, qualitative, and critical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: COM 207 with C or better; MAT 117 or an MA general studies course with C or better; Minimum cumulative GPA of 2.50
COM	310	Relational Communication	Explores communication issues in the development of personal relationships. Current topics concerning communication in friendship, romantic, and work relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 with C or better
COM	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a GPA of 2.50 or greater; Must have completed COM 100 with a grade of C or greater
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	317	Nonverbal Communication	Study of communication using space, time, movement, facial expression, touch, appearance, smell, environment, objects, voice, and gender/cultural variables. Not open to students with credit in COM 294 ST: Beyond Words.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 or COM 207 with C or better
COM	319	Persuasion and Social Influence	Variables that influence and modify attitudes and behaviors of message senders and receivers, including analysis of theories, research, and current problems.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Must have a Cumulative GPA of 2.50 or greater; Communication students must have completed COM 207 with C or better. Students who have credit for CMN 329, many not enroll in COM 319
COM	320	Communication and Consumerism	Critical evaluation of messages designed for public consumption. Perceiving, evaluating, and responding to political, social, and commercial communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.50 GPA
COM	321	Rhetorical Theory and Research	Historical development of rhetorical theory and research in communication, from classical antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	(L or HU) & H	Pre-requisites: COM 100 with C or better; ENG 101, 105, 107 or 111 with C or better; Minimum 2.50 GPA
COM	323	Communication Approaches to Popular Culture	Critical analysis of popular culture within social and political contexts; emphasizes multicultural influences and representations in everyday life.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	C	Pre-requisites: Must have a minimum cumulative GPA of 2.50; Must have completed COM 100 with a grade of C or greater
COM	325	Advanced Public Speaking	Social and pragmatic aspects of public speaking as a communicative system; strategies of rhetorical theory and the presentation of forms of public communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	L	Pre-requisites: COM 225 or COM 259 with C or better; Minimum 2.50 GPA
COM	326	Court Room Oratory	Increases knowledge and appreciation of the role of communication in the development of legal and public policies.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	341	Social Contexts for Performance	Adaptation and performance of literature for the community outside the university. Research into the practical uses of performed literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	344	Performance of Oral Traditions	Cultural beliefs and values studied through ethnographic research and performance of personal narratives, folklore, myths, legends, and other oral traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU & C	Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & C & G	Pre-requisites: Minimum 2.50 GPA; COM 263 with C or better
COM	382	Classroom Apprenticeship	Nongraded credit for students extending their experience with a content area by assisting with classroom supervision in other COM courses.	N	PRA	N	YGB	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU & C	Prerequisites : Interdisciplinary Studies or Business Communication student; Sophomore or higher; Minimum GPA of 2.00; COM 100 and COM 225 OR only COM 259 with a C or better
COM	404	Research Apprenticeship	Direct research experience on faculty projects. Student/faculty match based on interests.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	407	Advanced Critical Methods in Communication	Examines critical approaches relevant to communication, including textuality, social theory, cultural studies, and ethnography.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA of greater than or equal to 2.50; Must have completed COM 308 with a grade of C or greater
COM	408	Quantitative Research Methods in Communication	Advanced designs, measurement techniques, and methods of data analysis of communication research.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must have a cumulative GPA greater than or equal to 2.50; Must have completed COM 308 with a C or better
COM	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 207 with C or better
COM	414	Crisis Communication	Role of communication in crisis development and intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	421	Rhetoric of Social Issues	Critical rhetorical study of significant speakers and speeches on social issues of the past and present.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: COM 308 or COM 309 with C or better; COM 321 or 323 with C or better; Minimum 2.50 GPA
COM	426	Political Communication	Theories and criticism of political communication; including campaigns, mass persuasion, propaganda, and speeches. Emphasizes rhetorical approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisite: Minimum 2.50 GPA
COM	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	441	Performance Studies	Theory, practice, and criticism of texts in performance. Emphasizes the interaction among performer, text, audience, and context.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Minimum 2.50 GPA; COM 241 and COM 308 with C or better
COM	442	Identity, Performance, and Human Communication	Explores communication dimensions of self and others as performance. Examines topics that include gender, race, sexuality, age, and ethnicity through performance.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: COM 225 (or COM 241); Minimum 2.50 GPA
COM	445	Narrative Performance	Theory and practice of performing narrative texts (e.g., prose fiction, oral histories, diaries, essays, letters). Includes scripting, directing, and the rhetorical analysis of storytelling.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	HU	Pre-requisites: Minimum 2.50 GPA; COM 241 with C or better
COM	446	Performance of Literature Written by Women	Explores, through performance and critical writing, literature written by women.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	(L or HU) & C	Pre-requisite: Minimum 2.50 GPA
COM	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB	Pre-requisites: COM 308 or COM 309 with C or better; Minimum 2.50 GPA
COM	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate and image creation.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Minimum 2.50 GPA
COM	463	Intercultural Communication Theory and Research	Survey and analysis of major theories and research dealing with communication between people of different cultural backgrounds, primarily in international settings.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.	SB & G	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	465	Intercultural Communication Workshop	Experientially based study of communication between members of different cultures designed to help students improve their intercultural communication skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisite: Minimum 2.50 GPA
COM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	GNA	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisites: Communications students only and have completed 56 or more hours; Minimum cumulative GPA of 2.50; COM 225 and COM 308 with a C or better
COM	492	Honors Directed Study		Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		Pre-requisites: Must be an Honors student
COM	493	Honors Thesis		N	PRA	N	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6	L	Pre-requisites: Must be an Honors student
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		Pre-requisite: Minimum 2.50 GPA
COM	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-6		
COM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-7		
COM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-3		Pre-requisites: Must have a minimum cumulative GPA of 2.50
COM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	501	Research Methods in Communication	Critical analysis of systems of inquiry in communication, focusing on the identification of variables and approaches to conducting research in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	504	Theories and Models in Communication	Theory construction, metatheoretical concerns, models, construct definition, and comparative analysis of current theories in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	508	Quantitative Research Methods in Communication	Empirical research designs, measurements, and statistical strategies and techniques in analyzing and evaluating experimental and descriptive research in communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must be a Graduate Communications student
COM	509	Qualitative Research Methods in Communication	Qualitative research methods, including interviewing, field methods, and other nonquantitative techniques for analyzing communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisites: Must be a Graduate Communications student
COM	521	Rhetorical Criticism of Public Discourse	History and significance of rhetorical theory and criticism in the analysis of public discourse.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications Graduate student
COM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications Graduate student
COM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1.		
COM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-4		
COM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	PRA	Y	Z2	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	604	Theory Construction in Communication	Review and analysis of philosophical problems inherent in communicative research and of metatheories designed to deal with these problems.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	607	Contemporary Rhetorical Methods	Analysis of issues in the practice of rhetorical communication research, including criticism and scholarship.	N	SEM	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		
COM	608	Multivariate Statistical Analysis of Data in Communication	Statistical analysis of communication research data. Multivariate procedures used in communication research and methods of causal analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	609	Advanced Qualitative Research Methods in Communication	Analysis of issues in the practice of qualitative communication research, including data gathering, fieldwork issues, analysis strategies, and reporting results.	N	LEC	N	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	3.		Pre-requisite: Communications PhD student
COM	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications PhD student
COM	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisite: Communications Graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		Pre-requisites: Communications PhD student; COM 600 or COM 608 with B or better; COM 601 or COM 700 with B or better
COM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-12		
COM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-15		
COM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1.		
COM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	PRA	Y	Z2	Liberal Arts and Sciences	Hugh Downs School of Human Communication	1-15		
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
COM	124	Media and Culture	Introduces contemporary intercultural issues as expressed through various media in American society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	C	
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: COM 100 with C or better; minimum gpa of 2.50
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: ENG 101, 105 or 107 with C or better
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-req 25 minimum hours
COM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
COM	308	Advanced Research Methods in Communication	Advanced communication research methods, including quantitative, qualitative, and critical approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: COM 207 with C or better; MAT 117 or an MA general studies course with C or better; Minimum cumulative GPA of 2.50
COM	309	Rhetorical, Interpretive, and Critical Methods in Communication	Examines humanistic and qualitative approaches to communication. Introduces textual, interactional and ethnographic methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have GPA of 2.0 or greater
COM	310	Relational Communication	Explores communication issues in the development of personal relationships. Current topics concerning communication in friendship, romantic, and work relationships.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 with C or better
COM	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have a GPA of 2.50 or greater; Must have completed COM 100 with a grade of C or greater
COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	317	Nonverbal Communication	Study of communication using space, time, movement, facial expression, touch, appearance, smell, environment, objects, voice, and gender/cultural variables. Not open to students with credit in COM 294 ST: Beyond Words.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 or COM 207 with C or better

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COM	319	Persuasion and Social Influence	Variables that influence and modify attitudes and behaviors of message senders and receivers, including analysis of theories, research, and current problems.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have a Cumulative GPA of 2.50 or greater; Communication students must have completed COM 207 with C or better. Students who have credit for CMN 329, may not enroll in COM 319
COM	320	Communication and Consumerism	Critical evaluation of messages designed for public consumption. Perceiving, evaluating, and responding to political, social, and commercial communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: Minimum 2.50 GPA
COM	321	Rhetorical Theory and Research	Historical development of rhetorical theory and research in communication, from classical antiquity to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(L or HU) & H	Pre-requisites: COM 100 with C or better; ENG 101, 105, 107 or 111 with C or better; Minimum 2.50 GPA
COM	324	Rhetoric and Media Criticism	Critical examination of media arts, including cinema, television, and video. Applies rhetorical, textual, and interpretive methods of criticism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
COM	325	Advanced Public Speaking	Social and pragmatic aspects of public speaking as a communicative system; strategies of rhetorical theory and the presentation of forms of public communication.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: COM 225 or COM 259 with C or better; Minimum 2.50 GPA
COM	353	Professional Communication	Introduces both verbal and written professional communication styles and technologies in preparation for communication-related internships and careers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C & G	Pre-requisites: Minimum 2.50 GPA; COM 263 with C or better
COM	382	Classroom Apprenticeship	Nongraded credit for students extending their experience with a content area by assisting with classroom supervision in other COM courses.	N	PRA	N	YGB	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
COM	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 207 with C or better
COM	414	Crisis Communication	Role of communication in crisis development and intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.50 GPA
COM	416	Gender, Race, Colonialism, and Media	Explores how the mass media constructs gender and race and perpetuates colonial views of minorities and varied nationalities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
COM	417	Communication and Aging	Critical study of changes in human communicative patterns through the later adult years, with attention on intergenerational relationships and self-concept functions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.0 GPA
COM	421	Rhetoric of Social Issues	Critical rhetorical study of significant speakers and speeches on social issues of the past and present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU	Pre-requisites: COM 308 or COM 309 with C or better; COM 321 or 323 with C or better; Minimum 2.50 GPA
COM	422	Advanced Argumentation	Advanced study of argumentation theories and research as applied to public forums including: political, business, and legal contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: Must be a Junior and have a GPA of 2.0 or greater, AND completed ENG 101 or 105 with a grade of C or greater
COM	424	Television Studies and Criticism	Surveys critical and historical approaches to television as a medium; to television research; and to television's effects.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: COM 309 or COM 407 with C or better; Minimum 2.0 GPA
COM	429	Semiotics and Visual Communication	Semiotic analysis of mediated forms of communication, including film, television, and photography. Includes the political and aesthetic dimensions of images.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: COM 309 or COM 407 with C or better; Minimum 2.0 GPA
COM	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.50 GPA
COM	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: COM 308 or COM 309 with C or better; Minimum 2.50 GPA
COM	451	Employee Participation Processes in Organizations	Communication principles and practices associated with employee empowerment, team-based organizing, and similar employee involvement processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: COM 308 or COM 309 with C or better; minimum GPA of 2.0
COM	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.50 GPA
COM	454	Rhetorical and Critical Approaches to Public Relations	An historical and contemporary account of how public relations messages build corporate identities and persuade audiences by shaping public values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: COM 309 or COM 407 with C or better; Minimum 2.0 GPA
COM	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate and image creation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Minimum 2.50 GPA
COM	457	New Media	Explores how new communication and information technologies affect communication and culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: COM 309 or COM 407 with C or better; Minimum 2.0 GPA
COM	463	Intercultural Communication Theory and Research	Survey and analysis of major theories and research dealing with communication between people of different cultural backgrounds, primarily in international settings.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
COM	465	Intercultural Communication Workshop	Experientially based study of communication between members of different cultures designed to help students improve their intercultural communication skills.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-requisite: Minimum 2.50 GPA
COM	471	International Communication	Explores the political, economic, sociocultural, and communicative dimensions of mediated communication across borders and the processes of globalization.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	Pre-requisites: Minimum 2.0 GPA; CMN 463 or COM 463 with C or better
COM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	GNA	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		Pre-requisites: Communication studies major or Public Relations and Strategic Communication minor students; minimum 56 hours; minimum cumulative GPA of 2.80; COM 225 (CMN 225) with C or better; COM 308 or COM 309 with C or better
COM	492	Honors Directed Study		Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		Pre-requisites: Must be an Honors student
COM	493	Honors Thesis		N	PRA	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisite: Minimum 2.50 GPA
COM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
COM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
COM	100	Introduction to Human Communication	Topics-oriented introduction to basic theories, dimensions, and concepts of human communicative interaction and behavior.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	110	Elements of Interpersonal Communication	Demonstration and practice of communicative techniques in establishing and maintaining interpersonal relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have a GPA of greater than or equal to 2.25
COM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
COM	207	Introduction to Communication Inquiry	Bases of inquiry into human communication, including introduction to notions of theory, philosophy, problems, and approaches to the study of communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: COM 100 with C or better; minimum gpa of 2.50
COM	222	Argumentation	Philosophical and theoretical foundations of argumentation, including a comparison of models of advocacy and evidence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisite: ENG 101, 105 or 107 with C or better
COM	225	Public Speaking	Verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of public communication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 101, 105 or 107 with C or better
COM	230	Small Group Communication	Principles and processes of small group communication, attitudes, and skills for effective participation and leadership in small groups, small group problem solving, and decision making.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
COM	241	Introduction to Oral Interpretation	Communication of literary materials through the mode of performance. Verbal and nonverbal behavior, interface of interpreter with literature and audience, and rhetorical and dramatic analysis of literary modes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Minimum 2.25 GPA; ENG 101, 105 or 107 with C or better
COM	250	Introduction to Organizational Communication	Introduces the study of communication in organizations, including identification of variables, roles, and patterns influencing communication in organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisite: Minimum 2.25 GPA
COM	259	Communication in Business and the Professions	Interpersonal, group, and public communication in business and professional organizations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Non-Communication students only; Must have 25 or greater earned hours
COM	263	Elements of Intercultural Communication	Basic concepts, principles, and skills for improving communication among persons from different minority, racial, ethnic, and cultural backgrounds.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisite: Minimum 2.25 GPA
COM	300	Communication in Interdisciplinary Studies	Examines and analyzes communication in the context of other academic disciplines. Open to BIS majors only.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: BIS student; Minimum Sophomore standing; Minimum 2.00 GPA; COM 100 and COM 225 with C or better or COM 259 with C or better
COM	301	Introductory Theories and Principles of Communication: Communication in Relationships, Organizations	Integrated introduction to the theories and principles of communication in public, interpersonal, and organizational contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3-9		
COM	308	Advanced Research Methods in Communication	Advanced communication research methods, including quantitative, qualitative, and critical approaches.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: COM 207 with C or better; MAT 117 or an MA general studies course with C or better; Minimum cumulative GPA of 2.50
COM	310	Relational Communication	Explores communication issues in the development of personal relationships. Current topics concerning communication in friendship, romantic, and work relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 with C or better
COM	312	Communication, Conflict, and Negotiation	Theories and strategies of communication relevant to the management of conflicts and the conduct of negotiations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have a GPA of 2.50 or greater; Must have completed COM 100 with a grade of C or greater

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COM	316	Gender and Communication	Introduces gender-related communication. Examines verbal, nonverbal, and paralinguistic differences and similarities within social, psychological, and historic perspectives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Pre-requisite: Minimum 2.50 GPA
COM	317	Nonverbal Communication	Study of communication using space, time, movement, facial expression, touch, appearance, smell, environment, objects, voice, and gender/cultural variables. Not open to students with credit in COM 294 ST: Beyond Words.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Minimum 2.50 GPA; COM 100 or COM 207 with C or better
COM	371	Language, Culture, and Communication	Cultural influences of language on communication, including social functions of language, bilingualism, biculturalism, and bidialectism.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C & G	Pre-requisites: Minimum 2.50 GPA; COM 263 with C or better
COM	382	Classroom Apprenticeship	Nongraded credit for students extending their experience with a content area by assisting with classroom supervision in other COM courses.	N	PRA	N	YGB	School of Letters & Sciences	School of Letters and Sciences	1-6		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		Pre-requisites: Must have a Cumulative GPA of 2.50 or greater
COM	400	Communication in Professions	Specialized study of communication processes in professional and organizational settings.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	Prerequisites : Interdisciplinary Studies or Business Communication student; Sophomore or higher; Minimum GPA of 2.00; COM 100 and COM 225 OR only COM 259 with a C or better
COM	410	Interpersonal Communication Theory and Research	Survey and analysis of major research topics, paradigms, and theories dealing with message exchanges between and among social peers.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 308 with C or better
COM	411	Communication in the Family	Broad overview of communication issues found in marriage and family life, focusing on current topics concerning communication in the family.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Minimum 2.50 GPA; COM 207 with C or better
COM	421	Rhetoric of Social Issues	Critical rhetorical study of significant speakers and speeches on social issues of the past and present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Pre-requisites: COM 308 or COM 309 with C or better; COM 321 or 323 with C or better; Minimum 2.50 GPA
COM	430	Leadership in Group Communication	Theory and process of leadership in group communication, emphasizing philosophical foundations, contemporary research, and applications to group situations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisite: Minimum 2.50 GPA
COM	450	Theory and Research in Organizational Communication	Critical review and analysis of the dominant theories of organizational communication and their corollary research strategies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: COM 308 or COM 309 with C or better; Minimum 2.50 GPA
COM	453	Communication Training and Development	Examines the procedures and types of communication training and development in business, industry, and government.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisite: Minimum 2.50 GPA
COM	492	Honors Directed Study		Y	PRA	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6		Pre-requisites: Must be an Honors student
COM	493	Honors Thesis		N	PRA	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
COM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		Pre-requisite: Minimum 2.50 GPA
CON	100	Introduction to Construction	Introduces construction industry sectors and professionals. Additional content includes developing personal competencies required of construction professionals.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	2.		
CON	101	Construction and Culture: a Built Environment	Analyzes the cultural context of construction, emphasizing its centrality in the evolution and expansion of built environments as expressions of ethical and historical value systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	HU & H & G	
CON	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-3		
CON	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	221	Applied Statics	Vectors, forces and moments, force systems, equilibrium, analysis of basic structures and structural components, friction, centroids, and moments of inertia.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: PHY 111 and PHY 113 and MAT 265 (or MAT 270) with C or better
CON	223	Strength of Materials	Analyzes strength and rigidity of structural members in resisting applied forces. Stress, strain, shear, moment, deflections, combined stresses, and connections.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: CON 221 with C or better
CON	241	Surveying	Theory and fieldwork in construction and land surveys.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: MAT 265 or MAT 270 with C or better
CON	243	Heavy Construction Equipment, Methods, and Materials	Emphasizes Horizontal construction. Fleet operations, maintenance programs, methods, and procedures to construct tunnels, roads, dams, and the excavation of buildings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	251	Microcomputer Applications for Construction	Applies the microcomputer as a problem-solving tool for the constructor. Uses spreadsheets, information management, and multimedia software. fee	N	LAB	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: MAT 265 or MAT 270 with C or better
CON	252	Building Construction Methods, Materials, and Equipment	Emphasizes Vertical construction. Methods, materials, codes, and equipment used in building construction corresponding to the division of the CSI Master Format.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	271	Construction Safety	Safety procedures and equipment. OSHA requirements for construction. Biological aspects of construction safety.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: CON 252 with D or better; CON 243 with C or better
CON	273	Electrical Construction Fundamentals and Project Management	Electrical construction, design, estimating, scheduling and project management. Electrical safety, blueprints and symbols, theory, sequence of installation. National Electrical Code (NEC).	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	296	Field Internship	Participation as interns on construction projects to observe and experience the daily activities. fee	N	PRA	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1.		Pre-requisites: Construction students only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CON	301	Megaprojects and Their Impacts on Society	World survey of construction megaprojects and their impacts on the environment, technology, local and global economies, and local culture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering BS/BSE students and must have completed COM 225 with a grade of D or better or be currently enrolled
CON	302	Construction Workforce Issues	Examines issues and forces that have shaped today's construction workforce, including relations among gender, racial, ethnic, and class groups.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering BS/BSE students and must have completed COM 225 with a grade of D or better or be currently enrolled
CON	310	Testing of Materials for Construction	Structural and behavioral characteristics, engineering properties, measurements, and application of construction materials. Not open to engineering students.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: Construction BS student; CON 221 with C or better; CON 223 with C or better
CON	341	Surveying	Theory and fieldwork in construction and land surveys. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	345	Mechanical Systems	Design parameters and equipment related to heating and cooling systems for mechanical construction. Biorelated aspects of mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: Construction BS student; PHY 111 (or PHY 121) with C or better; PHY 113 (or PHY 122) with C or better; CON 221 with C or better; CON 252
CON	377	Residential Construction Production Procedures	Process used in residential construction. How a house is built: design, permits, scheduling, codes, contracting, site management, mechanical/electrical.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS or Design BSD student; CON 221 with C or better; CON 252
CON	383	Construction Estimating	Analyzes construction drawings and specifications. Methods used in estimating process. Quantity surveying techniques for CSI divisions. Discusses ethical practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisites: Construction BS or Housing & Urban Development BSD students; CON 243 and CON 221 with a C or better; CON 252 with a D or better
CON	389	Construction Cost Accounting and Control	Nature of construction cost. Depreciation and tax theory and variable equipment costs. Cash flow theory, investment models, profitability, and analysis. Computer applications. Funding sources and arrangements. Builder's insurance.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	CS	Pre-requisites: Engineering and Design BS and BSD students; CON 221 with C or better; CON 251 with D or better
CON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		Pre-requisite: Engineering BS or BSE student
CON	424	Structural Design	Economic use of concrete, steel, and wood in building and engineered structures. Design of beams, columns, concrete formwork, and connections.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering Construction BS students; CON 223 with C or better; Pre or Co-requisites: CON 310 (with C or better if completed)
CON	446	Marketing for Construction	Provides key marketing practices to include strategic planning, marketing collateral, networking, business development, and interview preparation for project pursuits. Covers all aspects of service-based marketing topics and practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: COM 225; CON 221 with C or better
CON	450	Geotechnical Applications for Construction	Soil formation, engineering properties and use as building materials. Soil's influence on construction of built environment, including specifications and biological aspects. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS students only; Must have completed CON 310 with a grade of D or greater or be currently enrolled
CON	453	Construction Project Management I	Building information modeling, including current computer programs and LEED methodologies for advanced project deliveries.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	4.		Pre-requisite: Construction BS student; CON 271, or CON 371; CON 383 with C or better; Co-requisite: CON 495
CON	455	Construction Project Management II	Advanced topics in administrative procedures, planning processes, and coordination required to successfully complete construction projects on time and budget.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 495 and CON 453 with C or better
CON	468	Mechanical and Electrical Estimating	Analysis and organization of performing a cost estimate for both mechanical and electrical construction projects. Computer usage.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 273; CON 345 and CON 383 with C or better
CON	471	Mechanical and Electrical Project Management	Specialty contracts and agreements, scheduling, material handling, labor unit analysis, and job costing for mechanical and electrical construction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Prerequisite: Construction BS student; CON 453 with C or better
CON	472	Development Feasibility Reports	Integrates economic location theory, development cost data, market research data, and financial analysis into a feasibility report.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	L	Pre-requisite: Construction BS or Design BSD student; REA 380
CON	477	Residential Construction Business Practices	Topics addressed include development, marketing, financing, legal issues, and sales.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering BS or Design BSD student; MKT 382 or MKT 395 with D or better OR CON 446 with C or better; CON 377 with C or better; CON 389 with C or better
CON	483	Advanced Building Estimating	Concepts of pricing and markup, development of historic costs, life cycle costing, change order and conceptual estimating.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction BS student; CON 383 with C or better
CON	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		Pre-requisites: Construction BS students; Must have completed CON296 with D or better or currently enrolled
CON	486	Heavy Construction Estimating	Methods analysis and cost estimation for construction of highways, bridges, tunnels, dams, and other engineering works.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction BS Student; Must have a C or better in CON 383
CON	492	Honors Directed Study		N	RSC	N	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-6		
CON	493	Honors Thesis		N	RSC	N	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-6	L	Pre-requisites: Must be an Honors student
CON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		
CON	495	Construction Planning and Scheduling	Various network methods of project scheduling, such as AOA, AON Pert, bar-charting, line-of-balance, and VPM techniques. Microcomputers used for scheduling, resource allocation, and time/cost analysis. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	CS	Pre-requisites: Engineering and Design BS and BSD students only; Must have completed CON 383 and CON 389 with a grade of C or better
CON	496	Construction Contract Administration	Surveys administrative procedures of general and subcontractors. Studies documentation, claims, arbitration, litigation, bonding, insurance, and indemnification. Discusses ethical practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.	L	Pre-requisites Engineering CON BS students; Must have completed COM 225 with a D or better, and CON 453 with a C or better
CON	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CON	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-3		
CON	501	Construction Research Methods	Data collection methodologies, applied parametric and nonparametric statistics, data analysis techniques, technical writing, and data presentation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	533	Strategies of Estimating and Bidding	Explores advanced concepts of the estimating process, such as modeling and statistical analysis, to improve bid accuracies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Engineering MS/MSE/PHD graduate students
CON	540	Construction Productivity	Productivity concepts. Data collection. Analysis of productivity data and factors affecting productivity. Means for improving production and study of productivity improvement programs.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction MS student; CON 495 with B or better
CON	543	Construction Equipment Engineering	Analyzes heavy construction equipment productivity using case studies. Applies engineering fundamentals to the planning, selection, and utilization of equipment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisites: Construction MS students
CON	545	Construction Project Management	Theory and practice of construction project management. Roles of designer, owner, general contractor, and construction manager.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction MS student; CON 495 with B or better
CON	547	Strategic Planning	Business planning process of the construction enterprise. Differences between publicly held and closely held businesses and their exposure.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	551	Alternative Project Delivery Methods	Design/construction interaction; conceptual estimation and scheduling; the RFQ/RFP process; legal, insurance, risk allocation issues; procurement and selection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	554	Trenchless Construction Methods	Theory and practice of trenchless construction methods. Types of equipment, roles of site personnel, engineering design, contractual issues, and safety. Lecture, class projects, and site visits. Knowledge of heavy construction equipment, methods, and materials required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	561	International Construction	Investigation of the cultural, social, economic, political, and management issues related to construction in foreign countries and remote regions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering Graduate student
CON	563	Facility Management Fundamentals	Operations and maintenance, environmental issues, computerized management and maintenance systems, strategic planning, asset management, construction and design, and LEED/LEED-EB.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	565	Information Measurement Theory I	Simplistic, logical explanations of construction and other industries. State-of-the-art supply chain, profit maximizing, and efficient practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Construction Graduate student
CON	567	Advanced Procurement Systems	Development of multicriteria decision procurement model for selecting the performing contractor.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	570	Introduction to Advanced Technology Facilities	Introduces advanced technology facilities such as cleanrooms, data centers, research labs, and hospitals. The constructor's viewpoint, including: planning, structures, mechanical, and tool installation. Site visits.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	571	Construction of Advanced Technology Facilities	Construction issues for advanced technology facilities such as cleanrooms, data centers, research labs, and hospitals. Issues include scheduling, cost estimating, project management, mechanical, safety, commissioning and tool hookup. Site visits.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: CON 570 with C or better
CON	575	Information Technology in Construction	Uses virtual construction methodologies to improve the construction enterprise using communications, facility modeling, and decision making. Site visits.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		
CON	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	589	Construction Company Financial Control	Financial accounting and cost control at the company level in construction companies. Accounting systems. Construction project profit calculations. Financial analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	3.		Pre-requisite: Engineering MS, MSE or PHD student
CON	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CON	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Del E. Webb Construction	1.		
CON	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-4		Pre-requisite: Engineering MS/MSE/PHD Students
CON	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	700	Research Methods	Course on research methods in a specific discipline.	N	RSC	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	SEM	Y	GNA	Ira A. Fulton Engineering	Del E. Webb Construction	1-12		
CON	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-15		
CON	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Del E. Webb Construction	1-15		
CPI	430	Social Simulation	Introduces computer simulation and agent-based modeling to study social systems. Credit is allowed for only CPI 430 or ASB 430.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	Pre-requisites: CPI 200 with C or better; Students who have credit for ASB 430 or AML 430, may not enroll in CPI 430
CPI	101	Introduction to Informatics	Concepts, tools, techniques, and applications of informatics. Includes overview of programming, data management, visualization, modeling, and social implications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	111	Game Development I	Introduces video game design, art theory, and concepts as they apply to video game development. Basic art principles used in game development. Covers the fundamental video game art principles of 2-D and 3-D composition, color theory, modeling, and lighting techniques. Demonstrates practical application of these art fundamentals in establishing style guides, concept art, storyboards, and in-game assets. Also includes game design, game production, asset production, and game programming. Hands-on experience by creating 2-D game prototypes belonging to different video game genres and evaluating the techniques.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	200	Mathematical Foundations of Informatics	Practical introduction to the mathematics necessary for studies in informatics. Topics include discrete math, analytic geometry, calculus, and linear algebra.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	MA	Pre-requisites: MAT 117, 170, 210, 260, 265 or 270 with a C or better OR the Unified Placement Test with a score of 75 or higher
CPI	211	Game Development II	Introduces multiplayer games, artificial intelligence, and tile-based worlds using Macromedia Flash. Uses ActionScript tool to automate, repeat, change, anticipate, and govern the action of games from a simple word game to a complicated multiplayer game like pool. Introduces gaming terminology and basic genres, enhancements such as fine-tuning graphics, creating optimal soundtracks, and using high score lists, as well as creating and modifying online chat files.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: Computer Gaming Certificate student or BIS student with Computer Gaming emphasis; CPI 111 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CPI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	310	Information and Data Management	Entity-relationship modeling, relational database design, relational algebra, SQL, XML, object-oriented modeling, and data management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites:CPI 200 with a grade of C or better or currently enrolled
CPI	311	Game Engine Development	State-of-the-art techniques for computer game design and programming with an emphasis on 3-D graphics and interaction. Focuses on a practical, example-driven approach to learning the unique art of 3-D game development. Topics include graphics game engines, textures, shader programming, artificial intelligence, physics, modeling, sound effects, and techniques for user interfaces.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 211 with a C or better
CPI	321	Fundamentals of Game Art	Introduces art theory and concepts as they apply to video game development. Covers 2-D and 3-D composition, color theory, modeling, and lighting techniques. Demonstrates practical application of these art fundamentals in establishing style guides, concept art, storyboards, and in-game assets.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 211 with C or better
CPI	360	Decision Making and Problem Solving	Practical use of database systems, computer graphics, and modeling to inform decision making.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: CPI 200 with C or better
CPI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	400	Scientific Computing and Visualization	Introduces scientific computing and visualization, supported by data acquisition, geometric modeling, and computer graphics. Covers the necessary mathematical foundations, data structures, and algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: CPI 101 with C or better; CPI 200 with C or better
CPI	411	Graphics for Games	Examines real-time rendering of high-quality interactive graphics. Studies advances in graphics hardware and algorithms that make this possible. Examples of techniques and topics include nonphotorealistic rendering, occlusion culling, level of detail, terrain rendering, shadow generation, image-based rendering, and physical simulation. Helps students add graphics-related features to the game architecture developed in CPI 311.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 311 with a C or better
CPI	412	Cognitive Systems and Intelligent Agents	Advanced concepts and techniques of rule-based programming and agent architectures, incorporating ideas from artificial intelligence, cognitive psychology, and linguistics, along with their use in creating intelligent synthetic characters for interactive games and other virtual environments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 311 with a C or better
CPI	420	Technology and Society	Introduces cultural, ethical, and policy issues raised by the penetration of electronic information and communications systems into all aspects of contemporary society.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: CPI 101 with D or better or currently enrolled
CPI	421	3-D Modeling and Texturing	Provides working knowledge of 3-D modeling, texture mapping, and paint concepts for the creation of 3-D video games art assets. Students work on concepts such as 3-D lighting, high polygon mesh rendering, and various third-party software and how to integrate them into the asset production pipeline.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 321 with C or better
CPI	422	3-D Animation and Rigging for Video Games	3-D rigging, skinning, and 3-D animation techniques for video game development. Includes rotoscoping for character animation, animation loops, and integration of motion capture data, as well as prop animation. Covers operation of 3-D cameras and 3-D rendering.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisites: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 321 with C or better
CPI	441	Gaming Capstone	Industry-oriented course emphasizing the video game development process, technical skills, teamwork and communication among the students enrolled in the gaming certificate. Students partner with local industry involved in game development, visual art, and educational gaming and solve real-world problems by working in a team comprised of students from the three tracks available within the certificate.	N	LEL	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.		Pre-requisite: Computer Gaming Certificate or BIS Computer Gaming concentration student; CPI 411, CPI 412, CPI 421, CPI 422 or DCI 451 with C or better
CPI	470	Application of Modeling and Visualization	Applies modeling, computing, and visualization techniques to real data; presents results in a meaningful visual environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1.		Pre-requisite: CPI 400
CPI	480	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	3.	CS	
CPI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-12		
CPI	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1.		
CPI	493	Honors Thesis		N	THE	N	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-6	L	Pre-requisites: Must be an Honors student
CPI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computing and Informatics Program	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CPI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computing and Informatics Program	1-4		
CPI	101	Introduction to Informatics	Concepts, tools, techniques, and applications of informatics. Includes overview of programming, data management, visualization, modeling, and social implications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
CPI	200	Mathematical Foundations of Informatics	Practical introduction to the mathematics necessary for studies in informatics. Topics include discrete math, analytic geometry, calculus, and linear algebra.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 117, 170, 210, 260, 265 or 270 with a C or better OR the Unified Placement Test with a score of 75 or higher
CPI	310	Information and Data Management	Entity-relationship modeling, relational database design, relational algebra, SQL, XML, object-oriented modeling, and data management.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:CPI 200 with a grade of C or better or currently enrolled
CPI	420	Technology and Society	Introduces cultural, ethical, and policy issues raised by the penetration of electronic information and communications systems into all aspects of contemporary society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: CPI 101 with D or better or currently enrolled
CPP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-4		
CPP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-12		
CPP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	College of Public Programs	1-12		
CPY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	613	Child Counseling	Applies counseling theory in working with children in clinics and elementary schools. Integrated practicum available with instructor approval.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	622	Group Counseling	Theories and methodologies used in group counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY622
CPY	623	Counseling At-Risk Youth	Examines the behaviors that place adolescents at risk for not achieving career goals and interventions to address these behaviors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CPY	634	Organizational Development and Planned Change	Organizational/individual dynamics, including theory, analysis, techniques, and consultation/intervention strategies used in organizational development.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Technology and Innovation or Fulton Engineering Graduate student
CPY	644	Psychology of Careers	Advanced career counseling, including theory, research, and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate; CED 577
CPY	645	Professional Issues and Ethics	Ethical, legal, and professional issues of concern to practitioners and researchers functioning in a variety of settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	650	Counseling Latinos	Survey course addressing mental health concerns and perspectives for individuals and families of Latino, Spanish-speaking origin.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: CED 522
CPY	651	Personality Assessment	Training in the use of major objective personality instruments to assess psychological symptoms; emphasizes MMPI-2 and MCMI-III.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: CED 523
CPY	660	Prevention and Consultation	Community focus with emphasis on outreach, prevention, psychoeducation, consulting, and advocacy from a systematic multicultural perspective.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Counseling MC or MED student OR Counseling Psychology PhD student
CPY	667	Patterns of Behavior Disorders	Etiology and treatment of a variety of psychological problems, particularly those represented in DSM III-R.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY667
CPY	668	Grant Writing and Grant Makers: The Washington Context	Develops successful proposals for educational research projects. Students gain experience writing for federal agencies, reviewing, and being evaluated on grant proposals.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Credit is allowed for only CPY or HED 668
CPY	670	Individual Differences	Focuses on definitions and assessment of ways humans vary on psychological constructs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	671	Multicultural Counseling	Provides awareness of the influence of sociocultural variables on human development and explores implications for counseling minority populations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	672	Human Diversity: Social Psychological Perspectives	Implications for psychological practice of social, psychological, and biological factors in the development of behavioral differences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	674	Counseling Women	Explores women's development and its implications for counseling. Sexism in mental health, sex differences in diagnosis and psychopathology, and women's particular treatment needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate

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CPY	675	Health and Wellness Counseling	Theory, research, and practice in health and wellness counseling.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisites for CPY675
CPY	676	Social Bases of Behavior	In-depth examination of contemporary research and theory in selected areas of social psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	677	Advanced Counseling	Advanced topics in counseling theory, research, and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate; CED 577 with C or better
CPY	678	Supervision Theory	Models of therapist development and clinical supervision.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
CPY	679	History and Systems of Psychology	Examines the development and differentiation of the discipline of psychology from its origins in philosophy to the present.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	694	Substance Abuse: Therapy and Psychoeducation	Develops knowledge and skills for conducting psychotherapeutic and educational interventions to address substance use disorders and associated concerns.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
CPY	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
CPY	701	Science and Practice of Counseling Psychology	Directed experiences involving the integration of theory, research, and practice in counseling psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	702	Research Methods in Counseling Psychology	Applies experimental and/or quasi-experimental methods to theory construction and treatment evaluation in counseling psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: COE 502
CPY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CPY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate Undergraduate
CRD	610	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability. Considers issues at different scales, ranging from urban to rural, local to global, historical to contemporary. Critically examines the role of public, private, and nonprofit institutions in promoting quality of life.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

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CRD	620	Community Research Methods	Introduces community research methods, with emphasis on methodological questions and techniques relevant to contemporary community-based research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
CRD	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
CRD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-15		
CRD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-15		
CRJ	100	The Justice System	Overview of the justice system. Roles of law enforcement personnel, the courts, and correctional agencies. Philosophical and theoretical views in historical perspective.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	SB	
CRJ	230	The Police Function	Introduces policing in the United States covering the history of police, contemporary police work, and problems in policing.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	240	The Correctional Function	Introduces the structure and function of the corrections system from historical and contemporary perspectives.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		
CRJ	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	302	Research Methods	Focuses on developing and evaluating research designs, data collection, and the relationship between validity and reliability. Also stresses methods for conducting research.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Must have completed CRJ 100, or 301, JUS 100, or 105, or 305 with a grade of C or greater; or be currently enrolled in any one of these
CRJ	303	Statistical Analysis	Introduces the fundamentals and application of descriptive and inferential statistics, with emphasis in the administration of justice area.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	CS	Pre-requisites: MAT 114, 117, 119, 142, 170 or 210 with C or better; CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	304	Criminology	Provides a basic overview of the nature, the causes and consequences, and the theories of criminal behavior.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	305	Women, Crime, and Justice	Studies women as offenders, victims, and professionals in the criminal justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	C	Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	306	Race, Ethnicity, and Justice	Studies minority issues in the criminal justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	C	Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better
CRJ	312	Police and Culture	Covers broad concept of culture, theoretical approaches to police subculture, and major themes that characterize police culture (suspicion, danger, solidarity, and isolationism).	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better or currently enrolled; CRJ 230 (AJS 230) with C or better or currently enrolled
CRJ	314	Innovations in Policing	Examines current theories and research findings that guide police work, and the practical implications of evaluation within police departments.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better or currently enrolled; CRJ 230 (AJS 230) with C or better or currently enrolled
CRJ	315	Police Organization and Management	Provides a thorough understanding of the structure, processes, and behavior of police organizations.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better; CRJ 230 (AJS 230) with C or better
CRJ	320	The Adjudication Function	History and development of courts, trial by jury, and other dispute resolution mechanisms; selection and removal of judges and juries; organization, structure, and jurisdiction of courts; trial and nontrial processes of the judiciary.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: Must have completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or be currently enrolled, or co-enrolled in either of these courses
CRJ	340	Juvenile Justice	Critical examination of the history and development of the juvenile court and the juvenile justice system.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre- or Co-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better if completed
CRJ	350	Law and Social Control	Resolution of social issues through the application of law as an agent of social control. Nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	SB	Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled, or co-enrolled in either of these courses
CRJ	360	Substantive Criminal Law	Criminal liability. Crimes against persons, property, and society. Governmental sanctions of individual conduct as formulated by legislatures and the courts.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre- or Co-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with C or better if completed
CRJ	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	410	Procedural Criminal Law	The criminal process. Constitutional and legal problems associated with arrest, search and seizure, and due process of law.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled
CRJ	420	Imperatives of Proof	Problems and means of establishing identity and fact in relation to arrest, detention, adjudication, sentencing, and correctional case management.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater,
CRJ	441	Prevention of Crime and Delinquent Behavior	Theories of prevention, individual, group, and community approaches: intervention at appropriate stages; contemporary law enforcement, and corrections practices.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled.

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CRJ	442	Community Relations in the Justice System	Focuses on developing an informed plan and policy for incorporating research findings about the surrounding community within various justice services and agencies. Topics include social stratification, minority groups, and victimology.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites:completed AJS 100 or CRJ 100 or 301 or JUS 100 or 105, or 305 with a C or greater, or currently enrolled
CRJ	443	Probation and Community Corrections	Examines the probation and parole functions as well as the numerous and diverse types of community corrections programs.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites:completed AJS 100,or 301,or CRJ 100,or 301,or JUS 100,or 105,or 305 with a C or greater or be currently enrolled in one;and completed AJS 240,or CRJ 240 with a C or greater or be currently enrolled in CRJ 240.
CRJ	461	Domestic Violence	Legal, historical, theoretical, and treatment aspects of domestic violence, including child abuse, woman battering, incest, and marital rape.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled in one of these.
CRJ	462	Gangs	Critical examination of the history and development of gangs, including criminal justice system responses to gangs and gang-related behaviors.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled in one of these.
CRJ	463	Occupational Crime	Overview of major issues in business, professional, and official rule violations. Includes consumer fraud, securities violations, unethical professionalism, and political corruption.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: CRJ 100, CRJ 301, JUS 100, JUS 105 or JUS 305 with a C or better
CRJ	464	Organized Crime	The nature of organized crime and its illegal activities, theories of containment, and efforts by justice agencies to counter its dominance in society.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled.
CRJ	470	Discretionary Justice	Use/abuse, key issues/manifestations of discretion in legal system and other societal institutions. Theoretical/empirical linkages between discretion and discrimination, based on race, ethnicity, and gender.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.	L or SB	Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or enrolled in; and completed ENG 101or 105 with a C or greater
CRJ	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		
CRJ	485	Student Assessment	Students may attend a mid-semester information session on the assessment process. At the end of the semester, students take part in a standardized examination and self-administered survey. Y/E grade only. Students must register for this class their final semester.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	0.		
CRJ	492	Honors Directed Study		N	LEC	N	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-6		
CRJ	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-6	L	Pre-requisites: Must be an Honors student
CRJ	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		
CRJ	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-3		Pre-requisites: completed AJS 100,OR 301,or CRJ100,OR 301,or JUS 100,or 105,or 305 with a C or greater, or be currently enrolled in one of these
CRJ	501	Seminar in Criminal Justice	Overview of the American criminal justice system, with emphasis on policy issues in police, courts, sentencing, corrections.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	502	Seminar in Criminology	Theory and research on the nature, causes, and prediction of criminal careers and events.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	503	Research Methods	Introduces data analysis; overview of research methods used in social science research, including experimental design, survey research, field research, and evaluation research.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	504	Statistical Tools for Criminology and Criminal Justice	Focuses on essential statistical analysis that can be used in criminal justice and related agencies.	N	LEC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	505	Theory and Practice in Criminal Justice	Capstone course for the MA in Criminal Justice; provides a synthesis of the criminal justice system.	N	RSC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	510	Criminal Justice Planning and Program Evaluation	Examines the application of alternative models of strategic planning to the criminal justice system. Covers methods of evaluating criminal justice policies and practices.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	511	Applied Data Analysis in Criminal Justice	Examines a variety of tools used in the analysis of criminal justice data, including GIS mapping.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	512	Seminar in Policing	Graduate-level review of policing and police organizations. Seminar examines research on police strategies and practices designed to address crime.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	513	Seminar in Courts and Sentencing	Overview of the nature, proposed principles, and theoretical doctrine of the courts and sentencing policies in criminal justice.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	514	Seminar in Corrections	Theory, research, and policy issues regarding community-based and institutional correction programs.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students

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CRJ	515	Seminar in Women and Crime	Introduces students to issues regarding women and the criminal justice system, focusing on their roles as offenders, victims and professionals.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	516	Seminar in Criminal Justice Organization and Management	Graduate-level review of policing and police organizations. Seminar examines research on police strategies and practices designed to address crime.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	517	Seminar on Juvenile Delinquency and Juvenile Justice	Examines patterns and correlates of delinquency within the context of theories of delinquency. Reviews the response of the juvenile justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	518	Seminar on Race/Ethnicity, Crime, and Justice	Theoretical perspectives and research on the overrepresentation of racial minorities as victims, offenders, and defendants in the criminal justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	519	Seminar on Victimization	Examines theory and research concerning victimization and consequences for victims, society, and the justice system. Also examines effective responses to victims' post-crime needs.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	520	Seminar on Violent Crime	Examines patterns and correlates of violent crime, as well as prevention strategies and policy implications.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	521	Seminar on the Nature of Crime	Examines patterns and correlates of crime at individual, situational, and aggregate levels. Topics include defining crime, offender typographies, and criminal careers.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	522	Seminar on Gangs and Crime	Theoretical perspectives and research on gangs and crime, and on the role of the community and the criminal justice system in causes and control.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	524	Seminar on Punishment and Society	Examines the fundamental philosophical principles of justice and punishment. Includes a comparative and historical perspective.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	525	Seminar on Life-Course Criminology	Provides an intensive examination of life-course explanations of crime, the life-course perspective and a theoretical orientation, and research methods used in life-course research.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	534	Program Evaluation in Criminal Justice	Covers methods of program evaluation, principles of research design, and evaluation tools and resources.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Criminology and Criminal Justice	1.		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	College of Public Programs	School of Criminology and Criminal Justice	1-4		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	College of Public Programs	School of Criminology and Criminal Justice	1-12		Pre-requisite: Master of Arts in Criminal Justice or Master of Science in Criminology & Criminal Justice or PhD in Criminology & Criminal Justice students
CRJ	601	Seminar on Criminological Theory	Examines historical and contemporary criminological theories.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	602	Seminar on Criminal Justice Policies and Practices	Analyzes responses to crime and the operation of criminal justice system, with emphasis on theory and research on effectiveness of policies and practices of the system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student

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CRJ	603	Advanced Research Design	Exposes students to advanced topics in research design and methodology in preparation for writing the doctoral dissertation.	N	RSC	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	604	Advanced Statistical Analysis	Use and application of advanced statistical techniques and multivariate analysis of data.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	605	Topics in Quantitative Methods	Explores advanced techniques of statistical analysis within the field of criminal justice.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	606	Advanced Topics in Theoretical Criminology	Focuses on criminological theory construction, historical and contemporary theoretical debates within criminology, theory testing, empirical support for theories, and theoretical integration.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	607	Advanced Topics in Policing	Covers the major issues related to policing and police organizations in the United States. Principal focus on policing and police organizations in large cities, with a focus on police organizational structure, police culture, police organizational environment, police decision making and change in the police organization.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	608	Advanced Topics in Courts and Sentencing	Focuses on recent research on charging, plea bargaining, bail decision making, jury decision making and sentencing, as well as the impact of recent reforms directed at the criminal court system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	609	Advanced Topics in Corrections	Provides a critical examination of the theoretical framework underpinning current correctional policy (institutional and community based), as well as advanced, in-depth analyses of contemporary issues surrounding corrections.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	610	Advanced Topics in Juvenile Justice	Examines the meaning of the concept of juvenile delinquency as a separate entity in the criminal justice system. Considers the relationship between social attitudes and definitions of youthful law violation, and reviews studies on various forms of delinquency, such as drug offenses, sex delinquency, and status offenders. Also focuses on the internal workings of the juvenile justice system.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	611	Advanced Topics in Crime and Victimization	Examines research on criminal offending and victimization, focusing on the correlates of offending and victimization, risk and protective factors, and policies designed to reduce the impact of crime on victims.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	612	Advanced Topics in Race, Gender, and the Criminal Justice System	Examines the interrelationships among race and ethnicity, gender, crime and the criminal justice system. Focuses on theoretical perspectives and empirical research on racial minorities and women as victims, offenders, and criminal justice professionals.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	613	Qualitative Methods	Provides students with an examination of the design, execution, and write-up of qualitative research. Discusses methods of data collection, including participant-observation, ethnography, and interviewing.	N	SEM	N	OPT	College of Public Programs	School of Criminology and Criminal Justice	3.		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	College of Public Programs	School of Criminology and Criminal Justice	1-15		Pre-requisite: Criminology and Criminal Justice PhD student
CRJ	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	College of Public Programs	School of Criminology and Criminal Justice	1-15		Pre-requisite: Criminology and Criminal Justice PhD student
CSE	100	Principles of Programming with C++	Principles of problem solving using C++, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	101	Introduction to Computer Science and Engineering	Introduces topics in computer science and computer engineering; familiarization with CSE curriculum subdisciplines and topics. Design of computer software and systems, exploring and experimenting with systems, teamwork, professional opportunities, computer models and programming, communication. Fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	2.		
CSE	110	Principles of Programming with Java	Concepts of problem solving using Java, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	120	Digital Design Fundamentals	Number systems, conversion methods, binary and complement arithmetic, Boolean algebra, circuit minimization, ROMs, PLAs, flipflops, synchronous sequential circuits. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	180	Computer Literacy	Students gain fluency in integrating technology to efficiently and effectively solve problems using computational thinking.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	
CSE	182	Applied Problem Solving with C#.Net	Introduces object oriented programming, problem solving, fundamental algorithms and techniques, computer systems concepts, and implementation of programs using Visual C#.Net platform.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	183	Success in Computer Science and Engineering Programs	Overview of the computer science and computer systems engineering fields as well as academic success tips for students.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		

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CSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	205	Object-Oriented Programming and Data Structures	Problem solving by programming with an object-oriented programming language. Introduces data structures. Overview of computer science topics. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	CS	Pre-requisites: CSE 100 or 110 with C or better or currently enrolled
CSE	220	Programming for Computer Engineering	Introduces procedure programming languages (C/C++) and hardware descriptive language (VHDL). fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science & Engineer PRE or BSE; Must have received a C or greater in CSE 120 or EEE 120 AND CSE 205 or CSE 210
CSE	230	Computer Organization and Assembly Language Programming	Register-level computer organization. Instruction set architecture. Assembly language. Processor organization and design. Memory organization. IO programming, Exception/interrupt handling. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: CSE 120 or EEE 120 with C or better; CSE 100, CSE 110 or CSE 200 with C or better OR Computer Science & Engr Graduate student; Credit for CSE 230 or CSE 330 only
CSE	240	Introduction to Programming Languages	Introduces the procedural (C/C++), applicative (LISP/Scheme), and declarative (Prolog) languages.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: CSE 205 with C or better
CSE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6		
CSE	301	Computing Ethics	Ethics for computing majors: history of computing, intellectual property, privacy, ethical frameworks, professional ethical responsibilities, and risks of computer-based systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		Pre-requisites: Computer Science & Engineering BS/BSE student; CSE 205 with C or better
CSE	310	Data Structures and Algorithms	Advanced data structures and algorithms, including stacks, queues, trees (B, B+, AVL), and graphs. Searching for graphs, hashing, external sorting.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engineering BSE, Computer Science BS, Computational Math Sciences BS or Biomedical Informatics BS student; CSE 205 with C or better; MAT 243 with C or better (CMS students may substitute MAT 300) or CSE Graduate students
CSE	320	Design and Synthesis of Digital Hardware	Design and synthesis of digital hardware with hardware description language, computer-aided design tools, and programmable devices. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 220 with C or better; CSE 230 or EEE 230 with C or better; Credit for CSE 320 or CSE 422 only
CSE	325	Embedded Microprocessor Systems	System-level programming and analysis of embedded microprocessors systems. Fundamental concepts of digital system design for embedded system applications. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 220 with C or better or currently enrolled; CSE 230 or EEE 230 with C or better or currently enrolled; Credit for CSE 325 or CSE 421 only
CSE	340	Principles of Programming Languages	Formal syntactic and semantic descriptions, compilation and implementation issues, and theoretical foundations for several programming paradigms. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 310 with C or better; CSE 230 or EEE 230 with C or better OR CSE Graduate students
CSE	355	Introduction to Theoretical Computer Science	Introduces formal language theory and automata, Turing machines, decidability/undecidability, recursive function theory, and complexity theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Syst Engr BSE or Computer Science BS students and have received a C or greater in CSE 310 OR CSE Graduate students
CSE	360	Introduction to Software Engineering	Software life cycle models; project management, team development environments and methodologies; software architectures; quality assurance and standards; legal, ethical issues. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS students and have received a C or greater in CSE 220 or CSE 240 OR CSE Graduate students; or BMI BS (ESBMBS) students and have received a C or greater in CSE 310
CSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		
CSE	408	Multimedia Information Systems	Design, use, and applications of multimedia systems. Introduces acquisition, compression, storage, retrieval, and presentation of data from different media such as images, text, voice, and alphanumeric.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Systems Engineering BSE or Computer Science BS students CSE 310 with C or better
CSE	412	Database Management	Introduces DBMS concepts. Data models and languages. Relational database theory. Database security/integrity and concurrency. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: - Computer Systems Engr BSE, Computer Science BS student, or Biomedical Informatics student; CSE 310 with a C or better
CSE	414	Advanced Database Concepts	Object-oriented data modeling, advanced relational features, JDBC and Web access to databases, XML and databases, object-oriented databases, and object-relational databases.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 412 with a C or better or currently enrolled
CSE	420	Computer Architecture I	Computer architecture. Performance versus cost tradeoffs. Instruction set design. Basic processor implementation and pipelining.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better or currently enrolled
CSE	423	Systems Capstone Project I	Development process: specification, design, implementation, evaluation, and testing with economic, social, and safety considerations. Technical communication and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 320, 325, 360 with a C or better; May not enroll if received a C or better in CSE 461 or 485
CSE	424	Systems Capstone Project II	Continuation of capstone project started in CSE 423. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science or Computer Systems Engr BS or BSE students; Must have received a C or greater or be currently enrolled in CSE 423
CSE	430	Operating Systems	Operating system structure and services, processor scheduling, concurrent processes, synchronization techniques, memory management, virtual memory, input/output, storage management, and file systems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better; CSE 310 with a C or better OR Graduate CSE student
CSE	432	Operating System Internals	IPC, exception and interrupt processing, memory and thread management, user-level device drivers, and OS servers in a modern microkernel-based OS. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Systems Engineering or Computer Science BS/BSE student; CSE 430 with C or better

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CSE	434	Computer Networks	Distributed computing paradigms and technologies, distributed system architectures and design patterns, frameworks for development of distributed software components.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 230 or EEE 230 with a C or better or currently enrolled.
CSE	438	Embedded Systems Programming	Development of embedded system software, I/O handlers, and multiple threaded programs. Scheduling algorithms. Embedded software structures. Real-time operating system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 325 with C or better
CSE	440	Compiler Construction I	Introduces programming language implementation. Implementation strategies such as compilation, interpretation, and translation. Major compilation phases such as lexical analysis, semantic analysis, optimization, and code generation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 340 with a C or better or currently enrolled; CSE 355 with a C or better or currently enrolled.
CSE	445	Distributed Software Development	Distributed system architectures and design, service-oriented computing, and frameworks for development of distributed applications and software components. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better in CSE 360 or be currently enrolled.
CSE	450	Design and Analysis of Algorithms	Design and analysis of computer algorithms using analytical and empirical methods; complexity measures, design methodologies, and survey of important algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better in CSE 310 or be currently enrolled.
CSE	457	Theory of Formal Languages	Theory of grammar, methods of syntactic analysis and specification, types of artificial languages, relationship between formal languages, and automata.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering or Computer Science - BS students and a grade of C or better in CSE 355 or be currently enrolled.
CSE	459	Logic for Computing Scientists	Propositional logic, syntax and semantics, proof theory versus model theory, soundness, consistency and completeness, first order logic, logical theories, automated theorem proving, ground resolution, pattern matching unification and resolution, Dijkstras logic, proof obligations, and program proving.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engr BSE or Computer Science BS student; CSE 355 with a C or better or currently enrolled.
CSE	460	Software Analysis and Design	Object-oriented and structured analysis and design; software architecture and design patterns; component-based development; software safety and reliability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS student; CSE 360 with a C or better or currently enrolled.
CSE	461	Software Engineering Project I	First of two-course software team-development sequence. Planning, management, design, and implementation using object-oriented technology, CASE tools, CMM-level-5 guidelines. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Systems Engineering or Computer Science BS student; Pre-or Co-requisite: CSE 460 (with C or better if completed); May not enroll in CSE 461 if received C or better in CSE 423 or CSE 485
CSE	462	Software Engineering Project II	Second of two-course software team-development sequence. Software evolution, maintenance, reengineering, reverse engineering, component-based development, and outsourcing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisite: Computer Systems Engineering BSE or Computer Science BS student; CSE 461 with C or better
CSE	463	Introduction to Human Computer Interaction	Design, evaluate, and implement interactive software intended for human use.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS student; CSE 310 with a C or better or currently enrolled.
CSE	465	Information Assurance	Concepts of information assurance (IA); basic IA techniques, policies, risk management, administration, legal and ethics issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Information Systems, Computer Systems Engineering BSE, Computer Science BS or Industrial Engineering BSE students and a grade of C or better in CIS 300 or CSE 360 or IEE 305 or currently enrolled
CSE	466	Computer Systems Security	Countermeasures to attacks to computer systems from miscreants (or hackers) and basic topics of cryptography and network security.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Science BS or Computer Systems Engineering BSE student; CSE 310 with C or better
CSE	467	Data and Information Security	Basic concepts of security and privacy, data and database security, access controls, trust models, watermarking, and private information retrieval.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science or Computer Systems Engineering students; CSE 310 completed with a C or better
CSE	468	Computer Network Security	Practical network security exposure and hands-on experience about basic concepts, case studies, and useful tools.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 310 with C or better
CSE	470	Computer Graphics	Introduces basic concepts of interactive computer graphics, realistic rendering, and 3-D viewing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE or Computer Science BS students and a grade of C or better or currently enrolled in CSE 310 AND a grade of D or better in MAT 342 or 343 or currently enrolled.
CSE	471	Introduction to Artificial Intelligence	State space search, heuristic search, games, knowledge representation techniques, expert systems, and automated reasoning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 310 AND CSE 240 or be currently enrolled.
CSE	476	Introduction to Natural Language Processing	Principles of computational linguistics, formal syntax, and semantics, as applied to the design of software with natural (human) language I/O.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 310 or be currently enrolled.
CSE	477	Introduction to Computer-Aided Geometric Design	Introduces basic concepts of 3-D computer geometry, including curves, surfaces, meshes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Systems & Engineering BSE or Computer Science BS students; MAT 343 (or MAT 342) with D or better
CSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	485	Computer Science Capstone Project I	First course in capstone sequence for computer science majors emphasizing development process, technical skills, teamwork, and communication. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-requisites: Computer Science & Engineering BSE or BS students; CSE 310 and CSE 360 with C or better; may not enroll if received a C or better in CSE 423 or CSE 461
CSE	486	Computer Science Capstone Project II	Second course in capstone sequence for computer science majors continuing the development process, technical skills, teamwork, and communication. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.	L	Pre-Requisites: Computer Systems Engineering BSE, Computer Science - BS students and a grade of C or better in CSE 485 or currently enrolled.
CSE	492	Honors Directed Study		Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6		Pre-Requisites: Must be an honors student.

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CSE	493	Honors Thesis		Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-6	L	Pre-requisites: Must be an honor student.
CSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		Pre-requisite: CSE 310 with C or better
CSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-7		Pre-requisite: Computer Systems Engineering or Computer Science - BS student and cumulative GPA must be greater than or equal to 2.50 OR Graduate Engineering students.
CSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-3		
CSE	507	Virtual Reality Systems	Computer-generated 3-D environments, simulation of reality, spatial presence of virtual objects, technologies of immersion, tracking systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Computer Science PHD, Computer Science MCS, Comp Sci/Engr (Info Assurance) PHD or Comp Sci (Art/Media/Engr) PHD students AND C or better in CSE 408 or CSE 470 or CSE 508
CSE	509	Digital Video Processing	Concepts of digital video compression, video analysis, video indexing, browsing and retrieval, video transmission over networks, video processors, MPEG 1, 2, 4, and 7 standards.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisite: Computer Science Engineering graduate student
CSE	510	Database Management System Implementation	Implementation of database systems. Data storage, indexing, querying, and retrieval. Query optimization and execution, concurrency control, and transaction management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	511	Semi-Structured Data Management	Addresses the data management issues for semi-structured data, which are commonly found in Web applications. Covers techniques on modeling, storing, querying and searching data without schemas, with optional confidence, and/or provenance information. Requires knowledge on relational databases and programming skills.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	512	Distributed Database Systems	Distributed database design, query processing, and transaction processing. Distributed database architectures and interoperability. Emerging technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	515	Multimedia and Web Databases	Data models for multimedia and Web data; query processing and optimization for inexact retrieval; advanced indexing, clustering, and search techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	520	Computer Architecture II	Computer architecture description languages, computer arithmetic, memory-hierarchy design, parallel, vector, multiprocessors, and input/output.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	522	Real-Time Embedded Systems	Development of real-time embedded systems, scheduling algorithms, embedded software structures, real-time operating system.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	530	Embedded Operating System Internals	Investigating Linux source including: memory management, kernel synchronization and driver design topics. Designing, coding, testing, and evaluating embedded operating system software in a Linux environment.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	531	Distributed and Multiprocessor Operating Systems	Distributed systems architecture, remote file access, message-based systems, object-based systems, client/server paradigms, distributed algorithms, replication and consistency, and multiprocessor operating systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	532	Advanced Operating System Internals	Memory, processor, process and communication management, and concurrency control in the Windows NT multiprocessor and distributed operating system kernels and servers. Ability to understand advanced concepts in operating systems is required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	534	Advanced Computer Networks	Advanced network protocols and infrastructure, applications of high-performance networks to distributed systems, high-performance computing and multimedia domains, special features of networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	535	Mobile Computing	Mobile networking, mobile information access, adaptive applications, energy-aware systems, location-aware computing, mobile security and privacy.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	536	Advanced Operating Systems	Protection and file systems. Communication, processes, synchronization, naming, fault tolerance, security, data replication, and coherence in distributed systems. Real-time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	539	Applied Cryptography	Uses cryptography for secure protocols over networked systems, including signatures, certificates, timestamps, electrons, digital cash, and other multiparty coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	543	Information Assurance and Security	Comprehensive understanding of information assurance and security problems with the solutions as well as hands-on experiences about applying these solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student

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CSE	545	Software Security	Theories and tools for software security, including secure design, threat analysis and modeling, security testing and coding.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	548	Advanced Computer Network Security	Comprehensive understanding of network security and corresponding solutions, including cryptography, access control, secure Web transactions, e-mail security, and viruses.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		
CSE	550	Combinatorial Algorithms and Intractability	Combinatorial algorithms, nondeterministic algorithms, classes P and NP, NP-hard and NP-complete problems, and intractability. Design techniques for fast combinatorial algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	552	Randomized and Approximation Algorithms	Introduces two important areas of algorithm design for graduate students. A randomized algorithm is allowed to rely on the outcome of a random experiment in deciding on its next step. In many applications, randomized algorithms are simpler than any deterministic algorithms known, but in several cases, they are in fact more powerful or more efficient than any deterministic algorithms. Covers basic paradigms for randomized algorithm design and analysis, as well as for derandomization.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Admission to any SCI graduate program
CSE	555	Theory of Computation	Rigorous treatment of regular languages, context-free languages, Turing machines and decidability, reducibility, and other advanced topics in computability theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	561	Modeling and Simulation Theory and Application	Modeling theories, simulation protocols, object-oriented modeling, model design, simulation analysis, network-based systems, discrete-event modeling, continuous modeling, hybrid modeling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	563	Software Requirements and Specification	Examines the definitional stage of software development; analysis of specification representations, formal methods, and techniques emphasizing important application issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	564	Software Design	Examines software design issues and techniques. Includes a survey of design representations and a comparison of design methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	565	Software Verification, Validation, and Testing	Test planning, requirements-based and code-based testing techniques, tools, reliability models, and statistical testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	566	Software Project, Process, and Quality Management	Project management, risk management, configuration management, quality management, and simulated project management experiences.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	570	Advanced Computer Graphics I	Hidden surface algorithms, lighting models, and shading techniques. User interface design. Animation techniques. Fractals and stochastic models. Raster algorithms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	571	Artificial Intelligence	Definitions of intelligence, computer problem solving, game playing, pattern recognition, theorem proving, and semantic information processing; evolutionary systems; heuristic programming.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	572	Data Mining	Advanced data mining techniques: classification, clustering, association, preprocessing; performance evaluation; information assurance, Web mining, security and privacy issues, and other applications. Students must have a solid background in database management systems, search, learning, and statistics to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	573	Advanced Computer Graphics II	Modeling of natural phenomena: terrain, clouds, fire, water, and trees. Particle systems, deformation of solids, antialiasing, and volume visualization.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	574	Planning and Learning Methods in AI	Reasoning about time and action, plan synthesis and execution, improving planning performance, applications to manufacturing intelligent agents.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	576	Topics in Natural Language Processing	Comparative parsing strategies, scoping and reference problems, nonfirst-order logical semantic representations, and discourse structure.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	577	Advanced Geometric Modeling I	Advanced concepts of geometric modeling: rectangular and triangular surfaces, triangle meshes, Voronoi diagrams, discrete and continuous shape measures, volumes and volume visualization. Students must have a solid background in linear algebra, calculus, and basic 3D graphics to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	578	Advanced Geometric Modeling II	Advanced concepts of geometric modeling: Bezier curves, B-spline curves, blossoming, polygons, geometric algorithms, shape analysis. May be repeated for credit.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	579	NURBS: Nonuniform Rational B-Splines	Projective geometry, NURBS-based modeling, basic theory of conics and rational Bezier curves, rational B-splines, surfaces, rational surfaces, stereographic maps, quadrics, IGES data specification.	N	LEC	N	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	3.		Pre-requisites: Must be a Computer Science Engineering graduate student or a Mathematics PHD student
CSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CSE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	GNA	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		Pre-requisites: Must be a Computer Science Engineering graduate student
CSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-4		Pre-requisites: Must be a Computer Science or Computer Science Engineering graduate student
CSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-12		
CSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-15		
CSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Ira A. Fulton Engineering	Computer Science and Engineering Program	1.		
CSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Ira A. Fulton Engineering	Computer Science and Engineering Program	1-15		
CSE	100	Principles of Programming with C++	Principles of problem solving using C++, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts. Social and ethical responsibility.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	CS	
CSE	180	Computer Literacy	Students gain fluency in integrating technology to efficiently and effectively solve problems using computational thinking.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
CSS	432	Issues in Chicana and Chicano Gender	Analyzes social construction of gender identities; emphasis on impact of American and Mexican cultural values on normative gender relations.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
CSS	490	Field Studies in the Chicana and Chicano Community	Introduces principles and methods of qualitative research applied to the Chicana and Chicano community.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
CST	100	Object-Oriented Software Development I	Basic concepts of object-oriented analysis, design, and programming using Java. Basic Java variables, expressions, arrays, statements, methods, and classes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	150	Digital Systems	Number systems and arithmetic, Boolean algebra, combinational logic, K-maps, ROMs, PLAs, flip-flops, synchronous sequential circuits, introduction to HDL.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	CS	Pre-requisites:CST 100, or be co-enrolled in CST 100; MAT 117 or higher
CST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-3		
CST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	200	Object-Oriented Software Development II	Object-oriented programming and design; information hiding; inheritance and run-time binding; polymorphism; recursion; GUI programming. Introduces software engineering concepts, including software development life cycles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:CST 100 with a D or better

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CST	201	Object-Oriented Software Development II Lab	Hands-on development and programming using objects, inheritance, and polymorphism; GUI programming; introduction to software engineering concepts, UML tools.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites:Completed CST 201 with a grade of D or better, or be co-enrolled in CST 201
CST	220	Programming Languages for Technology with C/C++ and Scripting	Programming language design and implementation concepts through programming C/C++ and scripting; language paradigms, compilation and interpretation, types, run-time management, data control, pointers, inheritance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:CST 150, and CST 200 with a D grade or better
CST	230	Applied Data Structures	Applications of data structures: strings, stacks, queues, trees, hash tables. Time/space complexity, recursion, searching, and sorting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: CST 200 and MAT 243 with D or better
CST	250	Microcomputer Architecture and Programming	Microcomputer architecture, instruction set, assembly language programming and debugging, I/O considerations, memory interface, peripherals and busses, exception/interrupt handling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:Must have taken CST 100, & 150 with a D or better. Must be co-enrolled in CST 251
CST	251	Microcomputer Architecture and Programming Laboratory	Hands-on experience in assembly language programming and debugging. May be taken concurrently with, or subsequent to, CST 250.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering	1.		
CST	256	C Programming for Engineering Technology	Applied and practical problem solving using the C programming language.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	298	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	315	Software Enterprise I: Tools and Process	Introduces tools and techniques used in software enterprise/development, including coding, design, testing, configuration management, and personal process management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites:Completed CST 200 and CST 230 with a D or better
CST	316	Software Enterprise II: Construction and Transition	Best practices in software construction in the context of a team project, including refactoring, defensive programming, unit testing, and configuration and release management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	335	Applications of Computer Theory	Introduces and applies formal language theory and automata, Turing machines, decidability, undecidability, recursive function theory, and complexity theory.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 230; MAT 243
CST	350	Digital Systems Design with Verilog	Digital system design using Verilog. Structural and behavioral modeling. Design examples include finite-state machines, RISC CPUs, and UARTs. Requires design projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET150 or CST150 with D or better OR Technology and Innovation or Fulton Engineering graduate student
CST	359	Internet Networking Protocol	Computer networking for application, transmission control and network layers using the Internet protocols as a model; reliability and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	364	Computer Architecture	Price/performance analysis, instruction set design, RISC/CISC, processor design and implementation, pipelining, instruction-level parallelism, memory hierarchy, storage and I/O systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must have earned D or greater in CET 200 or CST 200 or be currently enrolled AND earned D or greater in CET 354 or CST 354 or be currently enrolled OR must be Technology Science BAS, MS, MSTECH, or Master Computing Studies student
CST	383	Shell and Script Programming with UNIX	UNIX operating system programming of shells, environment and 4th-generation languages and tools, such as sed, awk, perl, grep, make.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites:Must be Technology Science non-degree or BS student AND earned C or greater in CET 100, CET256, CST100, or CST256 or currently enrolled OR must be Technology Science BAS, MS, MSTECH, Master Computing Studies, or Engineering PHD student
CST	386	Operating Systems Principles	Fundamentals of operating systems, process management, scheduling and synchronization techniques, memory and file management, protection and security issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites:Tech Science or Eng BS/BSE/BAS/NonDegree AND C or greater in CST100 or CST256 AND C or greater in CST 250/251 OR Tech Sci BAS/MS/MSTECH, Master Comp Studies or Eng PHD student
CST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	401	Digital Signal Processing for Multimedia	Applies DSP techniques to multimedia. Digital filter analysis and design. Time and frequency techniques. Computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	415	Software Enterprise III: Inception and Elaboration	Third course in the four-course enterprise sequence. Students perform inception (project launch) and elaboration (requirements analysis) activities in project teams.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	L	
CST	416	Software Enterprise IV: Project and Process Management	Project-centric course focusing on applying software process, project management, and technical leadership. Final course in the software enterprise sequence.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 415; ENG 102, 105, 108 or 112
CST	420	Foundations of Distributed Web-Based Applications in Java	Principles underlying design and implementation of distributed software components; sockets, protocols, threads, XML, serialization, reflection, security, and events.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be Technology Science BAS/BS/MS/MSTECH student AND earned a C or greater in CET 230 or CST 230 or be currently enrolled AND earned a D or greater in CET 386 OR CST 386 or be currently enrolled
CST	425	Server Software Programming	Design and implementation of software servers, threaded socket servers, servers for distributed Web-based applications; security for the Web.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better
CST	427	Distributed Object Systems	Distributed applications with Web services, NET, RMI, CORBA; concepts and frameworks for managing, registering, locating, and securing distributed object applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better
CST	428	Web-Client User Interface Programming	Client-server model for window interfaces. Java Swing, Applets, mark-up and scripting languages; Web tools and related technologies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better

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CST	433	Database Technology	Introduces database technologies and DBMS, data models, and languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: CST 230 and MAT 243 completed with a C or better or currently enrolled
CST	441	Software for Personal Digital Assistants	Mobile computing using Java's K, Virtual Machine, MIDP for wireless applications; user interfaces, persistent data storage, and networking.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420 with C or better
CST	452	Advanced Digital Systems Design with VHDL	Uses VHDL to design components of computers and digital systems. Design examples include RISC processor and ALU, memory controller, I/O controller. Requires design projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET 350 or CST 350 with C or better OR Technology and Innovation or Fulton Engineering graduate student
CST	456	Microcomputer Systems Interfacing	Programming using BIOS and DOS routines. Disk operations, TSR routines, and device drivers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET 354 or CST 354 with C or better or enrolled; CET 420 or CST 420 with D or better or enrolled OR Techn and Innovation or Fulton Engr graduate student
CST	457	Advanced Assembly Language Applications	Applies 32-bit assembly language programming using advanced assembler techniques and interfacing to high-level languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CST 354 with D or better; CET 354 with D or better OR Technology and Innovation or Fulton Engineering graduate student
CST	458	Digital Computer Networks	Network hardware and software, topologies, protocols, OSI model, LANs, WANs, Internet; basic concepts of packet switching, routing, error controlling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	473	Digital/Data Communications	Signals, distortion, noise, and error detection/correction. Transmission and systems design. Interface techniques and standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		
CST	481	Information System Security	Implementation, development, and analysis of computer and network security policies, legal ramifications and development and analysis of risk management measures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	482	Network Forensics	Use and creation of advanced network forensics tools: intrusion detection and prevention, honeynets, traffic routing and management, and data reduction and graphing tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
CST	483	Cyber Security Capstone Project	Applies security techniques to a real-world situation. Development of security policy, risk solutions, and incident response facilities.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	2.		
CST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	486	Embedded C Programming	Programming concepts for embedded systems. Interfacing and controlling LED, LCD, keypads, buttons. Embedded OS concepts. Timers and interrupts. Serial communication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; CET383 or CST 383 with C or better; CET 350 or CST 350 with C or better OR Technology and Innovation or Fulton Engineering Graduate student
CST	488	Systems Administration of UNIX	UNIX administration of system and user services using command line and GUI tools. System security and forensics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Technology Science or Engineering BS/BSE/BAS/Graduate NonDegree/MS/MSTECH AND earned C or greater in CET383 or CST383 AND CET386 or CST386 or be currently enrolled OR must be Tech Sci MS/ MSTECH or Eng PHD student
CST	489	Network Administration with TCP/IP	Configuration and installation of networks: addressing, routing, naming, and LAN and MAN services. Network security checking, monitoring, and basic forensics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: Must be either Technology Science or Engineering BS/BSE/BAS/Graduate NonDegree/MS/ or MSTECH AND earned D or greater in CET383 or CST383 or be currently enrolled AND earned D or greater in CET459 or CST459 or be currently enrolled
CST	490	Reading and Conference		N	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
CST	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering	1-6	L	Pre-requisites: Must be an Honors student
CST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		Pre-requisite: Undergraduate Technology and Innovation or Fulton Engineering student; Min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
CST	496	Ethics and Professionalism in Computing	Studies major social and ethical issues in computing, including impact of computing on society, ethical behavior, and social responsibility.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		
CST	497	Honors Colloquium		Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-6		
CST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-7		Pre-requisite: Undergraduate Technology and Innovation or Fulton Engineering student; Min GPA 2.25; OR Technology and Innovation or Fulton Engineering Graduate student
CST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-3		
CST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		

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CST	520	Computer Architecture	Basics of computer architecture. RTN, RISC, CISC concepts; computer arithmetic; ALUs; memory systems; I/O.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Prerequisites: CET364 or CST364 OR Graduate, Non-Degree, or Post Bacc student AND College of Engineering & Applied Sciences or School of Technology
CST	533	Database-Centric Enterprise Applications Development	Solutions for enterprise software systems based on relational database technology. Persistence solutions in middleware frameworks. O/R, XML, and scalability issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Minimum University Cum GPA 3.0; CST 433
CST	540	Internet-Enabled Embedded Devices	Accessing hardware devices through Internet, including Applets, HTTP, custom byte streams, XML-RPC, SOAP. Building network-based applications that interface hardware.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: CST 420
CST	552	Digital Systems Design	Digital system design techniques and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); CST 452
CST	554	Distributed Computing	Topics in distributed systems, including communications, distributed operating systems, fault-tolerance, and performance issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	556	Distributed Applications for Windows Platforms	Distributed Web-based applications using Windows frameworks such as .NET. Essential components, XML, remoting, Web services, windows services, user interfaces.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking); CST 420
CST	557	Embedded Applications Development	Current trends in embedded system development using C, assembly, and special purpose hardware. Development versus target environment issues.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	566	Principles and Practices of Operating Systems	Principles and practices of operating systems: virtual memory systems, I/O devices and systems, file systems and organization, and other topics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	576	Embedded Real-Time Programming	Topics in real-time embedded operating systems such as synchronization, communications, file systems, and memory sharing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking); Minimum University Cum GPA 3.0
CST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	586	Digital Modeling Techniques	Digital system modeling and simulation using hardware description languages.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
CST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering	1-12		
CST	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
CST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-12		
CST	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		
CST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-15		
CST	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-12		
CST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering	1.		
CST	501	Digital Signal Processing Applications	Applies DSP techniques to the design and analysis of digital filters. Solution of filtering problems using computer techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
DAH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	301	Philosophy and Criticism of Dance	Philosophical issues in dance and dance criticism, with emphasis on written analysis and interpretation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better
DAH	302	Cross-Cultural Dance Studies	Examines the field of ethnochoreology, ethnographic methods, and interpretive research practices. Develops critical writing, thinking, and viewing skills for comparative dance study.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	(L or HU) & G	Pre-reqs: Must have completed DAH 201 with a C or greater or be currently enrolled; Must have completed both ENG 101 and ENG 102 OR ENG 105 with a C or greater or be currently enrolled
DAH	492	Honors Directed Study	Consult with an honors advisor before enrolling. May be repeated for credit.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-6		
DAH	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Dance T	1-6	L	Pre-requisites: Must be an Honors student
DAH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAH	495	Theory and Methods of Dance Research	Examines modes of inquiry, data gathering techniques, data analysis and representation, prospectus design, and presentation style for dance research studies. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		

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DAH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-3		
DAH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	502	Cultural Concepts of Dance	Examines the close connections among culture, dance, and movement through writings in cultural theory, dance ethnology, and philosophy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DAH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DAH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		
DAH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		Pre-requisites:Must be a Graduate Student
DAN	122	Rythmic Theory for Dance II		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	130	Dance	Introduces styles and forms of dance; ballet, modern, jazz, tap, ballroom, ethnic. Fee.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	321	Music Literature for Dance	Historical survey of music and compositional elements relative to dance. Emphasis on analysis of choreography from a musical standpoint. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must have completed DAN222 and MUS340 with a grade of C or greater or be currently enrolled
DAN	330	Dance	Advanced levels. Continuation of DAN 230. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	351	Methods of Teaching Ballet	Analysis and acquisition of teaching techniques and materials for ballet.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	352	Dance Education Theory	Motivation; learning; assessment; historical, cultural, and social constructs; outreach; service; advocacy; curriculum development in dance education. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance major
DAN	354	Integrated Approaches to Dance Education	New methods of dance education pedagogy. Essential skills to employ and integrate instructional technology within dance curricula. Activities promote experiential and layered instruction in integrated approaches to multicultural pedagogy that include interdisciplinary, integrated, and immersion strategies of education. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	356	Teaching Contemporary Dance	Frameworks, skills, and strategies for teaching contemporary dance practice in multiple settings. Fee.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must be a Dance Education student
DAN	364	Choreography and Accompaniment	Experience in the use of traditional and nontraditional musical structures as a basis for choreographic projects.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-Requisites: Must have completed DAN265 with a grade of C or greater or be currently enrolled
DAN	365	Advanced Choreography	Investigation and practice of contemporary styles of choreography.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites:Must have completed DAN364 with a C or greater; must have completed DAN265 with a C or greater or be currently enrolled
DAN	380	Performance Studies Practicum	Focus on developing rehearsal skills and achieving performance excellence through the preparation of three completed works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAN	435	Technique and Theory of Ballet	Study of professional advanced ballet technique with emphasis on preparation for performance. 4 hours weekly. May be repeated for credit.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DAN	445	Laban Movement Analysis	Theory and practice of Laban movement analysis and Bartenieff fundamentals through movement investigation, observation, notation, and analysis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student

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DAN	471	Dance Arizona Repertory Theatre	Preprofessional modern dance company, emphasizing outreach and performance. Opportunity to work with guest artists and community schools and organizations. May be repeated for credit. fee	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DAN	472	Concert Dance	Extensive preparation of repertory or new works created by experienced choreographers. Simulates dance company experience, culminating in performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DAN	496	Senior Dance Education Capstone	Original research that integrates dance and education. Includes production of written document and public presentation. Fall semester must be completed before spring registration. Must be repeated for a total of 4 semester hours.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DAN 350 with C or better; DAN 352 with C or better; DAN 354 with C or better; DAN 356 with C or better
DAN	510	Dance Production	Theory of costuming, lighting, makeup, scenery, and sound as related to dance performance. May be repeated once for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DAN	522	Sound Design for Dance	Focus on digital recording/editing of audio compositions for choreographic and video projects. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	1-2		Pre-requisite: Must have completed DAN 521 or be co-enrolled in DAN 521
DAN	545	Laban Movement Analysis	Theory and practice of Laban movement analysis and Bartenieff fundamentals through movement integration, observation, critical research, notation, and analysis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	551	Graduate Dance Pedagogy: Ballet	Advanced analysis of teaching techniques for ballet.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DAN	564	Solo and Group Choreography I	Original choreography created for solo and group performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must be a Graduate Student
DAN	565	Solo and Group Choreography II	Continuation of DAN 564.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Must have completed DAN 564
DAN	671	Dance Arizona Repertory Theatre	Preprofessional modern dance company, emphasizing outreach and performance. Opportunity to work with guest artists and community schools and organizations. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3-4		Pre-requisites: Must be a Graduate Student
DCE	100	Introduction to Dance	Overview of dance as a cultural and performative practice, exploring history and theory, philosophy, and movement practices, with reference to key pioneers in the field from around the world.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DCE	110	Argentine Tango I	Introduces basic movement elements, explores various contexts shaping Argentine Tango, and emphasizes social tango with exposure to vals and milonga timing.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	111	Raqs Sharqi I	Familiarize students with the ancient art of Middle Eastern dance. Covers posture, styling, basic body isolations, rhythm patterns, footwork, as well as the social significance and history of the dance.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	112	Capoeira I	Introduces the Afro-Brazilian martial art and movement form capoeira. Molds elements of self-defense, dance, music, song, language, culture and philosophy into the course.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	113	Dances of Africa I	Introduces basic elements of West and Central African dance styles, including the traditional rhythms and cultural context.	N	STO	Y	GNA	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	114	Dances of India I	Introduces Indian folk dances with an emphasis on the history and various movement elements of an ancient South Indian classical dance form, known as Bharata Natyam.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	116	T'ai Chi Chuan I	Introduces an ancient Chinese internal martial art form. The structure includes the beginner level of Tai Chi Chuan theory and movement practice.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	117	Feldenkrais I	The Feldenkrais method is an approach to enhance awareness of the body, improve functional actions, and expand one's repertoire of movements.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	118	Yoga/Pilates	Provides a basic physical and philosophical understanding of yoga and Pilates mat practices.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	120	Modern Dance I	Introduces modern dance and its basic principles, including alignment, core muscular strength, and spatial exploration.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	121	Ballet I	Introduces principles of ballet and development of basic technical skills, including dynamic alignment, functional rotation, and musicality.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	122	Jazz I	Provides students with beginning-level technique class in different jazz styles. Focuses on alignment, technique, and performance skills.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	123	Hip Hop I	Equips student with understanding of hip hop dance history, culture and music through studio work on various hip-hop dance styles.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	124	Latin/Swing/Ballroom I	Introduces major Latin and ballroom dances and focuses on a system of elements that are found in all partnership dances, including movement components, rhythmic patterns, dance positions, and unique characteristics used to better define each dance.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	125	Latin/Salsa I	Introduces Latin dancing. Instruction focuses on salsa, cha-cha, merengue, and rumba.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	126	Country-Western	Initiates the student into the rhythm two-step, progressive two-step, night club two-step, country cha-cha, country waltz, triple swing and a multitude of line dances.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	130	First-Year Movement Practices I	Introduces diverse somatic movement principles and practices through exploration of movement, context, theory, and personal reflection.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance major

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DCE	131	First-Year Movement Practices II	Modular structure enables a series of short intensive studies including movement, context, theory, and personal reflection.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance student; DCE 130 with C or better
DCE	134	Technique and Theory of Modern Dance	Elementary concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	135	Technique and Theory of Ballet	Elementary ballet technique with emphasis on alignment, control, and development of the feet with proper awareness of style and phrasing. 4 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	160	First-Year Creative Practices I	Explores creativity and creative processes with reference to some key historical practices and influential artists. Seeks to encourage and develop students' awareness of their own imagination and creative process through individual and group projects involving problem solving, creative tasks, and reflection.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	161	First-Year Creative Practices II	Explores creativity and creative processes with reference to some key historical practices and influential artists. Encourage and develops students' awareness of their own imagination and creative process through individual and group projects involving problem solving, creative tasks, and reflection.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student; DCE 160 with C or better
DCE	170	First-Year Seminar I	Orientation to the university learning environment and profession of dance with emphasis on developing tools and processes for reflection and critical thinking.	N	LEC	N	YGB	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisite: Dance major
DCE	171	First-Year Seminar II	Continuation of First-Year Seminar I. Focuses on orientation to the larger field of contemporary dance practice with an emphasis on developing tools and processes for reflection, synthesis, and critical thinking. Requires participation in School of Dance "Dance Matters."	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisite: Dance majors
DCE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DCE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		
DCE	201	Dance, Culture, and Global Contexts	Introduces the study of dance as culture in diverse global contexts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU & G	
DCE	210	Argentine Tango II	Builds upon concepts, figures, and elements of the Argentine Tango introduced in level one.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DCE 110 or DAN/DCE 194 (Argentine Tango I)
DCE	211	Raqs Sharqi II	Focuses on refining beginning technique, advanced movements, layering and musical interpretation. Uses choreography and improvisation to encourage mind-body awareness.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DCE 111 or DAN 194 (Raqs Sharqi I)
DCE	216	T'ai Chi Ch'uan II	Intermediate-level study of the ancient Chinese martial art of rounded, fluid, balanced movements. Teaches the sets of long form Yang style of Tai Chi Ch'uan in a slow and relaxed manner.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DCE 116 or DAN 194 (Tai Chi Ch'uan I)
DCE	220	Modern Dance II	Explores modern dance practices, including somatic techniques, stylistic versatility, and performance skills.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	221	Ballet II	Explores contemporary and classical ballet practices, focusing on whole body integration and performance strategies.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		
DCE	222	Jazz II	Explores intermediate level of jazz dance techniques.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DCE 122 or DAN 130 (Jazz I)
DCE	223	Hip Hop II	Intermediate-level class that provides the knowledge of hip hop dance history, culture and music through studio work on various hip hop dance styles.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DCE 123 or DAN 194 (Hip Hop I)
DCE	224	Latin/Swing/Ballroom II	Continues development of level one Latin/Swing/Ballroom dances to prepare student to have command of the complex rhythmic patterns and figures used in major partnership dances.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DCE 124 or DAN 194 (Latin/Swing/Ballroom I)
DCE	225	Latin/Salsa II	Reviews and reinforces the basics introduced in Latin/Salsa I and builds upon more complicated concepts and figures.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DCE 125 or DAN 194 (Latin/Salsa I)
DCE	234	Technique and Theory of Modern Dance	Intermediate concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	235	Technique and Theory of Ballet	Advanced study of elementary ballet technique through the traditional exercises, with proper awareness of style and phrasing. 4 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	262	Rhythmic Theory for Dance I	Elements of music, music structures, and their relationship to dance. Emphasis on rhythmic analysis and dance accompaniment. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	263	Rhythmic Theory for Dance II	Continuation of DAN 221 with an emphasis on small group/movement projects in relation to musical time and structure. CD-ROM work included. Students with rhythmic theory transfer credit may meet the enrollment requirements by passing a proficiency exam. Please contact the instructor of the course for more information.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	265	Approaches to Choreography	Intermediate application of basic choreographic principles with emphasis on improvisation, form, content, and evaluative skills.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance majors only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DCE	270	Second-Year Seminar I	Theory and practice of lighting, scenery, sound, and stage management for dance production. Labs cover all areas of production.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2-3		Pre-requisites: Dance students; DCE 170 or DAH 194: First-Year Seminar
DCE	271	Second-Year Seminar II	Provides basic understanding of costume design, sound production, and interactive performance for dance.	N	LEC	N	YGB	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisites: Dance Majors Only
DCE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DCE	324	Latin/Swing/Ballroom III	Refines dances learned in the intermediate level of Latin and ballroom dances, including foxtrot, waltz, salsa, cha cha, rumba, samba, west coast swing, bolero, tango, and swing. Prepares students to have a more advanced command of the complex rhythms and figures used in the major partnership dances.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DCE 224 or DAN 294 (Latin/Swing/Ballroom II)
DCE	325	Latin/Salsa III	Refines dances learned in the intermediate level of major Latin dances, including salsa, cha cha, rumba, meringue, bachata, and samba. Prepares students to have a more advanced command of the complex rhythms and figures used in the major Latin dances.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: DCE 225 or DAN 294 (Latin/Salsa II)
DCE	334	Technique and Theory of Modern Dance	Advanced concepts of modern dance technique. Development of movement quality and performance skills. 6 hours weekly. Placement audition required.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	335	Technique and Theory of Ballet	Intermediate ballet technique with emphasis on strength, dynamics, rhythmical impulses, and transitions with awareness of proper style and phrasing. 4 hours weekly.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	340	Media for Dance	Computer applications for human movement modeling, digital video design and creation, sound composition, and the incorporation of multimedia design elements into online environments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	CS	Pre-requisite: ART 112 or Dance BFA, Dance Minor or BIS: Dance concentration student
DCE	350	Dance for the Classroom Teacher	Develops teaching methodology for implementation of dance curriculum in K-12 classrooms.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		
DCE	354	Creative Approaches to Teaching Dance I	Explores creative strategies and methodologies for teaching dance to a variety of populations in diverse settings. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DCE	401	Dance History	History of dance with a focus on Western forms from the Renaissance to contemporary times. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.	HU	
DCE	434	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance technique. 6 hours weekly.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance BFA student
DCE	437	Dance Kinesiology	Principles of kinesiology applied to dance movement, including identification of muscular imbalances, inherited anatomical differences, and pathomechanics in dance technique.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Dance BFA student; BIO 201 with a D or better
DCE	438	Dance Theatre Performance/Production	Performance or technical theatre work in designated dance productions. 3 hours a week per semester hour.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisite: Dance BFA, Dance minor or BIS Dance concentration
DCE	460	Transition Project I	Original choreography for group performance with analysis and critique of problems encountered in production.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance BFA student
DCE	461	Transition Project II	Original research that integrates dance and a related field of interest. Includes production of written document and public presentation. Fall semester must be completed before spring registration. May be repeated for a total of 4 semester hours.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance students; DCE 460 with C or better
DCE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	492	Honors Directed Study		N	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-6		
DCE	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Dance T	1-6	L	Pre-requisites: Must be an Honors student
DCE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		
DCE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-7		
DCE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-3		
DCE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	501	Philosophy of Dance	Analyzes traditional and contemporary theories of dance with regard to issues of expression, form, and meaning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
DCE	534	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance for first-year graduate students. 6 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-3		Pre-requisite: Dance Graduate student
DCE	535	Technique and Theory of Ballet	Graduate study of ballet technique.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-2		Pre-requisite: Dance Graduate student
DCE	538	Dance Theatre	Performance in specially choreographed dance productions.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisite: MFA Dance student

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DCE	540	Issues in Media for Dance	Introduces desktop multimedia as it relates to dance creation, production, education, and research. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: MFA Dance student
DCE	543	Sound Design for Dance	Audio mixing for analog/digital recording and editing. fee	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	2.		Pre-requisite: Dance majors
DCE	554	Graduate Dance Pedagogy	Provides both the theoretical basis and practical application of principles for teaching contemporary dance disciplines in a postsecondary setting. Includes discussion, co-teaching and individual teaching projects and sessions, practical application of course readings, and guest speakers. Both dance and discussion of ideas in each class session.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: MFA Dance student
DCE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LAB	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
DCE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		
DCE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-4		Pre-requisites:Must be a Graduate Student
DCE	634	Technique and Theory of Modern Dance	Preparation in the performance and comprehension of professional-level modern dance for second-year graduate students. 6 hours weekly. Fee.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Dance T	3.		Pre-requisite: Dance Graduate student
DCE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Dance T	1-12		
DCE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Dance T	1-12		Pre-requisites:Must be a Graduate Student
DCE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Dance T	1.		Pre-requisites:Must be a Graduate Student
DCI	510	Teacher as Researcher	Introduces teacher research as a new research genre; offers teachers guidance on planning and conducting research on their practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	511	Establishing Effective Teaching Practice	Helps beginning teachers establish and strengthen best practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	512	Developing Strategies for Teaching Practice	Helps beginning teachers refine management strategies and instructional methods.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	520	Teaching Standards Applied to Professional Practice	Develops teacher skills and self-reflective practices to assess instruction and document and achieve professional growth in teaching standards.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-3		
DCI	521	Reflective Practice in Teaching Standards	Teachers apply reflective practices to develop professional presentation portfolios.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-3		
DCI	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		

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DCI	530	Establish a Mentoring Partnership	Prepares veteran educators for mentoring. Mentors collaborate, reflect on their practice, and become teacher leaders through professional development.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	531	Analyzing and Planning for Professional Growth through Mentoring	Refines strategies for assessing instruction and provides collegial feedback.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	2-3		
DCI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: COE 501 or DCI 510 with B or better
DCI	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
DCI	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	701	Curriculum Theory and Practice	Curriculum theory and practice as a field of study. Its current orientations and applications, modes of inquiry, and community of scholars and practitioners.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	702	Interdisciplinary Research Seminar	Core research course for students in the interdisciplinary PhD in Curriculum and Instruction program.	N	LEC	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	703	Research in Teacher Development and Leadership	Examines research in teacher education and development from preservice through in-service. Students participate in the review of research related to broad themes within the recent literature. Strands/themes of investigation include a brief review of the history of teacher education, teacher development, professional development and teacher leadership, teacher evaluation, qualitative and quantitative research in teacher education, reform in teacher education, including recent policies and politics and other issues.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		

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DCI	704	Adult Learning Theory and Practice	Explores the multiple dimensions of learning in adulthood, including the social contexts of learning, and cognitive and developmental aspects of learning. Focuses on the experience and practice of adult learning, and examines the various theories attempting to explain how adults learn.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	705	Teacher Leadership Theory and Professional Practice	Teacher leaders analyze leadership skills as they reflect on their own practice and professional development experience. They process knowledge of how to effectively promote positive practices among teachers at varied stages in their careers. Teacher leaders are involved in scholarly inquiry and discourse by means of leadership institutes, peer collaboration, reflective questioning and individual research. Teacher leaders also develop the perspective of the teacher as researcher as they read and critically evaluate published research related to teacher leadership in professional and academic literature.	N	SEM	N	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	3.		
DCI	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
DCI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post Baccalaureate Undergraduate student
DCI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
DCI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	451	Design Research and Educational Gaming Practicum	Principles of design research as applied to educational games. Includes implementation of a design research project.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: RDG 440 with C or better; EDT 329 with C or better
DCI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
DCI	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
DCI	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
DCI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
DCI	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
DNP	600	Research Methods	Course on research methods in a specific discipline.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	601	Theoretical Foundations for Advance Practice Nursing	Examines philosophical foundations of advanced nursing practice by analyzing interrelationships among theory, philosophy, practice, and research.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	602	Principles of Research Methods and Evidence-based Practice	Examines processes of scientific inquiry and their application to generating knowledge for and refining nursing practice.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	603	Evaluating and Applying Evidence in Healthcare Outcomes	Examines the role of inquiry and innovation in scientific, theoretical, and practical underpinnings of healthcare improvement.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Graduate Nursing Program student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DNP	604	Advanced Human Pathophysiology Core	Core course focuses on human pathophysiology and concepts of genetics for advance practice nursing.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	605	Advanced Health Assessment Core	Advanced health assessment skills, including history-taking strategies and physical, functional, developmental, and psychosocial assessment.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	607	Advanced Human Pathophysiology Women's Health	Didactic course for women's health nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
DNP	608	Advanced Pharmacotherapeutics Core	For advanced practice nurses, expands theoretical and evidence-based knowledge and promotes synthesis of pharmacotherapeutic concepts and principles across the lifespan.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Graduate Nursing Program, Doctor of Advanced Nursing Practice. Co-enrolled in either: DNP 612, 622, 632, 642, or DNP 672
DNP	609	Advanced Practice Nursing Role I	First of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: Nursing Graduate Program
DNP	610	Advanced Practice Nursing Role II	Second of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP 609 with B or better
DNP	611	Advanced Health Assessment of Women Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment of women across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	612	Applied Pharmacotherapeutics for Women	Focuses on the application of knowledge of pharmacological principles in the treatment of diseases and promotion of health for women.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: DNP Women's Health student; Co-requisite: DNP 608
DNP	613	Women's Health Promotion I	Didactic course focuses on theories of health behavior, health promotion, disease prevention and patient education.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Women's Health student; Co-requisite: DNP 614
DNP	614	Women's Health Practicum I	Clinical assessment and education of women across the lifespan for the purposes of health promotion and disease prevention.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Women's Health student; Co-requisite: DNP 613
DNP	615	Management of Common Problems in Women's Health	Focuses on management of nursing care for high-risk perinatal women and women with common health problems.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Women's Health student; Co-requisite: DNP 616
DNP	616	Advanced Women's Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Women's Health student; Co-requisite: DNP 615
DNP	617	Management of Complex and Chronic Disease in Women	Didactic course focused on using current evidence-based research as the context for the assessment and management of complex and chronic reproductive and gynecologic health status across the lifespan and patient education.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Women's Health student; Co-requisite: DNP 618
DNP	618	Advanced Women's Health Practicum III	Clinical course focused on using current evidence-based research as the context for the assessment and management of complex and chronic reproductive and gynecologic health states across the lifespan and patient education.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Women's Health student; Co-requisite: DNP 617
DNP	620	Advanced Human Pathophysiology Adult	Didactic course for adult nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP Advanced Nursing Practice (Adult Nurse Practitioner); Co-requisite: DNP 604
DNP	621	Advanced Health Assessment of Adults Lab/Practicum	Skill-based course focuses on advanced health assessment skills, including history-taking strategies and the physical, functional, genetic, developmental, and psychosocial/cultural health assessment of adults and adolescents.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: DNP Advanced Nursing Practice (Adult Nurse Practitioner); Co-requisite: DNP 605
DNP	622	Applied Pharmacotherapeutics for Adults/Geriatrics	Focuses on the application of knowledge of pharmacological principles in the treatment of diseases and promotion of health for adults and geriatric patients.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: DNP Advanced Nursing Practice (Adult Nurse Practitioner); Co-requisite: DNP 608
DNP	623	Adult Health Promotion	Introduces adult health promotion and disease prevention, emphasizing principles of evidence-based practice in clinical and community settings.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Adult Nurse Practitioner); Co-requisite: DNP 624
DNP	624	Adult Health Practicum I	Clinical practicum designed to apply principles of evidence-based practice in health promotion and disease prevention in clinical and community settings. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Adult Nurse Practitioner); Co-requisite: DNP 623
DNP	625	Management of Common Problems in Adults	Includes theory/research that guides the management/maintenance of adults with chronic health alterations. Emphasizes psychophysiological interrelationships of illnesses.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Adult Nurse Practitioner); Co-requisite: DNP 626
DNP	626	Adult Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Adult Nurse Practitioner); Co-requisite: DNP 625
DNP	627	Management of Complex Health Problems in Adults	Didactic course designed to complement DNP 628. Focus on application of EBP in care of adults with complex health alterations.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Adult Nurse Practitioner); Co-requisite: DNP 628
DNP	628	Adult Health Practicum III	Clinical practicum designed to complement DNP 627. Focuses on application of EBP in care of adults with complex health alterations.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Adult Nurse Practitioner); Co-requisite: DNP 627
DNP	630	Advanced Human Pathophysiology Family	Didactic course for family nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP Advanced Nursing Practice (Family Nurse Practitioner); Co-requisite: DNP 604

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DNP	631	Advanced Health Assessment for Family Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: DNP Advanced Nursing Practice (Family Nurse Practitioner); Co-requisite: DNP 605
DNP	632	Applied Pharmacotherapeutics for the Family	Applies evidence-based pharmacotherapeutic principles to disease treatment and health promotion and maintenance for family nurse practitioners.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: DNP Advanced Nursing Practice (Family Nurse Practitioner); Co-requisite: DNP 608
DNP	633	Family Health Promotion in Primary Care I	First didactic role specialty course. Focuses on concepts and strategies to promote, manage, and maintain health of child, adult, and family.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Advanced Nursing Practice (Family Nurse Practitioner) major; Co-requisite: DNP 634
DNP	634	Family Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: Advanced Nursing Practice (Family Nurse Practitioner) major; Co-requisite: DNP 633
DNP	635	Management of Common Family Problems in Primary Care II	Second didactic role specialty course utilizing knowledge from previous courses to formulate therapeutic promotion, management, and maintenance for individuals across the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Family Nurse Practitioner); Co-requisite: DNP 636
DNP	636	Family Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Family Nurse Practitioner); Co-requisite: DNP 635
DNP	640	Advanced Human Pathophysiology Pediatrics	Didactic course for pediatric nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP Advanced Nursing Practice (Pediatric Nurse Practitioner); Co-requisite: DNP 604
DNP	641	Advanced Health Assessment for Children Lab/Practicum	Skill-based course of advanced health assessment skills, including history-taking strategies and the physical, functional, developmental, psychosocial, and comprehensive health assessment of children from birth to age 21 years.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: DNP Advanced Nursing Practice (Pediatric Nurse Practitioner); Co-requisite: DNP 605
DNP	642	Applied Pharmacotherapeutics for Pediatrics	Applies evidence-based pharmacotherapeutic principles to disease treatment and health promotion and maintenance for family nurse practitioners.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: DNP Advanced Nursing Practice (Pediatric Nurse Practitioner); Co-requisite: DNP 608
DNP	643	Developmentally Based Care of the Well Child	Focuses on current practices, research, and issues related to health promotion and disease prevention for children and adolescents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Pediatric Nurse Practitioner); Co-requisite: DNP 644
DNP	644	Well Child Advanced Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Pediatric Nurse Practitioner); Co-requisite: DNP 643
DNP	645	Management of Common Problems in Pediatric Primary Care	Focuses on concepts, theories, and research as a basis for strategies related to management of illness and health maintenance for children.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Pediatric Nurse Practitioner); Co-requisite: DNP 646
DNP	646	Advanced Practicum II in Pediatric Primary Care	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Pediatric Nurse Practitioner); Co-requisite: DNP 645
DNP	650	Advanced Human Pathophysiology Neonates	Didactic course for neonatal nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP Advanced Nursing Practice (Neonatal Nurse Practitioner); Co-requisite: DNP 604
DNP	651	Advanced Health Assessment of Neonates Lab/Practicum	Skill-based course focuses on advanced health assessment skills, including history-taking strategies and the physical, functional, genetic, developmental, and psychosocial/cultural health assessment of neonates.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisite: DNP Advanced Nursing Practice (Neonatal Nurse Practitioner); Co-requisite: DNP 605
DNP	653	Advanced Development and Family Health Promotion: Neonatal Theory I	Concepts, theories, interventions, and research related to the promotion, management, and maintenance of physical, behavioral, and developmental needs of at-risk newborns and infants and their families.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Neonatal Nurse Practitioner); Co-requisite: DNP 654
DNP	654	Neonatal Practicum I	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Neonatal Nurse Practitioner); Co-requisite: DNP 653
DNP	655	Management of Common Neonatal Problems	Proactive neonatal theory course focusing on the concepts, theories, and research related to acute and chronic health deviations of neonates and infants.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Neonatal Nurse Practitioner) Co-requisite: DNP 656
DNP	656	Neonatal Practicum II	Clinical application of theories, concepts, and principles in area of concentration. Fee.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Neonatal Nurse Practitioner); Co-requisite: DNP 655
DNP	659	Embryology and Genetics	Prepares advanced practice nurses to use embryology, genetics, and physiology concepts within the nursing process in the care of pediatric and neonatal patients.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Neonatal, Pediatric or Family Nurse Practitioner)
DNP	660	Advanced Neuropsychopathology Lifespan	Manifestations of altered neurophysiology and psychopathology over the lifespan. Uses evidence-based support for theoretical views of psychiatric disorders to analyze the relationships of neuropsychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or (Adult Psych Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner
DNP	662	Advanced Mental Health Assessment Across the Lifespan Lab/Practicum	Focuses on integration of knowledge and development of skills in assessment of psychiatric disorders occurring in children, adolescents, and adults.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-2		
DNP	663	Mental Health Promotion in Adults	Analyzes issues, theories, and research in restoration and promotion of mental health. Emphasizes developing conceptual framework for psychiatric nursing.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Adult Psychiatric Mental Health Nurse Practitioner); Co-requisite: DNP 664
DNP	664	Adult Psychiatric Mental Health Practicum I	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Adult Psychiatric Mental Health Nurse Practitioner); Co-requisite: DNP 663

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DNP	665	Management of Common Mental Health Problems in Adults	Focuses on development of theoretical basis for intervention and a knowledge base for collaboration and consultation in the mental health area.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Adult Psychiatric Mental Health Nurse Practitioner); Corequisite: DNP 666
DNP	666	Adult Psychiatric Mental Health Practicum II	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Adult Psychiatric Mental Health Nurse Practitioner); Co-requisite: DNP 665
DNP	667	Management of Complex and Chronic Mental Health Problems in Adults	Focuses on modalities of evidence-based treatment with adolescents and adults with complex and/or chronic psychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Adult Psychiatric Mental Health Nurse Practitioner); Co-requisite: DNP 668
DNP	668	Psychiatric Mental Health Practicum III	Clinical experiences in the assessment and evidence-based management of the most complex and chronic adolescent and adult mental health disorders.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Advanced Nursing Practice (Adult Psychiatric Mental Health Nurse Practitioner); Co-requisite: DNP 667
DNP	671	Advanced Mental Health Assessment Across the Lifespan	Focuses on comprehensive mental health assessment of psychiatric disorders occurring in children, adolescents, and families.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or (Adult Psych Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner
DNP	672	Psychopharmacology Across the Lifespan	Focuses on evidence-based use of medications as a treatment for children and adolescents with mental health disorders.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or (Adult Psych Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner
DNP	673	Mental Health Promotion in Children, Adolescents, Adults, and Families Across the Lifespan	Focuses on evidence-based interventions to promote the mental health of children, adolescents, and families.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: DNP Advanced Nursing Practice (Child and Family Psychology Nurse Practitioner), (Child & Adolescent Mental Health) or Child and Family Mental Health Nurse Practitioner; DNP 671; DNP 672; Co-requisite: DNP 674
DNP	674	Child and Family Mental Health Practicum II	Clinical experiences to become skilled in assessment and evidence-based individual psychotherapy of common mental health disorders in children, adolescents, adults and families.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner; DNP 671; DNP 672; Co-requisite: DNP 673
DNP	675	Management of Common Mental Health Disorders in Children, Adolescents, and Families	Emphasizes the assessment and evidence-based management of common mental health disorders in children, adolescents, and adult family members.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3-4		
DNP	676	Child and Family Mental Health Practicum I	Clinical experiences to become skilled in assessment and evidence-based management of common mental health disorders in children, adolescents, and families.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Prerequisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner; Co requisite: DNP 675
DNP	677	Management of Complex and Chronic Mental Health Disorders in Children, Adolescents, and Families	Focuses on modalities of evidence-based treatment with children, adolescents, and families with complex and/or chronic psychopathology.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	678	Child and Family Mental Health Practicum III	Clinical experiences in the assessment and evidence-based management of the most complex and chronic mental health disorders across the lifespan.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisite: DNP Adv Nurse Pract (Family Psych & Mental Health Nurse Practitioner) or Child and Adolescent Mental Health Intervention or Family Psychiatric and Mental Health Nurse Practitioner; DNP 674; DNP 676; Co-requisite: DNP 677
DNP	679	Biostatistics: Principles of Statistical Inference	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
DNP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	681	Advanced Health Assessment of Older Adults Lab/Practicum	Skill-based course focused on advanced health assessment skills specific to older adults, including history-taking strategies, physical, functional, developmental, and psychosocial health assessment.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
DNP	682	Geriatric Health Promotion	Examines theoretical perspectives in aging and cultural and contextual approaches for health promotion in older adults.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	685	Geriatric Health Promotion Practicum I	Diagnosis, management and application of advanced knowledge and skills related to assessment, screening, and health promotion of older adults in a variety of settings.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
DNP	686	Management of Common Health Problems in Geriatrics	Provides theoretical foundation for advanced geriatric healthcare focusing on the epidemiology of aging and the effects of senescence on cognition and organ systems. Emphasizes the core concepts of aging, including health management and end of life care. Uses theory building approaches for applying health management process and outcomes to clinical practice and policy.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Nursing and Healthcare Innovation PhD or DNP student. Pre/Co-requisite: DNP 682 or NUR 682. credit is allowed for only DNP or NUR 686
DNP	688	Management of Complex Diseases and Syndromes in Geriatric Population	Focuses on diagnosis and management of complex diseases and syndromes in the geriatric population.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
DNP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
DNP	696	Advanced Human Pathophysiology Older Adults	Didactic course for gerontological/geriatric nurse practitioner students focuses on applying concepts of human pathophysiology and genetics learned in the core pathophysiology course.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		

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DNP	704	Principles of Evidenced-Based Care in Advanced Practice	Foundational course focuses on the evidence-based process and understanding of evidence-based practice principles assist advanced practice nurses and other healthcare professionals in clinical decision making in order to provide best care.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisite: Doctor of Nursing Practice student
DNP	708	Systems Thinking in a Complex Healthcare Environment	Studies basic and advanced systems principles as they relate innovation to the American healthcare system.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Doctor of Nursing Practice student
DNP	709	Individual and Innovation Leadership in Healthcare Practice	Introduces the role of the innovator, including the essential behaviors of risk taking, managing workload, and addressing the challenges of innovation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Doctor of Nursing Practice student
DNP	711	Healthcare Policy and Innovation	Introduces the political, organizational, and economic dimensions of healthcare policy with emphasis on strategies for innovative policy and practice.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Doctor of Nursing Practice student
DNP	712	Clinical Residency and Management	Demonstrates DNP competencies through portfolio documentation of clinical learning experiences and implementation of the DNP Evidence-Based Clinical Applied Project. Doctoral students submit the DNP Portfolio in partial fulfillment of the degree.	N	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Doctor of Nursing Practice student
DSC	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H & G	
DSC	101	Design Awareness	Surveys cultural, global, and historical context for the design professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & G	
DSC	180	Athena Design Success	Facilitates academic success for first-year College of Design students in the Athena program through developmental, educational, and professional experiences.	N	DIS	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		
DSC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
DSC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	236	Introduction to Computer Modeling	Computers in design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	CS	Pre-requisite: Industrial Design student; Passed Milestone
DSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
DSC	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
DSC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-7		
DSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
DSC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Master of Science in Design or PhD in Environmental Design & Planning student
DSC	501	Qualitative Research in Design	Theory and application of qualitative research. Emphasizes using ethnography to identify and specify innovative concepts and strategies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	520	Contemporary Design Issues	Projected applications in design production, planning, and decision-making processes.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	525	Design Methodologies	Practical exercises and studies in problem-solving strategies; problem definition and supporting theory for the designer. Fee.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
DSC	558	Daylighting	Daylighting as a design determinant; concepts, techniques, methodology, experiments, and case studies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Herberger Institute of Design and the Arts graduate student
DSC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Master of Science in Design student
DSC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD or Design (Inter Design) MSD student
DSC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
DSC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
DSC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisite: Design (Graphic Design) MSD, Design (Indus Design) MSD, or Design (Inter Design) MSD student
DSC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
DSC	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
EA	555	Sch-Plant-Plan-Main		Y	LEC	Y	CNV	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		
EAC	426	Professional Knowledge in Early Childhood Education	Explores issues related to professional knowledge, including disciplinary instruction and the impact of the community on students' learning.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
EAC	440	Integrated Curriculum and Assessment: Science for Early Childhood Educators	Developmentally appropriate practices and methodologies for teaching and assessing science education with young children in a pre-K to third grade classroom. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
EAC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
ECD	501	Interprofessional and Family Collaboration	Explores trends and practices, educationally appropriate instruction and resource materials, methods and strategies in early childhood education. Discusses history of the field, theory, contemporary issues and controversies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	521	Primary/Elementary Communication Arts in Bilingual Education	Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only

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ECD	522	Developmental Social Experiences in Early Childhood Education	Materials, techniques, aesthetic expression, creative activities, and values in the integrated curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	544	Play-Based Education in Inclusive Settings	Theories of play and the educational implications of each in an early childhood/elementary inclusive curriculum for best teaching practices. Practical applications for the primary grades of the elementary and preschool setting in inclusive settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	548	Childhood Studies and Social and Political Environments	Examines the emergence of interdisciplinary/transdisciplinary childhood studies from historical, social, and political contexts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	555	Contemporary Practices in Early Childhood	Trends and practices, instructional and resource materials, and methods and techniques in early childhood education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
ECD	571	Pre-K Student Teaching	Supervised field experience consisting of 160 total hours of work with children between the ages of birth to age 4.	N	PRA	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	4.		Pre-requisites: Graduate students only
ECD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	601	Theories and Issues in Early Childhood Education	Current theories and issues in early childhood education. Presents issues of early childhood best practices, policy, theory, research, and evaluation that are of significance to the early childhood professional. Highlights building on the child development conceptual framework as related to theory and practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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ECD	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
ECD	733	Social and Emotional Development	Inquiry into the social and emotional development dynamics in children, such as peer relationships, self-concept, and parenting processes, with implications for teachers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
ECD	503	Introduction to Research and Evaluation in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	505	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECD	520	Child Guidance and Management: Child, Family, Community, and Culture	Introductory exploration of a variety of techniques for developing a positive classroom environment. Includes overview of several classroom and school management programs and possible effects of implementation. Focuses on observations made during the students' classroom and field experiences. Provides the catalyst for introducing students to the program's professional portfolio requirement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	527	Mathematics in Early Childhood Education	Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	541	Assessment of Young Children	Assessment principles, techniques, and issues related to guiding learning for children birth through eight years. Test construction, interpretation and communication.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	543	Issues in the Development of Infants and Young Children	Factors and conditions that affect early development. Strategies for promoting attachment, self-regulation, resilience, adaptation, and coping.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	545	Curricula, Methods, Technology, and Adaptations for Infants and Young Children	Developmentally appropriate practices. Serving young children with diverse abilities in natural, inclusive settings. Emphasizes cognitive development, social competence.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	546	Communication, Language, and Early Literacy	Early communication development and language acquisition. Facilitating communicative competence and early literacy for infants and young children's diverse abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	547	Supporting Motor Development	Early sensorimotor development. Strategies to facilitate the acquisition of motor skills and address the needs of children with motor disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	549	Foundations of Diversity, Human Development, and the Young Child	Historical foundations and theories of child development as examined with a concern for diversity, multidirectional human change, and cultural embeddedness.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	555-W	Modern Practices in Early Childhood Education	Trends and practices, instructional and resource materials, and methods and techniques in early childhood education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	565	Appropriate Instructional Methodologies for Young Children	Surveys appropriate teaching methodologies for young children across the curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	570	Pre-K Internship	Field experience consisting of 30 total hours of work with children between the ages of birth-age 4. Required for Arizona Dept. of Education Early Childhood Endorsement.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	0-2		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	571	Pre-K Student Teaching	Supervised field experience consisting of 160 total hours of work with children between the ages of birth to age 4.	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	4.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	578	Student Teaching in Early Childhood (K-3)	Supervised teaching in the K-3 classroom setting. Synthesized experience in curriculum, instruction, classroom organization, and guidance of young children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ECD	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECD	210	The Developing Child: Theory into Practice: Birth-Pre-K	Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for children, birth-pre-K.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	211	The Developing Child: Theory into Practice, Prenatal-Grade 3	Examines process of physical, social, emotional, cognitive, language, and literacy development of young children; includes observation, practical application, fieldwork. May be repeated once for credit.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
ECD	214	The Developing Child: Theory into Practice: K-3	Examines all aspects of development of children, kindergarten through age eight, with implications for teachers and parents. Requires classroom observation and participation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ECD	220	Nutrition, Health, and Safety for Young Children	Emphasizes providing proper nutrition, promoting a safe but challenging learning environment, and becoming knowledgeable of a child's health status. Students are required to have first aid and CPR certification, which may require a fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
ECD	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	301	Technology, Media, and Community-Based Education for Young Children	Examines technology, media, toys, and community-based educational opportunities to support the education of three- to eight-year-old children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	302	Foundations of Early Childhood Education	Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	312	Social/Emotional Foundations of Learning	Foundations of early social development and evidence-based practices for promoting social-emotional development; young children's understanding, interactions, and relationships to the social world.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	313	Technology in Early Childhood Education	Evaluates technology and technological learning tools for early childhood classrooms; integrates technology and its tools into students' learning. Lecture, discussion, active participation. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	315	Classroom Organization and Guidance of Young Children	Theories and strategies to guide children's development toward becoming self governing; typical and atypical behaviors; implementing age-appropriate classroom management techniques that foster individual, social, and academic competence.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	316	Teacher Research: Studying Children in Context	Introduces designing, conducting, interpreting, and reporting teacher research; methods of research and fieldwork with children to improve teaching practices and child outcomes.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	321	Emerging Language and Literacy	Language and literacy development; language acquisition; methods of facilitating oral language in relation to emergent reading and writing; methods of facilitating early literacy development; clinical observation.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	323	Building Home, School, and Community Partnerships	Knowledge and skills to facilitate positive and continuous family-school partnerships; family background, social context, family involvement, and current research on family-school interaction and academic success.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	324	Social Studies and Creative Arts Curriculum, Instruction and Assessment	Social studies and creative arts standards, curriculum, and instructional and assessment strategies in an integrated social studies and creative expression curriculum for children birth through grade 3.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	341	Administration/Evaluation of EC Programs	Administration and evaluation of early childhood programs. Emphasizes planning and evaluation; regulations; health, nutrition, and safety; operations, budgeting, and supervision of personnel.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	355	Accommodating Instruction in Early Childhood Education	Identifying and accommodating learners with special needs, including classroom adaptations in instruction and assessment, for pre-K-3 classroom environments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
ECD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	396	Field Experience: Community-Based Early Childhood Education Setting	Observation in classrooms and individual and small group instruction. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses

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ECD	397	Field Experience II	Instruction, observation, and management of small groups and the whole class. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	402	Integrated Curriculum and Assessment: Math and Science	Emphasizes developmentally appropriate educational strategies and instructional techniques in teaching mathematics and science to children in preschool through 3rd grade, within an integrated curriculum approach.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	403	Educational Environments: Preschool/Kindergarten/Primary Grades	Focuses on interactions between young learners and the physical and social environments encountered in preschool, kindergarten, and primary settings.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	404	Teaching Reading and Language Arts in Early Childhood	Development of oral and written language from birth to age 8. Describes developmentally appropriate educational strategies for promoting growth in speaking, listening, reading, and writing.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	405	Practicum in Teaching Reading and Language Arts in Early Childhood	Supervised experience teaching reading and language arts at the preschool, kindergarten, and primary-grade (1-3) levels. Developmentally appropriate strategies to promote young children's speaking, listening, reading, and writing abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	406	Assessment: Birth-Grade 3	Examines assessments appropriate to birth - grade 3 instruction to align curriculum with learner needs. Focuses on test design, interpretation, lesson design, and aspects related to multiple classroom and formal assessments.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	410	Science Curriculum, Instruction and Assessment	Content, instructional strategies, and assessment in early childhood science; age-appropriate standards; active investigation of science concepts; inquiry and collaborative learning; connections between science and other subject areas. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	412	Early Math:Development/Instruction/Assessment	Content, instructional strategies, and assessment in early childhood mathematics; age-appropriate standards; active investigation of mathematics concepts and ideas; connections between mathematics and other subject areas.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	413	Literacy Curriculum, Instruction and Assessment	Extends ECD 321; language and literacy development in K-3 classrooms; language acquisition; methods of facilitating oral language in relation to emergent reading and writing; methods of facilitating early literacy development; clinical experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	414	Interprofessional Practicum	Investigates services and agencies available in the local community to parents of children with special needs. Practical experiences with an intermittent seminar format. Dispositions, knowledge, experiences, and skills necessary for interprofessional collaboration across multiple agencies and programs.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	415	Practicum - Literacy Curriculum, Instruction, and Assessment, K-3	Supervised experience teaching reading and language arts in the primary grades.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	420	Integrated Curriculum and Assessment: Science	Developmentally appropriate educational strategies and instructional techniques in teaching science to children birth-3rd grade.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	470	Early Childhood Education Student Teaching Seminar	Reflective, experienced-based integration of theory and practice; professional development for early childhood teachers.	N	DIS	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	476	Integrated Curriculum: Birth-Pre K	Introduction to teaching children birth through pre-K, including classroom organization, curriculum, and professional relationships.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	477	Student Teaching: Pre-K or Infant/Toddler	Supervised practicum in a pre-K or infant/toddler, school-or center-based program. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	4.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	478	Student Teaching in Early Childhood (K-3)	Supervised teaching in the K-3 classroom setting. Synthesized experience in curriculum, instruction, classroom organization, and guidance of young children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	5-8		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	479	Capstone Seminar in Early Childhood Education	Reflective, experienced-based integration of theory and practice; professional development for early childhood teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	481	Issues and Practices in Early Childhood Education	Stakeholder analysis of teacher education experiences applicable to preparation that leads to increased educational opportunity and success for diverse children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECD	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
ECD	493	Honors Thesis	Honors Thesis	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
ECD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
ECD	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		

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ECD	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
ECD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
ECE	330	electrical Networks		N	LEC	N	CNV	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	4.		
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
ECN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-3		
ECN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
ECN	201	Economic Issues and Analysis	Introduces tools used in basic economic analyses, emphasizing application to contemporary national and international issues. Not open to students with credit in ECN 211 or 212	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisite: Not open to students with credit in ECN 211, ECN 212, 213, or ECN 214
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	
ECN	213	Honors Macroeconomics	Introduces modern macroeconomic analysis. Theory of national income, unemployment, inflation, and economic growth and its application to economic policy. Not open to students with credit in ECN 313.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must be an Honors student; Co- or Pre-requisite: One of the following courses: MAT 210, MAT 211, MAT 270 or MAT 271.
ECN	214	Honors Microeconomics	Introduces modern microeconomic analysis. Theories of consumer behavior, production, and cost. Output and price determination in a variety of market settings. Not open to students with credit in ECN 314.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must be an Honors student; Must have completed one of the following courses with a grade of C or greater or be currently enrolled: MAT 210, MAT 211, MAT 270 or MAT 271
ECN	221	Business Statistics	Methods of statistical description. Applies probability theory and statistical inference in business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: MAT 211 or MAT 271 with a C or better or currently enrolled
ECN	231	Honors Business Statistics	Applies statistical methods used in business and economic modeling and research. Emphasizes regression analysis and modeling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: Must be an Honors student; Must have completed MAT 211 or MAT 271 with a grade of C or greater or be currently enrolled.
ECN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: Must be an Honors Student; Must have completed one of the following courses with a grade of C or greater or co-enrolling: MAT 210, MAT 211, MAT 270, MAT 271 or MAT 272
ECN	303	Honors Managerial Economics	Develops a basic platform for managerial decision making. Applies basic economic concepts and models to actual business practices.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Barrett Honors student; ECN 214 or 312/314 with C or better
ECN	306	Survey of International Economics	Surveys international trade issues, commercial policy, trade theory, customs unions, and international monetary topics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled. May not enroll if completed IBS 306 with a D or greater
ECN	312	Intermediate Microeconomic Theory	Role of the price system in organizing economic activity under varying degrees of competition.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	313	Intermediate Macroeconomic Theory	Determinants of aggregate levels of employment, output, and income of an economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 214 or ECN 312/314 with C or better.
ECN	315	Money & Banking	Functions of money. Monetary systems, credit functions, banking practices, and central banking policy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	331	Economics of the European Economic Union	Examines broad economic policies seeking to influence individuals' decisions, the history of European economic development and policies, as well as institutions and social systems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	335	South Asia and the World Economy	Develops and discusses alternative theories of trade, development, and growth in the context of south Asia and the world economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre- or corequisites with grade of "C" or better: ECN 211 or 213; ECN 212 or 214; MAT 211 or 271.
ECN	345	Survey of Environmental and Resource Economics	Economic principles applied to private and public policy decisions involving environmental resources, natural resource management, and policy analyses. Focuses on how economic methods can contribute to making better environmental decisions.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	3.		Prerequisites: ECN 211 or 213; ECN 212 or 214; MAT 211 or 271 with grade of C or better.
ECN	360	Economic Development	Theories of economic growth and development. Role of capital formation, technological innovation, population, and resource development in economic growth.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	365	Economics of Russia and Eastern Europe	Origins and analysis of contemporary institutions. Comparative development and differentiation in the 20th century.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.

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ECN	382	Managerial Economics	Applies economic analysis to managerial decision making. Market analysis in the context of the socio-legal environment. Does not satisfy Economics major requirements.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Not open to Economics or business majors. Must have minimum 2.0 ASU cumulative GPA and minimum of 56 total earned hours, or be a Non-degree seeking student, or any Graduate degree seeking student
ECN	384	Economics of Social Behavior	Applies economic analysis to contemporary behavior; discrimination, work versus leisure, crime, medical care, macroeconomic policies. Does not satisfy Economics major requirements.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: Must have minimum cumulative GPA of 2.00; Must have minimum of 56 total earned hours or be a non-degree seeking student OR any Graduate degree seeking student
ECN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: ECN 211 or 213, ECN 212 or 214, and MAT 211 or 271 with a grade of C or greater or be currently enrolled.
ECN	404	History of Economic Thought	Development of economic doctrines, theories of mercantilism, physiocracy, classicism, neoclassicism, Marxism, and contemporary economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-requisites: ECN 214 or ECN 314 with a grade of C or greater or be currently enrolled; Co- or pre-requisite: ECN 213 or ECN 313
ECN	410	Applied Business Forecasting	Applies forecasting techniques in business and institutional environments. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: ECN 221 or STP 226, AND ECN 214 or ECN 312/314 with a grade of C or greater.
ECN	413	Advanced Honors Macroeconomics	Develops and uses various macroeconomic models to evaluate important economic policies. Emphasizes honing students' policy evaluation skills.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Honors student; ECN 213 or 313, AND ECN 214 or 312/314 with a grade of C or greater.
ECN	414	Advanced Honors Microeconomics	Develops and uses various microeconomic models to evaluate important economic issues. Emphasizes the economics of uncertainty and information.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Honors student; ECN 213 or 313, AND ECN 214 or 312/314 with a grade of C or greater.
ECN	416	Game Theory and Economic Behavior	Introduces game theory and its application to various economic situations under conditions of complete and incomplete information.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 314 with a grade of C or greater or be currently enrolled; Co- or pre-requisite: ECN 213 or ECN 313
ECN	421	Earnings and Employment	Origins of labor movement, analysis of labor unions, labor markets, collective bargaining, and current policy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	425	Introduction to Econometrics	Elements of regression analysis: estimation, hypothesis tests, prediction. Emphasizes use of econometric results in assessment of economic theories.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314, AND ECN 221, ECN 231 or STP 226 with a grade of C or greater
ECN	436	International Trade Theory	Comparative-advantage doctrine, including practices under varying commercial policy approaches. Economic impact of international disequilibrium.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	438	International Monetary Economics	History, theory, and policy of international monetary economics. Balance of payments and exchange rates. International financial markets, including Eurocurrency markets.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB & G	Pre-reqs: ECN 213 or ECN 313 with a grade of C or greater or be currently enrolled
ECN	441	Public Economics	Public goods, externalities, voting models, public expenditures, taxation, and budget formation with emphasis on the federal government.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	SB	Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	445	Environmental Economics	Advanced topics in environmental economics with quantitative methods for developing information that is used for environmental policy making.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	3.		Prerequisites: ECN 213 or 313; ECN 214 or 312 or 314; MAT 211 or 271 with grade of C or better.
ECN	450	Law and Economics	Economics of the legal system, including analysis of property, contracts, torts, commercial law, and other topics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	453	Industrial Organization and Competition Policy	Development of public policies toward business. Antitrust activity. Economic effects of government policies.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	470	Mathematical Economics	Integrates economic analysis and mathematical methods into a comprehensive body of knowledge within contemporary economic theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater
ECN	475	Capstone in Economics	Capstone course integrating several areas of economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	L	Pre-reqs: ECN 213 or 313 AND ECN 214 or ECN 312/314 with C or greater; senior standing.
ECN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Min 3.0 ASU cum GPA; ECN 213 or 313, and ECN 214 or 312/314 with a grade of C or greater.
ECN	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6		Pre-requisites: Honors student; W. P. Carey BS or BA student or non degree seeking W.P. Carey student; ECN 213 or 313 AND ECN 214 or 314 with a grade of C or better.
ECN	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6	L	Pre-requisites: Honors student; W. P. Carey BS or BA student or non degree seeking W.P. Carey student; ECN 213 or 313 AND ECN 214 or 314 with a grade of C or better.
ECN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-reqs: ECN 214 or ECN 312/314 with a grade of C or greater; Co- or pre-requisite: ECN 213 or ECN 313
ECN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-7		Pre-requisites: Must have completed ECN 313and ECN 314 with a grade of C or greater or be currently enrolled
ECN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-3		
ECN	501	Statistics for Managers	Fundamentals of statistical analysis to aid management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECN	502	Managerial Economics	Applies microeconomic analysis to managerial decision making in areas of demand, production, cost, and pricing. Evaluates competitive strategies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: MBA degree program student
ECN	503	Global Business Environment	Macroeconomic analysis of issues related to economic growth, inflation, interest rates behavior, unemployment, exchange rate determination, and global competitiveness.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a MBA degree program student
ECN	504	History of Economic Thought	Historical development of economic theory. Emphasizes the development of economic analysis from preclassical economics through Keynes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	509	Macroeconomic Theory and Applications	Theory of income, output, employment, and price level. Influence on business and economic environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	510	Microeconomic Theory and Applications	Applies economic theory to production, consumer demand, exchange, and pricing in a market economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: Must be a W.P. Carey Graduate degree seeking student
ECN	525	Applied Regression Models	Simple linear regression, multiple regression, indicator variables, and logistic regression. Emphasizes business and economic applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:MAT 210 with a grade of D or better or currently enrolled
ECN	527	Categorical Data Analysis	Discrete data analysis in business research. Multidimensional contingency tables and other discrete models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:ECN 525 completed with a D or better, or currently enrolled
ECN	530	Experimental Design	Experimental designs used in business research. Balanced and unbalanced factorial designs, repeated measures designs, and multivariate analysis of variance.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Graduate Students only (degree and non-degree seeking)
ECN	535	Multivariate Methods	Advanced statistical methods used in business research. Multivariate analysis of association and interdependence.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites:ECN 525 completed with a D or better, or currently enrolled
ECN	540	Forecasting	Foundation of statistical forecasts and forecast intervals; applies classical and computer-assisted forecasting methods to business forecasting problems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites:QBA 502, MAT 210 completed with a D or better, or currently enrolled
ECN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey Graduste degree seeking student
ECN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey Graduste degree seeking student
ECN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 712 and ECN 714 with a grade greater than a C
ECN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-12		
ECN	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
ECN	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey Graduste degree seeking student
ECN	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECN	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	711	Macroeconomic Analysis I	Current theories of output, employment, inflation, and asset prices as well as major aggregates. Introduces dynamic optimization techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	712	Microeconomic Analysis I	Theory of production, consumer demand, resource use, and pricing in a market economy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	713	Macroeconomic Analysis II	Focuses on growth theory, dynamic general equilibrium models, monetary theory, open-economy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	714	Microeconomic Analysis II	General equilibrium, welfare economics, production, and capital theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	715	Advanced Macroeconomic Analysis	Focuses on current research areas in macroeconomics and monetary theory with emphasis on methods in economic dynamics and numerical techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 711 with a grade of C or greater; Must have completed ECN 713 with a grade greater than a C
ECN	716	Advanced Economic Theory I	Economic behavior under uncertainty; markets and contracts under asymmetric information; the theory of games with incomplete information and applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 714 with a grade of C or greater; Must have completed ECN 712 with a grade greater than a C
ECN	717	International Macroeconomics	Intertemporal approach to the current account, international business cycles, international risksharing and home bias, models of exchange rate determination, balance of payment crises, sovereign debt and default.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		
ECN	721	Labor Economics	Develops basic theoretical models for analyzing labor market issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	722	The Aggregate Labor Market	Extensions/criticisms of labor market theories. Applications to a variety of policy issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	725	Econometrics I	Problems in the formulation of econometric models. Emphasizes estimation, hypothesis testing, and forecast of general linear models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	726	Econometrics II	Estimation and inference of qualitative and limited dependent variable models as well as general multiple equation models.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 725 with a grade better than a C
ECN	727	Quantitative Methods in Economics	Generalized method of moment estimation, estimation with censored and truncated samples, nonlinear models, panel-data models, econometrics of nonstationarities.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater;
ECN	736	International Trade Theory	Theories of comparative advantage and their empirical verification. Theory and political economy of commercial policy. Resource transfers and the role of the multinational corporation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	738	International Finance	Foreign exchange market, balance of payments, and international financial institutions and arrangements; theory and applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	741	Public Economics	Economics of collective action, public spending, taxation, and politics. Impact of central governmental activity on resource allocation and income distribution.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: W.P. Carey Graduate degree-seeking students only; Must have completed ECN 712 with a grade of B or greater; Co-requisite: ECN 714
ECN	753	Industrial Organization	Analyzes structure, conduct, and performance in industrial markets; the economics of organizations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 713 and ECN 714 with a grade of C or greater
ECN	760	Economics of Growth and Development	Economic problems, issues, and policy decisions facing the developing nations of the world.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student; Must have completed ECN 711 and ECN 712 with a grade greater than a C; Co-requisites: ECN 713 and ECN 714
ECN	770	Mathematics for Economists	Surveys mathematical ideas encountered in economics and econometrics: nonlinear programming, the Kuhn-Tucker theorem, concave programming, optimization over time.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	784	Internship		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
ECN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
ECN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ECN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
ECN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-15		
ECN	211	Macroeconomic Principles	Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	SB	
ECN	212	Microeconomic Principles	Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	SB	
ECT	414	Social/Educational Policies Young Children/Families	Social policies at the national and state levels; values and assumptions of policies; political factors shaping policy and implementation; links between policy, educational practice, schools, and family functioning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECT	479	Capstone Seminar in ECT	Reflective, experience-based integration of theory and practice; professional development for preschool through grade 3 teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECT	496	Field Experience III	Instruction and management of small groups and substantial work with the whole class. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
ECT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		Pre-requisite: Progression into upper division Professional Teacher Preparation Program (PTPP) courses
EDA	501	Competency/Performance in Educational Administration	Nature of educational administration and the concept of competency as it applies to educational administration.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	511	School Law	Constitutional, statutory, and case law that relates to all school personnel, pupils, the school district, and other governmental units. Contracts, dismissals, tenure, retirement, pupil injuries, liability of personnel and district, school district boundary changes, and bonding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	515	Administration and Technology in Learning	Provides students with hands-on exposure to technology that assists with school improvement initiatives.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	525	Human Relations and Societal Factors in Education	Interrelations between problems of educational administration and interdisciplinary social sciences. Communications skills, morale, authority, and perception. Concepts from political science, economics, and social-psychology useful to the administrator.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	534	Concepts of Learner-Centered Leadership	Principles, theories, attributes, and skills related to learner-centered leadership.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	544	Public School Finance	Measures of ability, efforts, and educational need; capital outlay funding; tax revenues; federal, state, and local financing alternatives; major issues and trends in the financing of public education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	548	School, Family, and Community Connections	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	555	Educational Facility Planning	School building needs, educational planning for facilities, responsibilities of architects, duties of contractors, and equipping and furnishing of school buildings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	571	School Business Management	Purchasing, budgeting, accounting, payroll management, auditing, financial reporting, insurance, and administration of nonteaching personnel and services.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	573	Human Resources Administration	Organization for human resources services; development of policy to govern the human resources function and its related processes.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	576	The School Principalship	Problem and lab approaches used to provide application of administrative activities of elementary and secondary schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
EDA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	611	Educational Policy and the Law	Emphasizes policy analysis and application of federal and state law to policy evaluation and development in public schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	624	Organizational Development and Management of Schools	Current organizational patterns for public schools. Emphasizes the organizations, human, and social dimensions on organizations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	645	Leadership Development for Education Leaders	Principles, theories, attributes, and skills related to individual leadership development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	675	Politics of Education	Uses social science theory and research to consider the political context of educational policy making.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	676	The School Superintendency	Critical examination of the school superintendency and the primary functions of this educational position. Includes the duties, responsibilities, activities, and problems of the school superintendent. Examines the unique leadership role of the school superintendent.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	677	Foundations of Educational Reform Movements	Historical and contemporary survey of curricular reform movements in the United States with emphasis on equity and social justice issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	679	Administration of Special Programs in Education	For personnel administering special educational services; responsibilities of superintendents, principals, supervisors, and directors for special education, student personnel, audiovisual, library science, and others.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	685	Education in Global Contexts	Global perspectives on education in contemporary society with emphasis on social, political, and economic factors that affect access and equity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-6		
EDA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	711	Administrative Leadership	Emphasizes research in leadership; application of research findings to administrative and supervisory functions in educational endeavors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	722	Administration of Instructional Improvement	Recent research relating to administrative and supervisory responsibilities for the improvement of the educational program. Effective processes by administrators, supervisors, consultants, and coordinators.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	723	Diversity in Education for School Leaders	Discusses current issues and leadership strategies for meeting the needs of diverse student populations combating inequity and inequality in education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
EDA	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EDA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EDA	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EDA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EDA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-3		
EDA	501	Competency/Performance in Educational Administration	Nature of educational administration and the concept of competency as it applies to educational administration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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EDA	511	School Law	Constitutional, statutory, and case law that relates to all school personnel, pupils, the school district, and other governmental units. Contracts, dismissals, tenure, retirement, pupil injuries, liability of personnel and district, school district boundary changes, and bonding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	512	Critical Issues in Educational Leadership	Legal and ethical concepts of educational practices in federal and state laws affecting charter and independent schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	514	Leadership in Curriculum and Assessment	Curriculum and assessment responsibilities of school administrators.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	521	Evaluation of Teaching Performance	In-depth analysis of legal basis of teacher appraisal, teacher competency, measurement of teacher performance, and application of performance appraisal systems.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	524	Theory and Application of Educational Administration	History and development of public school administration in the United States; current organizational patterns for public education at local, intermediate, state, and national levels; current theoretical positions in educational administration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	526	Instructional Supervision	Administering curriculum improvement, in-service education, evaluating, and improving teaching competence; administrative instructional responsibilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	544	Public School Finance	Measures of ability, efforts, and educational need; capital outlay funding; tax revenues; federal, state, and local financing alternatives; major issues and trends in the financing of public education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	547	Marketing and Community Relations for Educational Entrepreneurs	Strategic marketing and community relations concepts and their application, formulation, and execution in charter and independent schools and related services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	548	School, Family, and Community Connections	Administrative factors of primary importance in developing community involvement in public schools. Emphasizes theory and skill of school system and individual communication.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	555	Educational Facility Planning	School building needs, educational planning for facilities, responsibilities of architects, duties of contractors, and equipping and furnishing of school buildings.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	556	Management and Human Resources for Educational Entrepreneurs	Entrepreneurial leadership and organization theory applied to managing human resources in competitive educational organizations by increasing the effectiveness of decision making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	557	Facilities Planning for Educational Entrepreneurs	Legal and practical implications involved in designing or refurbishing charter school facilities to maximize space to facilitate student development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	558	Financial Planning and Reporting for Educational Entrepreneurs	Financial planning and reporting concepts, requirements, and procedures for charter and independent schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	571	School Business Management	Purchasing, budgeting, accounting, payroll management, auditing, financial reporting, insurance, and administration of nonteaching personnel and services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	572	School-Site Business and Human Resources	Effective ethical models and strategies for organizing and administering the conduct of school site human resources administration and business affairs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	576-W	Critical Issues in Educational Leadership	Explores current critical issues in school leadership, including student support and relationships with governmental agencies and the community.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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EDA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	634	Instructional Leadership	Theory, practice, and issues in school change and reform with a focus on leading change efforts at the school site.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	675	Politics of Education	Uses social science theory and research to consider the political context of educational policy making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	679	Administration of Special Programs in Education	For personnel administering special educational services; responsibilities of superintendents, principals, supervisors, and directors for special education, student personnel, audiovisual, library science, and others.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	701	Assessment Policies, Issues, and Practices	Critical thinking about assessment data and other information sources to make inferences, judgments, and predictions about reality in schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	704	Leading Change in Educational Organizations	Develops understanding of dynamic and systemic nature of organizations, with emphasis on leadership for building organizational capacity and learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	772	School District Human Resources and Business Management	Effective ethical models and strategies for organizing and administering the conduct of school site human resources administration and business affairs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	773	The Superintendency and School District Leadership Roles and Responsibilities	Examines management roles and responsibilities of public school district superintendents and other leaders in identifying and addressing critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDC	420	Integrated Learning Experience III: Assessment	Principles related to classroom assessment, including the alignment of assessment to curriculum, test interpretation, and a variety of assessment techniques.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisite: Admission to Professional Teacher Preparation Program
EDC	425	Integrated Learning Experience IV: Advanced Management and Professional Knowledge	Explores issues related to professional knowledge, including interdisciplinary instruction, management, and the impact of the community on students' learning.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		Pre-requisite: Admission to Professional Teacher Preparation Program
EDC	430	Literacy III: Interventions	Strategies for accommodating students struggling with learning, with a focus on the areas of literacy acquisition and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program

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EDC	440	Science Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing sciences in grades K-8. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
EDC	450	Social Studies Methods for the Elementary Classroom	Developmentally appropriate practices for teaching and assessing social studies in grades K-8.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
EDC	474	Field Experience	Applies course content in a K-8 school. Emphasis on observation, classroom management, planning and delivery of instruction, and assessment. Fee.	Y	FLD	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Admission to Professional Teacher Preparation Program
EDC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		Pre-requisite: Admission to Professional Teacher Preparation Program
EDP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	302	Assessment and Evaluation in Education	Applies assessment and evaluation principles to education contexts, using a case format.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
EDP	303	Human Development	Selected aspects of child and adolescent development. Emphasizes possibilities for influence by teachers and parents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	L or SB	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
EDP	310	Educational Psychology for Non-Teachers	Human behavior in educational situations. Individual differences, factors affecting learning, behavioral and cognitive learning, motivation, testing, and assessment.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	SB	
EDP	313	Childhood and Adolescence	Principles underlying total development of pre- and early-adolescent children. Emphasizes physical, intellectual, social, and emotional development with practical implications for teachers. Meets ADE requirement for one course in early adolescent psychology for middle grade endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	SB	
EDP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	454	Statistical Data Analysis in Education	Role of data analysis in research and decision making. Elements of exploratory data analysis, descriptive indexes, and statistical inference.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	
EDP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDP	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6		
EDP	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-6	L	Pre-requisites: Must be an Honors student
EDP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-7		
EDP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
EDP	502	Introduction to Data Analysis	Descriptive statistics, visual approaches, estimation, and inferential methods for univariate and bivariate educational research problems. Experience using statistical software.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	503	Introduction to Qualitative Research	Terminology, historical development, approaches (including ethnography, ethnomethodology, critical theory, grounded theory, and hermeneutics), and qualitative versus quantitative social sciences; methods of inquiry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	510	Essentials of Classroom Learning	Theoretical and empirical foundations of learning in the classroom milieu. Critical exposure to research and method in instructional psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	513	Child Development	Examines problems and achievements experienced by children growing up in a technological society. Emphasizes discovering the child's perspective.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	514	Psychology of the Adolescent	Cognitive, physical, and social development of adolescents in contemporary society. Impact of family, school, and workplace on adolescent development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	523	Educational Assessment	Increases teachers' and others' competence in classroom assessment, grading, and testing. Emphasizes integration of curriculum, instruction, and assessment.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	529	Lifespan Human Development	Issues and models of human development as it occurs across the lifespan.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

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EDP	530	Theoretical Issues and Research in Human Development	Psychological theories, research, and methods relevant to human development, emphasizing the relations between early development and later performance.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	535	Applied Behavior Analysis	Principles of conditioning as applied to behavior. Current research on the experimental analysis of behavior in educational psychology.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	536	Physiology of Behavioral Disorders	Critical study of nervous system, brain function for fundamental behaviors, and system dysfunctions in mental/neurological disorders.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	540	Theoretical Views of Learning	Classical and cognitive theories of learning, plus recent orientations. Illustrative experimental and rational foundations; implications for educational practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	541	Motivating Students to Learn	Examines multiple perspectives on motivation and the management of learning environments as bases for reflecting on educational practice.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	542	Research Methods in the Learning Sciences	Students read, design, and carry out original research in the learning sciences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be a Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student and completion of EDP 540 with a grade of C or better
EDP	544	Psychology of Reading	Alternate analyses of the reading process; designs and procedures for investigating instructional and noninstructional variables related to reading achievement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	545	Higher-Order Processes in the Learning Sciences	Examines original research on induction, deduction, analogy and transfer, knowledge representation, and other issues in learning.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	550	Introduction to Measurement in Education	Nature and types of educational measures. Critiquing and selecting appropriate measuring devices. Constructing measuring devices. Social controversies about tests.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	552	Multiple Regression and Correlation Methods	Educational applications of regression techniques. Quantitative and qualitative predictors, curvilinear trends, and interactions. Emphasizes analyzing data and interpreting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	554	Analysis-of-Variance Methods	Educational applications of ANOVA techniques. Between- and within-subjects designs, multiple comparisons. Emphasizes using statistical software and interpreting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	560	Individual Intellectual Assessment	Issues in administration and interpretation of individual intelligence tests. Theoretical basis, ethical considerations, and diagnostic use of test results. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: School Psychology Ph.D or Counseling Psychology Ph.D
EDP	561	Lab in Psychological Assessment	Lab experience in administration, scoring, and interpretation of individual intelligence tests.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Co-enrolled in EDP 560
EDP	562	School Psychology: Ethics, Theory, and Practice	Provides information regarding the ethics, history, and theory of current school psychology practice.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	563	Interventions in School Psychology	Examines case-based consultation and consultation research relevant to school psychology practice.	N	FLD	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	564	Academic Interventions	Skills-building course emphasizing academic interventions and outcome-based educational decisions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	566	Diagnosis of Learning Difficulties	Clinical diagnosis of learning difficulties, emphasizing specific academic problems. Use and interpretation of diagnostic instruments in practical school situations. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDP 560 and 562 with a grade of B or better
EDP	567	School Psychological Services to Minority Students	Historical perspectives and major issues in psychological and academic assessment and interventions with minority school children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	568	Diagnosis and Interventions for Children and Adolescents with Emotional Handicaps	Clinical diagnosis of emotional handicaps in children and adolescents with emphasis on interpretation of diagnostic instruments and designing appropriate interventions in school settings. fee	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate students only
EDP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EDP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	597	Applied Research and Reflection	The dual purpose of the project is to synthesize learning from multiple areas of scholarship on teaching and learning, and to reflect on the content and process of the master's degree program. Culminating product includes a reflective paper with a corresponding project, such as a literature review, curricular model, technology product, or other project as agreed upon by the student and the student's advisor.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	651	Methods and Practices of Qualitative Research	Advanced course for students familiar with theory and extant work. Topics include data collection, analysis, reporting, and an extensive fieldwork project.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of COE 503 with a grade of C or better
EDP	652	Multivariate Procedures for Data Analysis	Educational applications of multivariate methods, including MANOVA, discriminant analysis, and exploratory factor analysis. Emphasizes analyzing data and reporting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	654	Structural Equation Modeling in Educational Research	Educational applications of confirmatory factor analysis, path analysis, and full latent variable models. Experience in conducting analyses and reporting results.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDP	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDP	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDP	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDP	513	Child Development	Examines problems and achievements experienced by children growing up in a technological society. Emphasizes discovering the child's perspective.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDP	514	Psychology of the Adolescent	Cognitive, physical, and social development of adolescents in contemporary society. Impact of family, school, and workplace on adolescent development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDP	523	Educational Assessment	Increases teachers' and others' competence in classroom assessment, grading, and testing. Emphasizes integration of curriculum, instruction, and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDP	303	Human Development	Selected aspects of child and adolescent development. Emphasizes possibilities for influence by teachers and parents.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L or SB	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
EDP	311	Educational Psychology for Future Teachers	Planning and conducting effective instruction based on learning theories and principles.	N	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3	SB	Pre-requisites: Admission to Professional Teacher Preparation Program
EDP	313	Childhood and Adolescence	Principles underlying total development of pre- and early-adolescent children. Emphasizes physical, intellectual, social, and emotional development with practical implications for teachers. Meets ADE requirement for one course in early adolescent psychology for middle grade endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
EDP	323	Professional Development, Learning, and Motivation	Applies educational psychology principles in classrooms; strategies for building classroom community; learner-centered and intentional teaching; and proactive professional development.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	
EDT	323	Computer Applications	Introduces database design principles using Microsoft Access and general programming concepts using the Visual Basic.Net programming language.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.	CS	Pre-requisites: EDT 321 or CSE 180 or any ACO, CIS, CSE, or CST course with a D or better or currently enrolled
EDT	329	Games, Simulations, and Virtual Environments	Focuses on the use of Gaming, Simulations, and Virtual Environments (GS/VE) in education and instruction. Examines how educational professionals and other practitioners can leverage students interests in digital culture to accelerate their learning. Participants explore the foundational, social, and cultural implications of these new media and the power they hold to engage learners in new ways. Discusses historical overview of GS/VE with an emphasis on educational applications. Analyzes the distinctive features of GS/VE from different pedagogical, psychological (cognitive/emotional), social, and entertainment perspectives. Participants learn how to analyze the design of games, simulations, and virtual environments, creating evaluative criteria for the selection of products in educational environments.	N	LEL	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDT	405	Presentation Technology for Multimedia	Explores multimedia hardware and software used in creating presentations for educational, corporate, and commercial applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

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EDT	406	Computer Graphics and Animation	Study and application of design and animation techniques for use in video or computer-based presentations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	455	Authoring Tools	Use of current authoring tools to design and deliver computer-based instructional materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		
EDT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-3		
EDT	501	Foundations and Issues in Educational Technology	Introduces educational technology. Examines accomplishments and issues in the field.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	502	Design and Development of Instruction	Design, development, and formative evaluation of objectives-based instructional materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	503	Instructional Media Design	Uses media selection, design, and production principles to prepare design specifications for solutions to instructional messages and products.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	504	Development of Computer-Based Instruction	Systematic design, development, and formative evaluation of computer-based instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	505	Multimedia Presentation Techs	Explores the design of multimedia presentations and the utilization of tools and resources to effectively deliver those presentations.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	506	Educational Evaluation	Procedures for evaluating educational programs, training systems, and new-technology applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	507	Trends in Performance Improvement	Introduces the field of human performance technology. Emphasizes the analysis of performance problems, their causes, and interventions.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: EDT 501 with B or better
EDT	511	Technology Applications in Education	Integrates and evaluates emerging technologies into K-12 and adult teaching and learning.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	520	Educational Technology and Training	Applies educational technology to training and human performance systems in business, industry, and government; emphasizes trends and project management.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 501 with a grade of C or better
EDT	523	Distance Education Theory and Practice	Explores development of distance learning principles by examining national and international systems and applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	525	Web Resources for Educators	Explores Web-based and distance learning applications for educators.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	527	Instructional Video Production	Design and production of instructional video.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 503 with a grade of C or better
EDT	528	Development of Web-Based Instruction	Design and development of online instruction using advanced technologies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	530	Technology Integration Methods across the Curriculum	Examines a constructivist approach to technology in education. Investigates technology as a catalyst for rethinking instructional goals and practices.	Y	LEL	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EDT	531	Hypermedia	Design, development, and evaluation of open-ended, nonlinear computer-based tools and applications.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 455 with a grade of C or better
EDT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completion of EDT 501, 502, and EDT 503 with a grade of C or better
EDT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completion of EDT 501, EDT 502, and EDT 503 with a grade of C or better
EDT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	594	Conf and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		

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EDT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	634	Technoliteracies	Online course explores the nature of digital communications and expanding definitions of what counts as text and as literate expression.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must be Post Bac, Non Degree Graduate or Degree Graduate. Students who have credit for RDG 634, may not enroll in EDT 634
EDT	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		
EDT	701	Research in Educational Technology	Review and analysis of research studies in educational technology. Methodology for designing, conducting, and reporting educational technology research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 501 and 502 with a grade of C or better
EDT	702	Research in Technology-Based Education	Critical exposure to theories, research, and methods in technology-based education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	703	Research in Distance Education	Seminar with emphasis on research in telecommunications and distance education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: EDT 523 with a grade of C or better
EDT	704	Emerging Technologies in Education	Examines the role and impact of emerging technologies in education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
EDT	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Completion of EDT 502 with a grade of C or better
EDT	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisites: Accepted in either the MED in EDTCH, PHD in EDTECH, or the certificate in EDTECH programs
EDT	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Completed EDT 501, EDT 502, and EDT 503 with a C or better
EDT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EDT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisites: Completion of EDT 701 with a grade of C or better
EDT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EDT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EDT	530	Technology Integration Methods across the Curriculum	Examines a constructivist approach to technology in education. Investigates technology as a catalyst for rethinking instructional goals and practices.	Y	LEL	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	545	Using the Internet in Education	Explores the Internet as an educational tool for research, inquiry-based learning, and online learning communities. Incorporates constructivist theory.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	546	Using Technologies for Presentations	Students create presentations appropriate for educational settings and electronic portfolios on CD-ROMs using scanners, digital/video cameras, and multimedia software. fee	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	547	Technology in Language Arts and Social Studies Education	Examines numerous ways technology is used to enhance teaching and learning in language arts and social studies classrooms.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	548	Technology in Mathematics and Science Education	Examines numerous ways technology is used to enhance teaching and learning in mathematics and science classrooms.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	549	Using the Internet and Case Studies to Solve Educational Problems	Provides a model of the use of distance education technologies.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	555	Advanced Web Site Design and Development	Prepares technology leaders to design and create interactive school and district Web sites.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	556	Managing School Information Systems	Applied course based on constructivist theory that examines the techniques and strategies of networking information systems within educational settings.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	575	Critical Issues in Technology	Exploration and critical analysis of theoretical issues related to using technology in education. Students do literature reviews for EDT 593.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EDT	180	Computer Literacy	Introduces personal computer operations and their place in society. Problem-solving approaches using databases, spreadsheets, and word processing. Credit is allowed for only EDT 180 or 321.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	Students may not sign up for EDT 180 who have received a C or better in EDT 321.
EDT	300	Computers in Education	Introduces general computer applications, teacher utility programs, World Wide Web, and evaluation of educational software. Required for majors in the Mary Lou Fulton College of Education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Initial Teacher Certification Program Admission
EDT	321	Computer Literacy	Surveys the role of computers in business, industry, education, and personal life. Lab experience with word processing, spreadsheet, and presentation software as well as Internet research and the creation of a personal Web site.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	CS	
EED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EED	510	Teaching Writing in the Elementary Classroom	Develops rationale, theory, and related practices for teaching writing in K-8 classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	511	Principles of Curriculum Development	Contemporary curriculum theories. Curriculum as an interrelated entity. Principles of conceiving and effecting change.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	526	Communication Arts in the Elementary School	Critical examination of school language arts teaching, focusing on theoretical assumptions regarding oral- and written-language development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	529	Science in the Elementary School	Problems and trends of current programs. Development of a balanced and articulated science program.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	530	Outdoor/Environmental Education	Use of various outdoor settings as laboratories for classroom-related experience, study, observation, inquiry, research, and recreation. Includes strategies and materials for developing environmental literacy.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
EED	537	Mathematics in the Elementary School	Contemporary mathematics teaching. Content, materials, and approaches to instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	538	Teaching Social Studies with Literature	Develops the rationale, resources, and strategies for adopting a literature-based approach to social studies teaching in grades K-8.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	548	Teaching Geometry 5-8	Practical ideas and activities for teaching informal geometry grades 5-8, based on research on how students learn geometry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
EED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	581	Diagnostic Practices in Mathematics	Specific skills in diagnosing and treating children's learning difficulties in mathematics. Includes practicum experiences, both on and off campus, in identifying strengths and weaknesses and initial remediation.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
EED	720	Language in Education	Sociolinguistic seminar on language issues in education, including language acquisition, classroom interaction, language attitudes, relation language, and class-gender ethnicity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	730	Discourse Analysis in Education	Surveys issues in and approaches to discourse analysis in educational research, with focus on students' projects using discourse analysis.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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EED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
EED	511	Principles of Curriculum Development	Contemporary curriculum theories. Curriculum as an interrelated entity. Principles of conceiving and effecting change.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	521	Instructional Planning and Management in the Inclusive Classroom	Planning and delivering instruction; organizing and managing classrooms; making adaptations for English language learners and students with special needs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	526	Communication Arts in the Elementary School	Critical examination of school language arts teaching, focusing on theoretical assumptions regarding oral- and written-language development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	529	Science in the Elementary School	Problems and trends of current programs. Development of a balanced and articulated science program.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	531	Teaching with Educational Technology	Focuses on using technology in K-12 classrooms. Addresses the integration of technology in all curricular areas for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	537	Mathematics in the Elementary School	Contemporary mathematics teaching. Content, materials, and approaches to instruction.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	538	Teaching Social Studies with Literature	Develops the rationale, resources, and strategies for adopting a literature-based approach to social studies teaching in grades K-8.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	564	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	576	Field Experience	Applies course content in elementary classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	0-3		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	578	Student Teaching in the Elementary School	Student teaching in elementary education setting for students in the MEd with Concentration in Teacher Certification.	N	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	579	Apprentice Teaching in Elementary Education	Apprentice teaching in elementary school classrooms. Must be taken four times for a total of 9 semester hours. Lab, field experience. Fee.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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EED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
EED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
EED	324	Social Studies in Elementary Schools	Social studies education standards, curriculum, and instructional and assessment strategies for all children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	396	Field Experience I		N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	397	Field Experience II	Observation, instruction, and management of small groups and the whole class. fee	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	411	Science in Elementary Schools	Science education standards, curriculum, instructional and assessment strategies for all children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	412	Mathematics in Elementary Schools	Methods of teaching mathematics to all students at the K-8 level, instructional planning and assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	414	Elementary School Curriculum and Organization	Rationales for instructional curricula; alternative curriculum designs and broad-based content; selected topics in school governance, finance, and law.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Co-requisites: Elem Ed student, EED 411, EED 412, RDG 413 and EED 496 OR PDS (Professional Development School) student
EED	420	Science Methods, Management, and Assessment in the Elementary School	Examines philosophies of science and how these relate to the implementation, management, and assessment of science teaching. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Initial Teacher Certification Program Admission; BLE 408, EED 455, EDT 300, RDG 432 and EED 496 completed with C or better or currently enrolled
EED	433	Language Method Management and Assessment	Theory on the social nature of oral and written language and congruent teaching, management, and assessment practices. Lecture, discussion, lab.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	464	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	478	Student Teaching in the Elementary School	Student teaching in elementary school classrooms, Synthesized experience in curriculum, instruction, and classroom management	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	479	Capstone Seminar in Elementary Education	Reflective, experienced-based integration of theory and practice; professional development for K-8 teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	480	Mathematics Methods, Management, and Assessment in the Elementary School	Beginning course in the teaching, management, and assessment of mathematics in grades K–8.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EED	492	Honors Directed Study	Honors Directed Study	N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisite: Must be an Honors student
EED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisite: Must be an Honors student
EED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
EED	496	Field Experience III	Applies course content in a K?8 school classroom. Emphasizes observation, pupil management, planning and delivery of instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-3		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisite: Admission to Professional Teacher Preparation Program
EED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7	L	Pre-requisite: Admission to Professional Teacher Preparation Program
EED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisite: Admission to Professional Teacher Preparation Program
EEE	101	Introduction to Engineering Design	Introduces engineering design, teaming, engineering profession; computer models and programming; communication skills; design of electrical and computer-based systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	2.		
EEE	120	Digital Design Fundamentals	Number systems, conversion methods, binary and complement arithmetic, Boolean algebra, circuit minimization, ROMs, PLAs, flipflops, synchronous sequential circuits. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-3		
EEE	202	Circuits I	Principles for analyzing linear and nonlinear circuits. Uses SPICE and MATLAB. Design and measurement of linear analog electrical systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: EE student with Intro to ES; Pre/Co-requisite: PHY 131 and MAT 274 or 275 (with C or better if completed) OR Non-EE student with any Intro to Engr, Pre/Co-requisite: PHY 131 and MAT 274 or 275
EEE	203	Signals and Systems I	Introduces continuous and discrete time signal and system analysis, linear systems, Fourier, and z-transforms.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: A grade of D or better in EEE 202 (or currently enrolled) or EEE 302 AND a grade of C or better in MAT 242, 342 or 343 or be co-enrolled in MAT 242, 342 or 343.
EEE	230	Computer Organization and Assembly Language Programming	Register-level computer organization. Instruction set architecture. Assembly language. Processor organization and design. Memory organization. IO programming, Exception/interrupt handling. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: A grade of D or better in CSE 100 or CSE 110 or CSE 200 AND a grade of D or better in CSE 120 or EEE 120.
EEE	241	Fundamentals of Electromagnetics	Vector analysis, differential operators, fourier analysis, scalar, vector fields, electro/magneto statics, time-varying fields, boundary value problems, dielectric, magnetic materials, Maxwell's equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: MAT 362 and PHY 131 with C or better or currently enrolled; ECE 201 with D or better OR MAT 267 or 272 and MAT 274 or 275 and PHY 131 with C or better or currently enrolled; EEE 202 with D or better or currently enrolled
EEE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		
EEE	304	Signals and Systems II	Communication, signal processing, control systems, continuous, discrete transforms, sampling theorem, analog, digital modulation, filter design, signal processing applications, state space. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 or EEE 303 completed with a grade of D or better or be currently enrolled in EEE 203
EEE	333	Hardware Design Languages and Programmable Logic	Develops digital logic with modern practices of hardware description languages. Emphasizes usage, synthesis of digital systems for programmable logic, VLSI. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students AND grade of D or better in CSE101,ECE100,200,EEE101 AND grade of D or better in CSE120 or EEE120 or be currently enrolled.
EEE	334	Circuits II	Design of analog and digital circuits. Diodes/BJTs/Mosfets. Digital and analog circuit building blocks. Fundamentals of mixed signal circuits. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE student and a grade of D or better in ECE201 or EEE202
EEE	335	Analog and Digital Circuits	Analog, digital microelectronic circuits and systems. Gate sizing, timing analysis, sequential digital circuits. Amplifiers, multi-stage op-amps, A/D, D/A converters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; Must have completed EEE 334 or ECE 334 with a grade of D or better or be currently enrolled in EEE 334
EEE	341	Engineering Electromagnetics	Time-varying electromagnetic fields, waves in homogeneous and stratified media, transmission lines, waveguides and cavity resonators, radiation and antennas. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS or BSE student; EEE 203 or EEE 303 completed with a D or better or currently enrolled in EEE 203; EEE 241 completed with D or better (or MAT 362 completed with a grade of C or better) or currently enrolled in EEE 241
EEE	350	Random Signal Analysis	Probabilistic and statistical analysis as applied to electrical signals and systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 203, EEE 303 or MAE 317 completed with a D or greater or currently enrolled in EEE 203 or MAE 317 or co-enrolling in EEE 203 OR Graduate Engineering students

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EEE	352	Properties of Electronic Materials	Schrodinger's wave equation, potential barrier problems, bonds of crystals, the band theory of solids, semiconductors, superconductor dielectric, and magnetic properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS or BSE students; MAT 362 with C or better or EEE 241 with a D or better or currently enrolled; PHY 241 or 361 with a C or greater or currently enrolled; CHM 114, 115, 116 or 118 with a D or greater or currently enrolled
EEE	360	Energy Systems and Power Electronics	Conventional and alternate energy sources for power systems, three-phase analysis, AC generators, transformers, induction, DC motors, power electronic speed control. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE student; EEE 202 or ECE 201 completed with a D or better or currently enrolled in EEE 202; EEE 241 completed with a D or better or currently enrolled OR Graduate Engineering student
EEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		
EEE	404	Real-Time DSP Systems	Digital signal processors, translating signals and systems concepts into real-time multimedia and communications applications, real-time algorithms. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 (or EEE 303) with D or better; EEE 230 (or CSE 230, EEE 225 or EEE 226) with D or better
EEE	407	Digital Signal Processing	Time and frequency domain analysis, difference equations, z-transform, FIR and IIR digital filter design, discrete Fourier transform, FFT, and random sequences. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 203 or EEE 303 completed with a D or greater or currently enrolled in EEE 203; MAT 342 or 343 completed with a C or greater or currently enrolled
EEE	425	Digital Systems and Circuits	Digital logic gate analysis and design. Propagation delay times, fan out, power dissipation, noise margins. Design of MOS and bipolar logic families, including NMOS, CMOS, standard and advanced TTL, ECL, and BiCMOS. Inverter, combinational and sequential logic circuit design, MOS memories, VLSI circuits. Computer simulations using PSPICE. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 335 completed with a D or better or currently enrolled
EEE	433	Analog Integrated Circuits	Analysis, design, and applications of modern analog circuits using integrated bipolar and field-effect transistor technologies. Fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 335 completed with a D or greater or currently enrolled
EEE	434	Quantum Mechanics for Engineers	Angular momentum, wave packets, Schroedinger wave equation, probability, problems in one dimension, principles of wave mechanics, scattering, tunneling, central forces, angular momentum, hydrogen atom, perturbation theory, variational techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 241 or EEE 340 completed with a grade of D or better or currently enrolled in EEE 241; EEE 352 or ECE 352 completed with a grade of D or better or currently enrolled in EEE 352
EEE	435	Fundamentals of CMOS and MEMS	Introduces basic CMOS processing and fabrication tools. Covers the fundamentals of thermal oxidation, CVD, implantation, diffusion, and process integration. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Must be an Engineering BS/BSE student AND earn a grade of D or better in EEE 436 or be co-enrolled in EEE 436.
EEE	436	Fundamentals of Solid-State Devices	Semiconductor fundamentals, pn junctions, metal-semiconductor contacts, metal-oxide-semiconductor capacitors and field-effect transistors, bipolar junction transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in EEE 352 or ECE 352.
EEE	437	Optoelectronics	Basic operating principles of various types of optoelectronic devices that play important roles in commercial and communication electronics; light-emitting diodes, injection lasers, and photodetectors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 436 with D or better
EEE	439	Semiconductor Facilities and Cleanroom Practices	Microcontamination, controlled environments, cleanroom layout and systems, modeling, codes and legislation, ultrapure water, production materials, personnel and operations, hazard management, advanced concepts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students and a grade of D or better in EEE 435.
EEE	443	Antennas for Wireless Communications	Fundamental parameters; radiation integrals; wireless systems; wire, loop, and microstrip antennas; antenna arrays; smart antennas; ground effects; multipath.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 341 with D or better
EEE	445	Microwaves	Waveguides; circuit theory for waveguiding systems; microwave devices, systems, and energy sources; striplines and microstrips; impedance matching transformers; measurements. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students; EEE 340 or EEE 341 completed with a D or better or currently enrolled in EEE 341
EEE	448	Fiber Optics	Principles of fiber-optic communications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 340 or EEE 341 completed with a D or better or currently enrolled in EEE 341
EEE	455	Communication Systems	Signal analysis techniques applied to the operation of electrical communication systems. Introduction to and overview of modern digital and analog communications. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE; EEE 350 completed with a D or better or currently enrolled; EEE 203 or EEE 303 completed with a D or better or currently enrolled in EEE 203
EEE	459	Communication Networks	Fundamentals of communication networks. Study of Seven-Layer OSI model. Focus on functionality and performance of protocols used in communication networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE and a grade of D or better in EEE 202 or 203.
EEE	460	Nuclear Power Engineering	Radioactivity and decay. Radiation interactions and dose. Nuclear reaction, fission and fusion theory. Fission reactors, four factor formula, moderation. Nuclear power, TMI, Chernobyl. Nuclear fuel cycle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in PHY241, 294 or 361 OR a grade of D or better in CHM114, 115 or 116 and a grade of C or better in MAT 274 or 275 and a grade of C or better in PHY241 or 361.
EEE	463	Electrical Power Plants	Generation of electric power using fossil, nuclear, and renewable, including solar, geothermal, wind, hydroelectric, biomass and ocean, energy sources. Power plant thermal cycle analysis. Cogeneration and combined cycles. Economics, operations, and design of electric power stations. Energy storage.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; CHM 114 or CHM 116 with D or better or currently enrolled; MAT 274 or MAT 275 with C or better or currently enrolled; MAE 240 (or ECE 340) with D or better or PHY 241 with C or better or currently enrolled
EEE	470	Electric Power Devices	Analyzes devices used for short circuit protection, including circuit breakers, relays, and current and voltage transducers. Protection against switching and lightning over voltages. Insulation coordination.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.

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EEE	471	Power System Analysis	Review of transmission line parameter calculation. Zero sequence impedance, symmetrical components for fault analysis, short circuit calculation, review of power flow analysis, power system stability, and power system control concepts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	472	Power Electronics and Power Management	Principles of switch mode power conversion, analysis, design and control of dc-dc converters, PWM rectifiers and inverters, power management, power electronics applications in information technology, renewable energy systems, motion control and lighting.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	473	Electrical Machinery	Operating principles, modeling and speed control of DC, brushless DC, and AC machines; power converters for DC and AC motors drives.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in EEE 360 or currently enrolled.
EEE	480	Feedback Systems	Analysis and design of linear feedback systems. Frequency response and root locus techniques, series compensation, and state variable feedback. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in EEE203 or MAE318 or be currently enrolled.
EEE	481	Computer-Controlled Systems	Implements computer-based, embedded, control systems using MATLAB xPC Target toolbox. Small-scale, representative projects demonstrate theoretical issues and provide hands-on expertise.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering BS/BSE students; EEE 203 and EEE 230 (or CSE 230) with D or better or only MAE 318 with D or better
EEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	488	Senior Design Laboratory I	Design process: research, concept, feasibility, simulation, specifications, benchmarking, and proposal generation. Technical communications and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.	L	Pre-requisites: Engineering BS/BSE student; ENG 102 (or 105 or 108), EEE 241, EEE 350, EEE 334, and 4 courses from EEE 304, 333, 335, 341, 352 or 360, all with D or better
EEE	489	Senior Design Laboratory II	Implement, evaluate, and document EEE 488 design. Social, economic, and safety considerations. Technical communications and team skills enrichment. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.	L	Pre-requisites: Engineering BS/BSE students; EEE 488 with D or better or be currently enrolled. Seniors or PostBacc undergraduates only.
EEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-6		Pre-requisites: Must be an Honors student in BSE Electrical Engineering; senior academic level
EEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	0-6	L	Pre-requisites: Must be an Honors student in BSE Electrical Engineering; senior academic level
EEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		Pre-requisites: Engineering BS/BSE student and a grade of D or better in EEE 433.
EEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-7		Pre-requisites: Engineering BS/BSE students only.
EEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-3		Pre-requisites: Senior Electrical Engineering BSE students only.
EEE	505	Time-Frequency Signal Processing	Joint time-frequency analysis of time-varying signals and systems; linear and quadratic time-frequency representations; applications in current areas of signal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students only.
EEE	506	Digital Spectral Analysis	Principles and applications of digital spectral analysis, least squares, random sequences, parametric, and nonparametric methods for spectral estimation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	507	Multidimensional Signal Processing	Processing and representation of multidimensional signals. Design of systems for processing multidimensional data. Introduces image and array processing issues.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	508	Digital Image and Video Processing and Compression	Fundamentals of digital image perception, representation, processing, and compression. Emphasizes image coding techniques. Signals include still pictures and motion video.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	509	DSP Algorithms and Software	Linear systems review, digital filter design, software aspects, DFT, FFT, random signals, programming aspects, applications projects, MATLAB and Java simulations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	510	Multimedia Signal Processing	Speech/audio coding algorithms. LPC, CELP, MPEG, Cell phone, DTV, cinema, and surround sound standards. MPEG/JPEG introduction.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	511	Artificial Neural Computation Systems	Networks for computation, learning function representations from data, learning algorithms and analysis, function approximation and information representation by networks, applications in control systems and signal analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in CHE 518, MSE 518, or MSE 475 you may not enroll in EEE 518
EEE	523	Advanced Analog Integrated Circuits	Analysis and design of analog integrated circuits: analog circuit blocks, reference circuits, operational-amplifier circuits, feedback, and nonlinear circuits.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	524	Communication Transceiver Circuits Design	Communication transceivers and radio frequency system design; fundamentals of transceivers circuits; RF, IF, mixers, filters, frequency synthesizers, receivers, CAD tools, and lab work on IC design stations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	4.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	525	VLSI Design	Analysis and design of Very Large Scale Integrated (VLSI) circuits. Physics of small devices, fabrication, regular structures, and system timing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	526	VLSI Architectures	High throughput and low-power VLSI architectures for signal processing. Array processor systems; data path design and optimization; memory design; high-level synthesis; low-power design at system level, algorithm level, and architecture level.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	527	Analog to Digital Converters	Detailed introduction to the design of Nyquist rate, CMOS analog to digital converters.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG/MS/MSE/PHD/MCS students OR Science & Engr Of Materials students AND a grade of C or better in EEE 523.
EEE	530	Advanced Silicon Processing	Thin films, CVD, oxidation, diffusion, ion-implantation for VLSI, metallization, silicides, advanced lithography, dry etching, rapid thermal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	531	Semiconductor Device Theory I	Transport and recombination theory, pn and Schottky barrier diodes, bipolar and junction field-effect transistors, and MOS capacitors and transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	532	Semiconductor Device Theory II	Advanced MOSFETs, charge-coupled devices, solar cells, photodetectors, light-emitting diodes, microwave devices, and modulation-doped structures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students and a grade of C or better in EEE 531 or be currently enrolled OR Science & Engr Of Materials PhD students.
EEE	533	Semiconductor Process/Device Simulation	Process simulation concepts, oxidation, ion implantation, diffusion, device simulation concepts, pn junctions, MOS devices, bipolar transistors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	534	Semiconductor Transport	Carrier transport in semiconductors. Hall effect, high electric field, Boltzmann equation, correlation functions, and carrier-carrier interactions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	535	Electron Transport in Nanostructures	Nanostructure physics and applications. 2-D electron systems, quantum wires and dots, ballistic transport, quantum interference, and single-electron tunneling.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	536	Semiconductor Characterization	Measurement techniques for semiconductor materials and devices. Electrical, optical, physical, and chemical characterization methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	537	Semiconductor Optoelectronics	Electronic states in semiconductors, quantum theory of radiation, absorption processes, radiative processes, nonradiative processes, photoluminescence, and photonic devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	538	Introduction to Microelectromechanical Systems	Microelectromechanical systems and devices emphasizing analytical and numerical modeling of actuation and sensing mechanisms with an overview of fabrication technology.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	539	Intro Solid-State Electronics	Crystal lattices, reciprocal lattices, quantum statistics, lattice dynamics, equilibrium, and nonequilibrium processes in semiconductors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	540	Fast Computational Electromagnetics	Method of moments, finite difference time-domain, finite element methods implemented using fast algorithms (wavelets, FMM, Nystrom) to gain high efficiency.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	541	Electromagnetic Fields and Guided Waves	Polarization and magnetization; dielectric, conducting, anisotropic, and semiconducting media; duality, uniqueness, and image theory; plane wave functions, waveguides, resonators, and surface guided waves.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	543	Antenna Analysis and Design	Impedances, broadband antennas, frequency independent antennas, miniaturization, aperture antennas, horns, reflectors, lens antennas, and continuous sources design techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	544	High-Resolution Radar	Fundamentals; wideband coherent design, waveforms, and processing; stepped frequency; synthetic aperture radar (SAR); inverse synthetic aperture radar (ISAR); imaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	545	Microwave Circuit Design	Analysis and design of microwave attenuators, in-phase and quadrature-phase power dividers, magic tees, directional couplers, phase shifters, DC blocks, and equalizers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	546	Advanced Fiber Optics	Theory of propagation in fibers, couplers and connectors, distribution networks, modulation, noise and detection, system design, and fiber sensors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	547	Microwave Solid-State Circuit Design I	Applies semiconductor characteristics to practical design of microwave mixers, detectors, limiters, switches, attenuators, multipliers, phase shifters, and amplifiers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	548	Coherent Optics	Diffraction, lenses, optical processing, holography, electro-optics, and lasers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	549	Lasers	Theory and design of gas, solid, and semiconductor lasers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	550	Transform Theory and Applications	Introduces abstract integration, function spaces, and complex analysis in the context of integral transform theory. Applications to signal analysis, communication theory, and system theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	551	Information Theory	Entropy and mutual information, source and channel coding theorems, applications for communication and signal processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	552	Digital Communications	Complex signal theory, digital modulation, optimal coherent and incoherent receivers, channel codes, coded modulation, Viterbi algorithm.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	553	Coding and Cryptography	Introduces algebra, block and convolutional codes, decoding algorithms, turbo codes, coded modulation, private and public key cryptography.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	554	Random Signal Theory	Applies statistical techniques to the representation and analysis of electrical signals and to communications systems analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	555	Modeling and Performance Analysis	Modeling and performance analysis of stochastic systems and processes such as network traffic queueing systems and communication channels.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	556	Detection and Estimation Theory	Combines the classical techniques of statistical inference and the random process characterization of communication, radar, and other modern data processing systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	557	Broadband Networks	Physics of wireless and optical communications. Broadband multiplexing and switching methods. Blocking and queueing analysis. Network optimization, routing, and economics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	558	Wireless Communications	Cellular systems, path loss, multipath fading channels, modulation and signaling for wireless, diversity, equalization coding, spread spectrum, TDMA/FDMA/CDMA.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	562	Nuclear Reactor Theory and Design	Principles of neutron chain reacting systems. Neutron diffusion and moderation. One-, two-, and multigroup diffusion equation solution methods. Heterogeneous reactors. Nuclear fuel steady-state performance. Core thermal-hydraulics. Core thermal design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	563	Nuclear Reactor System Dynamics and Diagnostics	Time-dependent solution to neutron diffusion equation. Reactor kinetics and reactivity changes. Dynamics, stability, and control of reactor systems. Modeling neutronic and thermal processes. System characterization in time and frequency domains. Reactor surveillance and diagnostics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	564	Interdisciplinary Nuclear Power Operations	Nuclear power plant systems. Studies interrelationship and propagation of effects that systems and design changes have on one another, especially in relation to nuclear power plant safety and operations. Case studies and design projects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	571	Power System Transients	Simple switching transients. Transient analysis by deduction. Damping of transients. Capacitor and reactor switching. Transient recovery voltage. Travelling waves on transmission lines. Lightning. Protection of equipment against transient overvoltages. Introduces computer analysis of transients.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	572	Advanced Power Electronics	Analyzes device operation, including thyristors, gate-turn-off thyristors, and transistors. Design of rectifier and inverter circuits. Applications such as variable speed drives, HVDC, motor control, and uninterruptable power supplies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	573	Electric Power Quality	Sinusoidal waveshape maintenance; study of momentary events, power system harmonics, instrumentation, filters, power conditioners, and other power quality enhancement methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	574	Computer Solution of Power Systems	Algorithms for digital computation for the Newton and fast-decoupled power flow problem, and fault analysis. Sparse matrix and vector programming methods, creation of elimination trees, network equivalencing, solution of the least squares problem, introduction to state estimation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	575	Power System Stability	Dynamic performance of power systems with emphasis on stability. Modeling of system components and control equipment. Analysis of the dynamic behavior of the system in response to small and large disturbances. Knowledge of EEE470, 471 and 473 (or equivalents) is required to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Graduate Engineering student
EEE	577	Power Engineering Operations and Planning	Economic dispatch, unit commitment, dynamic programming, power system planning and operation, control, generation modeling, AGC, and power production.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	579	Power Transmission and Distribution	High-voltage transmission line electric design; conductors, corona, RI and TV noise, insulators, clearances. DC characteristic, feeders voltage drop, and capacitors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	581	Filtering of Stochastic Processes	Modeling, estimation, and filtering of stochastic processes, with emphasis on the Kalman filter and its applications in signal processing and control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	582	Linear System Theory	Controllability, observability, and realization theory for multivariable continuous time systems. Stabilization and asymptotic state estimation. Disturbance decoupling, noninteracting control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	585	Digital Control Systems	Analysis and design of digital and sampled data control systems, including sampling theory, z-transforms, the state transition method, stability, design, and synthesis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	586	Nonlinear Control Systems	Stability theory, including phase-plane, describing function, Liapunov's method, and frequency domain criteria for continuous and discrete, nonlinear, and time-varying systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	587	Optimal Control	Optimal control of systems. Calculus of variations, dynamic programming, linear quadratic regulator, numerical methods, and Pontryagin's principle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	588	Design of Multivariable Control Systems	Practical tools for designing robust MIMO controllers. State feedback and estimation, model-based compensators, MIMO design methodologies, CAD, real-world applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Master of Engineering or Electrical Engineering MS/MSE/PHD students
EEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Department of Electrical Engineering	1.		
EEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-4		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	606	Adaptive Signal Processing	Principles and applications of adaptive signal processing, adaptive linear combiner, Wiener least-squares solution, gradient search, performance surfaces, LMS/RLS algorithms, block time/frequency domain LMS.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	607	Speech Coding for Multimedia Communications	Speech and audio coding algorithms for applications in wireless communications and multimedia computing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	625	Advanced VLSI Design	Practical industrial techniques, circuits, and architectures appropriate to high-performance and low-power digital VLSI designs such as microprocessors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	627	Oversampling Sigma-Delta Data Converters	Introduces design and analysis of sigma delta oversampled data converters from an IC design perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		
EEE	631	Heterojunctions and Superlattices	Principles of heterojunctions and quantum well structures, band lineups, optical, and electrical properties. Introduces heterojunction devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students and a grade of C or better in EEE 531 or currently enrolled OR Science & Engr Of Materials PhD students.
EEE	641	Advanced Electromagnetic Field Theory	Cylindrical wave functions, waveguides, and resonators; spherical wave functions and resonators; scattering from planar, cylindrical, and spherical surfaces; Green's functions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	643	Advanced Topics in Electromagnetic Radiation	High-frequency asymptotic techniques, geometrical and physical theories of diffraction (GTD and PTD), moment method (MM), radar cross section (RCS) prediction, Fourier transforms in radiation, and synthesis methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.

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EEE	647	Microwave Solid-State Circuit Design II	Practical design of microwave free-running and voltage-controlled oscillators using Gunn and Impatt diodes and transistors; analysis of noise characteristics of the oscillator.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	686	Adaptive Control	Main topics covered: adaptive identification, convergence, parametric models, performance and robustness properties of adaptive controllers, persistence of excitation, and stability.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, Electrical Engineering MS/MSE/PHD students
EEE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	731	Advanced MOS Devices	Threshold voltage, subthreshold current, scaling, small geometry effects, hot electrons, and alternative structures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	3.		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students.
EEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Electrical Engineering PhD students
EEE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		Pre-requisites: Engineering MENG, MS, MSE, PhD and MCS students OR Science & Engr Of Materials PhD students.
EEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-15		
EEE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Department of Electrical Engineering	1-12		
EEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Department of Electrical Engineering	1.		
EEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Department of Electrical Engineering	1-15		
EET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
EET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	301	Electric Circuit Analysis II	Analysis of continuous-time signals and linear systems of using Laplace and Fourier response of circuits.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; EET 208 with D or better OR Technology and Innovation or Fulton Engineering graduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EET	304	Transmission Lines in Computer Networks	Theory and application of transmission lines in high-speed computer networks. Signal propagation and impedance matching.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		
EET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	396	Professional Orientation	Technical, professional, economic, and ethical aspects of electronics/computer engineering technology practice and industrial organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		
EET	401	Digital Signal Processing for Multimedia	Applies DSP techniques to multimedia. Digital filter analysis and design. Time and frequency techniques. Computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; MAT 262 or MAT 272 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EET	403	PLCs, Sensors and Actuators	Applications, programming, and troubleshooting using PLCs. Interfacing to motors, sensors, and actuators. Fluid power principles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EET	406	Control System Technology	Control system components, analysis of feedback control systems, stability, performance, and application.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3-4		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; EET 301 and MAT 262 (or MAT 272) with D or better. If you have credit in EET 506, you may not enroll in EET 406
EET	407	Energy Conversion and Applications	Electricity, magnetism, mechanics, heat and units, and three-phase circuits. Electrical machines, transformers, generation, transmission, and distribution of electrical energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Must be Tech Sci or Engr BS/BSE/NonDegree AND Univ Cum GPA is 2.25 or greater AND must have earned D or greater in EET 208 or currently enrolled OR must be Tech Sci or Engr NonDegree, Tech Sci BAS/MS/MSTECH or Master Computing Studies
EET	410	Electronic Circuits II	Analysis and design of OP-amps, power amplifiers, and digital logic families. Feedback design using frequency response. Computer analysis and design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; EET 301 and EET 310 with D or better OR Technology and Innovation or Fulton Engineering graduate student or TS/ES non-degree student
EET	430	Instrumentation and Measurement Systems	Instrumentation and measurement techniques, sensors operating principles. Signal and error analysis. Signal conditioning and data acquisition.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 310 with D or better
EET	460	Power Electronics	Analyzes circuits for control and conversion of electrical power and energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; EET 301, EET 310 and EET 407 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EET	501	Digital Signal Processing Applications	Applies DSP techniques to the design and analysis of digital filters. Solution of filtering problems using computer techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EET	506	System Dynamics and Control	Time, frequency, and transform domain analysis of physical systems. Transfer function analysis of feedback control systems performance and stability. Compensation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	508	Digital Real-Time Control	Sample data control techniques and applications to process control.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	530	Electronic Test Systems and Applications	Analysis, design, and application of electronic test equipment, test systems, specifications, and documentation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 310 with D or better
EET	560	Industrial Electronics and Applications	Analysis, design, and application of special electronic devices and systems to industrial control, power, communications, and processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	578	Digital Filter Hardware Design	Hardware design of FIR and IIR filters, including adaptive filters, based on DSP chips. Develop new applications using DSP microprocessor systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	579	Digital Image Communication	Image capture, transform, compression, storage, and transmission. Provides computer environment (software and hardware) to emphasize the practical aspect.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EGR	101	Introduction to Engineering Design I	Introduces engineering as a profession, critical thinking in engineering design and modeling, team dynamics, engineering communication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
EGR	102	Introduction to Engineering Design II	Development and experimental verification of engineering models, engineering design, data acquisition, critical analysis of data, introduction to CADD, engineering communications.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: EGR 101 and MAT 170 with D or better; Pre or Co-requisite: ENG 101 (or ENG 105, 107 or 111) with D or better if completed
EGR	126	Engineering Applications of MATLAB	Using MATLAB to solve engineering problems; problem solving; computational and programming uses of MATLAB.	N	STO	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better

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EGR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	201	Fall Multidisciplinary Project	Design, professionalism, and engineering practice developed in a multidisciplinary project setting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: APM 270 and EGR 102 with D or better
EGR	202	Spring Multidisciplinary Project	Design, problem solving, and engineering practice developed in a multidisciplinary project setting. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: APM 270 and EGR 102 with D or better
EGR	220	Computer Hardware for Engineers	Computer architecture, types of memory, operating systems and interrupts, buses and multiplexing, error detection and correction, Internet, the Web, encryption.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better or currently enrolled
EGR	221	Engineering Mechanics: Statics	Introduces the concepts of force, moment, and their relationships to the static equilibrium of a physical object.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and EGR 102 with D or better
EGR	222	Mechanics of Materials	Behavior of solid bodies subjected to loading. Stresses, strains, and displacements in bodies Analysis and design in solid mechanics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and EGR 102 with D or better
EGR	223	Engineering Thermodynamics	Heat; conservation of energy; first and second laws of thermodynamics; open and closed systems; entropy, enthalpy, and internal energy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 and CHM 113 with D or better
EGR	224	Engineering Materials Selection	Methods of selecting materials for specific applications based on mechanical loading, electrical, thermal, and environmental constraints.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102, APM 270 and PHY 121 with D or better
EGR	225	Instrumentation I	Introduces instrumentation systems and components, including transducers, associated electronics, and data acquisition and analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 and EGR 102 with D or better
EGR	226	Engineering Applications of LabView	Uses LabView to solve engineering problems; problem solving, data acquisition, and control using LabView.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: MAT 170 with D or better or currently enrolled
EGR	227	Manufacturing Processes I	Overview of manufacturing processes, including operating principles, process selection, and production economics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102 with D or better
EGR	229	Engineering Ethics and Professionalism	Case studies in engineering ethics and professionalism.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 101 and ENG 101 with D or better
EGR	230	Fluid Mechanics	Fluid properties, fluid statics, fluid continuum systems, control volumes, boundary control surfaces, energy and momentum, hydraulics, pipes, open channels, turbomachines.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 221 with D or better
EGR	231	Engineering Mechanics: Dynamics	Rectilinear and planar motions of a particle and their relationships to the forces on it.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 with D or better
EGR	234	Structure and Properties of Engineering Materials	Relationships among material structure, processing, and properties. Mechanical, electrical, and magnetic properties. Corrosion.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: CHM 113 and MAT 170 with D or better
EGR	235	Instrumentation II	Frequency domain analysis of instrumentation systems and components, including transducers, associated electronics, and data acquisition and analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 225 and APM 270 with D or better
EGR	238	Feedback Control	Introduces modeling, analysis, and design of feedback control systems, including block diagrams, transient responses, and linear controllers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: PHY 121 with D or better
EGR	239	Engineering Economics	Economic dimensions in the evaluation of engineering alternatives. Income and cash flow. Time value of money. Cost/benefit analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 102 and MAT 170 with D or better
EGR	280	Engineering Statistics	Applications-oriented introduction to statistics with computer-based experience using statistical software for formulating and solving engineering problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.	CS	Pre-requisites: APM 270 with D or better
EGR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	301	Fall Concentration Project	Design, communication, and critical thinking developed in a project setting based on selected concentration. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: ENG 102, EGR 201 and EGR 202 with D or better; MAT 267, MAT 272 or MAT 294/APM 294 - Mathematics of Change III with C or better
EGR	302	Spring Concentration Project	Design, engineering practice, and communication developed in a project setting based on selected concentration. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: ENG 102, EGR 201 and EGR 202 with D or better; MAT 267, MAT 272 or MAT 294/APM 294 - Mathematics of Change III with C or better
EGR	331	Electrical Implementation Technology	Conducting electrical projects using the facilities of the ASU Polytechnic campus. Juniors majoring in engineering or technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 or EET 301 with D or better
EGR	332	Electrical Power and Heat	Generation and distribution of electrical power within localized systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	333	Distributed Circuits and Systems	Analysis and modeling of the generation and distribution of electrical signals and energy across distributed systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	335	Instrumentation III	Noise in electrical systems and associated limits on instrumentation and measurement.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better
EGR	336	Introduction to Mechatronics	Pneumatic, hydraulic, mechanical, and electrical actuators. Models of mechatronic systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 231, EGR 235 and EGR 238 with D or better
EGR	337	Remote Sensing and Imaging Principles	Remote sensing and imaging principles with a focus on land development applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: CHM 113, EGR 280, and MAT 272 with a grade of D or better, or currently enrolled
EGR	339	Fabrication of Electrical Systems	Overview of electrical fabrication techniques; design cycle time, cost, quality, reliability, product life cycle, and testing; programmable versus hard-wired implementation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better; MAT 274 or MAT 275 with D or better
EGR	340	Engineering Thermo-Fluids I	First and second laws of thermodynamics, systems, processes, equations of state, property tables. Fluid statics, conservation of momentum, Bernoulli's equation, applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: PHY 111 or PHY 121 with D or better; APM 266, APM 271, MAT 266 or MAT 271 with D or better
EGR	341	Testing and Failure Prevention	Testing behavior of engineering materials under various loads. Evaluation of causes, mechanisms, and prevention of failure in structures and components.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 221, EGR 222 and EGR 231 with D or better

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EGR	342	Computer-Aided Engineering	Theory and use of computer tools for high-level engineering analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: APM 271, CHM 113, EGR 221, EGR 222 and EGR 231 with D or better
EGR	343	Mechanics of Solid Materials	Studies strength and physical performance, such as deformations and load-carrying capacity, of natural and artificial solid structures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 221 and EGR 222 with D or better
EGR	346	Engineering Design	Applies fundamentals of mechanics in analysis and synthesis of machine components and systems, with emphasis on stress and failure.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		
EGR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	401	Engineering Capstone Project I	First half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier course work. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisites: EGR 301 and EGR 302 with D or better or currently enrolled
EGR	402	Engineering Capstone Project II	Second half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier course work. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	4.		Pre-requisite: EGR 401 with D or better taken within one previous term or currently enrolled
EGR	432	Engineering Thermo-Fluids II	Thermodynamic analysis of mixtures and power cycles. Design and analysis of fluid systems, conduction heat transfer, and introduction to convection and radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Students who have credit in MET 432, may not enroll in EGR 432
EGR	433	Transforms and Systems Modeling	State-space and transform-domain modeling and analysis of electrical and electromechanical systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 235 with D or better, MAT 274 or MAT 275 with D or better; MAT 342 or MAT 343 with D or better
EGR	434	Digital Signal Processing: Media Standards	Introduces signal compression and reconstruction; audio, image, and video media standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	435	Digital Signal Processing: Filtering	Introduces digital filtering, FIR and IIR filters, filter design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	436	Wireless Communication Principles	Introduces wireless digital communications systems; overview of important concepts, including coding, modulation, equalization, decoding, and multiple access protocols.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	437	Wireless Communication Protocols	Surveys commercially important digital wireless protocols.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 433 with D or better
EGR	438	Electromagnetic Compatibility and Interference	Electromagnetic compatibility and interference. Grounding and shielding techniques. Cables, connectors, and leads. Regulations and standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	1.		Pre-requisites: EGR 235 with D or better; PHY 331 with D or better
EGR	445	Mechanical Engineering Systems	Design and modeling of multicomponent electromechanical systems. Applications of computers, controllers, electronics using system hardware and software development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering	3.		Pre-requisites: EGR 301 or EGR 302 with D or better; EGR 238 with D or better
EGR	492	Honors Directed Study		N	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering	1-6		
EGR	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering	1-6	L	Pre-requisites: Must be an Honors student
EGR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1-4		
EGR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering	1.		
ELL	515	Structured English Immersion (SEI) Methods	Addresses the role of language and culture in teaching, program types, and specific SEI strategies for teaching English Language Learners (ELLs). Credit is allowed for only ELL 515 or 415.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ELL	516	Advanced SEI Methods for Ells	More fully prepares teachers for linguistically diverse classrooms in which there are students learning through SEI methodology. Credit is allowed for only ELL 516 or 416.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ELL	416	Advanced SEI Methods for ELLs	More fully prepares teachers for linguistically diverse classrooms in which there are students learning through SEI methodology. Credit is allowed for only ELL 416 or 516.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
ELS	501	Environmental Life Sciences: Grand Challenge: Global Climate Change	Introduces first-year graduate students to a range of fields related to the Environmental Life Sciences graduate program. Co-instructed by an interdisciplinary faculty team, combines overview lectures and active discussion of current literature in the fields of inquiry. Culminates in synthetic collaborative research proposals on topics that foster transdisciplinary approaches to environmental life science questions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
ELS	502	Environmental Life Sciences: Field Camp	Combines lecture, field, and laboratory components; provides opportunities to develop field skills relevant to current questions in environmental life science, and to carry out a wide range of observations and measurements in natural systems. Instructed by an interdisciplinary faculty team. Travel out of the country is required and students need to be in possession of a valid passport. Prerequisite: ELS 501 or Instructor Approval.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: ELS 501
ELS	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ELS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		

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ELS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
ELS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
ELS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
ELS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
EN	106	Lit Apprec		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of English	3.		
EN	584	Internship		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of English	3.		
ENE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-4		
ENE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-12		
ENE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Dean, Mary Lou Fulton Inst Grad School Education	1-15		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y

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ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Prerequisite(s): TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) or WAC 107 with A, B, C or Y
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	111	Learning Community Composition I	Discovering, researching, and developing ideas in relation to the writer's purpose, subject, and audience. Only taught within a Liberal Arts (CLAS) Learning Community.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	112	Learning Community Composition II	Critical reading and writing; emphasis on rhetorical strategies of argumentation. Requires research paper. Only taught within a CLAS Learning Community.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 101 or ENG 111 with C or better
ENG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	197	Medical Writing	For students in the MedStart summer program. Designed to further critical thinking, reading, and writing skills for students interested in a medical career.	N	LEL	N	GNA	Liberal Arts and Sciences	Department of English	3.		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: Literature, Writing & Film (BA, minor, certificate, BIS), Pre Sec Educ- English, Sec Ed- English, English major or minor (Linguistics, Literature or Creative Writing) or BIS with English emphasis; ENG 102, ENG 105 or ENG 108 with C or better
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H & G	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	214	English Grammar and Usage	Fundamentals of English grammar (word and phrase structure), English usage (punctuation, grammatical correctness), and grammatical and usage theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	215	Strategies of Academic Writing	Advanced course in techniques of analyzing and writing academic expository prose. Writing is research based.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	217	Writing Reflective Essays	Critical examination of the influences discourse has on formation of identity; narrative analyses of self and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	218	Writing About Literature	Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	245	Popular Culture Issues	Selected topics in various forms of popular culture related to written texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	1-6		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better

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ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	302	Business Writing	Advanced interdisciplinary writing course designed to improve the workplace writing competence of W. P. Carey School of Business professional and preprofessional students. Lecture, discussion, case studies, cooperative learning, interactive, Internet, student presentations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	303	Classical Backgrounds of English Literature	Readings of Greek and Latin literature in translation as they relate to literature in English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	307	Writing Science Fiction	Writing science fiction, primarily the short story.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	310	Intermediate Creative Writing	Intermediate creative writing in genres other than poetry, fiction, or science fiction.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 210 with C or better
ENG	312	English in its Social Setting	Introduces the sociolinguistic study of the English language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU or SB	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	313	Phonology and Morphology	Introduces English morphology, phonology, etymology, and phonetic aspects of rhyme, alliteration, and other sound-based literary devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	314	Modern Grammar	Modern descriptive models of English grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	315	Medieval Literature in Translation	Medieval literature (insular and continental) in translation, from Beowulf to Malory (excluding Chaucer), emphasizing cultural and intellectual backgrounds.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	321	Shakespeare	Readings in Shakespeare's major comedies, tragedies, histories, romances and/or poems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	325	Restoration and the 18th Century	Writers and movements in nondramatic literature of the restoration and early 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	326	English Drama 1660-1800	English drama 1660-1800.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	
ENG	328	The Novel to Jane Austen	From origins of prose fiction through the 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU & H	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	329	19th-Century British Fiction	Includes such authors as Austen, Dickens, Eliot, and Conrad.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	330	19th-Century British Poetry	Romantic and Victorian poets studied in context.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	331	American Drama	Major works in the development of American drama from its beginnings to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	335	American Poetry	Themes and developments in American poetry.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	337	Major American Novels	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	342	20th-Century British and Irish Literature	Major works in the development of literature since 1900, studied in their historical and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	345	Selected Authors or Issues	Different topics may be offered. Film topics with lab may carry 4 credits. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3-4		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	353	African American Literature: Beginnings through the Harlem Renaissance	Focuses on the history of African American literature through the Harlem Renaissance, as exemplified in selected slave narratives, poems, and fiction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	354	African American Literature: Harlem Renaissance to the Present	Examines the literary productions of African Americans from the Harlem Renaissance (about 1920) to the present focusing on fiction, poetry, drama, and essays.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
ENG	355	European Dramatic Traditions	Development of European drama since Aeschylus.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	356	The Bible as Literature	Readings in the Jewish and Christian Scriptures in modern translation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	359	American Indian Literature	Selected oral traditions of American Indians and their influences on contemporary Native American literary works.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	364	Women and Literature	Approaches to issues of gender and representation in literature by and about women.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	365	History of Film	Development of motion pictures.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3-4	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	369	Science Fiction Studies	Development of science fiction and fantasy literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	372	Document Production	Introduces document design and production. Practice in critique and in writing the content of publications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	374	Technical Editing	Fundamentals of editing technical and professional materials. Role of editors in analyzing, revising, and polishing manuscripts. Successful writer-editor dialogues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	385	Career Development for English Majors	Theoretical and practical aspects of career planning related to skills and interests developed in English studies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better

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ENG	387	Intermediate Creative Writing Workshop in Poetry	Intermediate writing of poetry. Requires term paper or equivalent out-of-class written work.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 210: Poetry or ENG 287 with C or better. Students who have credit for ENG 310-Interm Fiction, may not enroll in ENG 387
ENG	388	Intermediate Creative Writing Workshop in Fiction	Intermediate writing of fiction. Requires term paper or equivalent out-of-class written work.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 210: Fiction or ENG 288 with C or better. Students who have credit for ENG 310-Intermed Poetry, may not enroll in ENG 388
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	400	History of Literary Criticism	Major critics and critical traditions in the Western world.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU) & H	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	401	Topics in Critical Theory	Major critical schools of recent decades--postcolonialist, psychoanalytic, deconstructionist, feminist, new historicist.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	409	Advanced Screenwriting	Utilizing the elements of storytelling, students outline, develop, and write a feature-length screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	411	Advanced Creative Writing	Advanced creative writing in genres other than poetry, fiction, creative nonfiction, or screenwriting.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 310 with C or better
ENG	412	Creative Nonfiction	Lectures, discussion, and criticism concerning techniques of writing creative nonfiction for publication.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 310 or ENG 388 or ENG 411 with C or better
ENG	413	History of English Language	Development of English from the earliest times to the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: Students who have credit for LIN 517, may not enroll in ENG 413
ENG	414	Studies in Linguistics	Relationship of linguistics to literature, gender, power, and other social issues.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisite: ENG 200 with C or better
ENG	415	Studies in Medieval Literature and Culture	Medieval English and continental literature in translation, emphasizing cultural and intellectual backgrounds. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	416	Chaucer in Middle English	Yearly alternate between Chaucer's The Canterbury Tales and Troilus and Criseyde. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	418	Renaissance Literature	Prose, poetry, and drama of the Renaissance Era with an emphasis on cultural history.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	419	English Literature in the Early 17th Century	Topics, authors, and themes in English literature, 1603-1660.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	421	Studies in Shakespeare	Close examination in selected dramatic and/or nondramatic works.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	422	Special Topics in Shakespeare	Close examination in selected dramatic and/or nondramatic works.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	423	Renaissance Drama	Topics, authors, and themes in the drama of the Tudor and early Stuart periods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	424	Milton	Selected prose and poetry, emphasizing Paradise Lost, Paradise Regained, and Samson Agonistes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	425	Studies in Romanticism	Romanticism in continental, British, and American literature and culture.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	426	British Culture and Empire	Examines British imperial culture in art and literature, 1870-1914, and postcolonial theory.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: A grade of B or better in one course in ARS, ENG, or HST at 200 level or higher
ENG	427	Studies in 18th-Century Literature and Culture	Literary, social, and cultural issues of the period studied in an interdisciplinary format. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	428	The Pre-Raphaelites	Visual and literary works by Victorian Pre-Raphaelites as works in themselves and through relations between images and texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre- or Co-requisites: ARS 102, ENG 221, or HST 202 (with D or better if completed)
ENG	429	Studies in European Literature and Culture	Literary, cultural, and historical issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	430	Studies in Victorian Literature and Culture	Literary, social, and cultural issues of the period studied in an interdisciplinary format. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	434	Studies in the Literature and Culture of the Americas	Literature and culture of North America, South America, and the Caribbean. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU & C	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	436	Studies in Anglophone Literature and Culture	Literary, social, and cultural issues of English-speaking former colonial territories. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	440	Studies in American Literature and Culture	Various genres in their literary, political, theoretical, and historical contexts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	442	Studies in 20th-Century British and Irish Literature and Culture	Major literary genres (novel, poetry, and drama) in their cultural and historical contexts. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	444	Studies in American Romanticism	Fiction, poetry, and essays of such 19th-century authors as Hawthorne, Emerson, Melville, Thoreau, Fuller, Whitman, and Dickinson. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	445	Studies in American Realism	Writers and influences that shaped the development of literary realism. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	447	Experimental Narrative	Examines texts that experiment with form, content and narrative perspective within print, film and digital media.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 200; ENG 200-level literature course, or SLC 202, or FMS 100; FMS 200. Students who have credit for SLC 450 or FMS 442 may not enroll in ENG 447
ENG	448	Studies in Irish Literature and Culture	Themes and problems pertaining to Irish literature, film, and social and cultural history.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	452	Studies in the Novel	May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	453	Studies in the American Novel	Poetics and politics of the novel, 18th through 21st centuries. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	457	Studies in American Poetry	May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	458	Latina/o Literature	Development of Latina/o literature. Study of genres and themes; attention to literary antecedents of the new U.S.-based Latina literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: If you have credit for FMS 464, you may not sign up for ENG 458/TCL 464
ENG	459	Studies in African American/Caribbean Literatures	Studies in African American or Caribbean literatures according to genre, period, theory, or selected authors. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	461	Studies in Women and Literature	Advanced topics in literature by or about women.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	465	Studies in Film	Advanced topics in cinema.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3-4		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	469	Science and Literature	Historical and theoretical links between science and literature, from Francis Bacon to the present, examined in cultural context. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	470	Symbols and Archetypes in Children's Literature	Various critical approaches and recurring themes studied in relation to classical and contemporary children's literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 102, 105, or 108 with C or better and one other ENG course with C or better
ENG	471	Literature for Young Adults	Prose and poetry that meet the interests and capabilities of junior high and high school students. Stresses recent literature. A passing grade of at least "C" (2.00) required before students are permitted to student teach in English.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.	HU	Pre-requisites: ENG 102, 105, or 108 with C or better and one other ENG course with C or better
ENG	472	Rhetorical Studies	Developments in theory and practice of major rhetorical inquiries.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: Completed ENG 102, 105, or 108 with C or better. Must have 56 or more earned hours
ENG	474	Review Writing	Advanced writing course exploring rhetorical approaches to writing reviews.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Completed ENG 102, 105, or 108 with C or better. Must have 56 or more earned hours
ENG	475	Popular Periodical Writing	Advanced writing course analyzing and imitating genres in popular periodical writing.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	476	Studies in Folklore	Surveys the history, genres, and dynamics of folklore, with emphasis on oral traditions. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	(L or HU or SB) & C	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	478	Studies in Modernism	Cultural, historical, and literary issues in American and European modernism.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	L or HU	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	479	Studies in Postmodernism	Literary, social, and cultural topics in postmodernism. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.	HU & G	Pre-requisites: ENG 200 and one other 200-level Literature course with C or better
ENG	480	Methods of Teaching English: Composition	Methods of instruction, organization, and presentation of appropriate content in the teaching of composition and other writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, 105, or 108 with C or better and one other ENG course with C or better
ENG	482	Methods of Teaching English: Language	Methods of instruction, organization, and presentation of appropriate content in language and usage for junior and senior high schools.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.	L	Pre-requisites: ENG 102, 105, or 108 with C or better and one other ENG course with C or better
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	487	Advanced Creative Writing Workshop in Poetry	Advanced writing of poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 310: Poetry or ENG 387 with C or better
ENG	488	Advanced Creative Writing Workshop in Fiction	Advanced writing of fiction.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 310: Fiction or ENG 388 with C or better
ENG	490	Literary Forms: Theory and Practice in Poetry	Types, history, analysis of traditional forms, and contemporary adaptations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 411: Poetry or ENG 487 with C or better
ENG	491	Literary Forms: Theory and Practice in Fiction	Types, history, analysis of traditional forms, and contemporary adaptations.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 411: Fiction or ENG 488 with C or better
ENG	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	Department of English	1-6		Pre-requisites: Must be an Honors student
ENG	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	Department of English	1-6	L	Pre-requisites: Must be an Honors student
ENG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	495	Literary Forms: Theory and Practice	Types, history, analysis of traditional forms and contemporary adaptations. Separate sections for poetry, fiction. Each genre may be taken once.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ENG 411 with C better
ENG	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-6		Pre-requisites: Must be an Honors student
ENG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-7		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-3		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	502	Contemporary Critical Theories	Studies the principles and techniques of contemporary theory and criticism.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	503	Comparative Literature, Theory, and Practice	Problems, methods, and principles of comparative analysis, illustrated by selected critical essays and literary/cultural texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	504	Cross-Cultural Studies	Theoretical and analytical issues for comparative research across distinct cultural regions and traditions. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	505	Writing Workshops	Intense poetry and fiction workshops for experienced writers, emphasizing individual style. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		

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ENG	506	Methods and Issues in Teaching Language	Developing the language skills of native and non-native speakers through a process approach and advanced writing workshops in junior and senior high schools.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	507	Methods and Issues in Teaching Composition	Up-to-date theory, practice, and implementation of secondary writing instruction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Students who have credit for ENG 480, may not enroll in ENG 507
ENG	517	History of the English Language	Surveys the development of the English language, with an emphasis on major linguistic transformations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	530	Old English	Study of Old English grammar, syntax, and phonology, with selected readings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	531	Old English Literature	Intensive literary, linguistic, and cultural study of Old English literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	532	Middle English Dialects	Study of the principal dialects of Middle English, with selected readings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	533	Studies in Medieval Literature	Selected topics in English literature from the 11th through the 15th centuries. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	534	Studies in Renaissance Literature	Selected topics and literary works studied in the contexts of English Renaissance culture. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	535	Studies in 18th- and 19th-Century British Literature	Selected topics, issues, figures, and genres in British literature and culture of the 18th and 19th centuries.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	536	Studies in American Literature before 1900	Selected topics, issues, figures, and genres in 17th-, 18th-, and 19th-century American literature, including the literature of conquest and contact.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	537	Studies in Modern and Contemporary British Literature	Selected topics, issues, figures, and genres in British literature and culture after 1900.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	538	Studies in Modern and Contemporary American Literature	Selected topics, issues, figures, and genres in American literature and culture after 1900.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	539	Studies in Modernist and Postmodernist Literature and Theory	Selected topics in Modernist and Postmodernist studies. May include literary and theoretical texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	540	Teaching Young Adult Literature	Issues and new approaches in teaching contemporary literature in high school.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	542	Studies in North American Ethnic Literatures	Selected works studied in their cultural contexts from authors representing ethnic experiences in the United States.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	543	Studies in Anglophone Literatures	Selected topics, texts, periods, literary trends in works by world authors writing in English.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	544	Studies in Colonial and Postcolonial Literature	Selected topics, periods, theories, and figures in works by authors representing colonial and postcolonial regions and/or experiences.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	545	Studies in Women's Literatures	Selected topics, texts, periods, and figures in works written by and/or about women, studied in their cultural contexts.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	546	Gender Studies	Selected topics, periods, and themes in the study of gender and sexuality, including attention to theoretical issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	550	Translation	Surveys theories and practices of translation into English. Considers target, audience and market.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	551	Rhetorical Traditions	Examines rhetorical traditions spanning ancient to contemporary rhetorics.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	552	Composition Studies	Selected topics in the history and theories of composition.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	553	Technologies of Writing	Critical study and cultural analysis of information technologies and their effects on various writing practices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	554	Rhetorics of Race, Class, and Gender	Study of interdependent relationships of race, class, and gender in rhetorical constructions of self and community.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	556	Theories of Literacy	Examines various theories of literacy, their embedded values and assumptions, and their influences on academic scholarship and pedagogy.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	560	Genre Studies	Critical analysis and study of works from a single genre or comparative analysis and study of multiple genres.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	561	Film Studies	Analysis and study of film genres, cinematic techniques, and problems of interpretation and representation.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	562	forms of Poetry	Types, history, criticism, and schools of theory of metrical form. Analyzes lyric, narrative, and dramatic poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	563	Forms of Fiction	Types, history, criticism, and schools of theory in the forms of fiction. Analyzes narrative and dramatic structure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		

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ENG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
ENG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	0-12		
ENG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	597	MA Capstone Seminar	The capstone seminar is required for MA students who choose the non-thesis option, which can consist of writing a research paper, designing curriculum, or developing a professional portfolio. Requires oral presentation of project.	N	RSC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
ENG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of English	1-12		
ENG	602	Advanced Studies in Theory and/or Criticism	Seminar courses on the principles, strategies, and applications of critical, cultural, and/or literary theory and/or criticism.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	603	Advanced Studies in Comparative Literature	Seminar courses on the problems, methods, and principles of comparative analysis.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	604	Interdisciplinary Cultural Studies	Seminar courses on work from literature, anthropology, and/or other disciplines, with an emphasis on cultural influences and functions.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	606	Advanced Studies in English Education	Current research, issues, and trends in English education.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	632	Advanced Studies in Medieval and Renaissance Literature and Culture	Seminar in works of the Medieval or Renaissance periods, studied in their cultural contexts.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	635	Advanced Studies in British Literature	Seminar courses on works produced in or about England, Scotland, and Wales, studied in their cultural contexts.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	636	Advanced Studies in American Literature	Seminar courses on works produced in or about the United States, studied in their cultural contexts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	639	Advanced Studies in Modernism and Postmodernism	Seminar courses on topics in Modernist and Postmodernist studies. May include literary and theoretical texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	642	Advanced Studies in Ethnic, Anglophone, or Post-Colonial Literatures	Seminar courses that consider the influence of cultural or geopolitical developments on the production and circulation of texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	645	Advanced Studies in Gender Issues	Seminar courses that consider the influence of gender on the production and circulation of texts.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	651	Advanced Studies in History and Theories of Rhetoric	Selected topics in the history and/or theory of rhetoric.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	652	Advanced Composition Studies	Selected topics on particular composition theories, practices, pedagogies, and figures.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	654	Advanced Studies in Rhetoric, Writing, Technology, and Culture	Advanced study of theoretical, methodological, and pedagogical issues concerning the interrelationships among rhetoric, culture, writing, and writing technologies.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	655	Disciplinary Discourses	Investigation of professional and disciplinary issues related to English studies.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	656	Studies in Cross-Cultural Discourse	Theoretical and methodological issues in the comparative study of discourses between cultures and communities of practice.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	661	Advanced Studies in Film	Seminar courses on topics, genres, and figures in film studies, including technical and theoretical issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	662	Poetic Genres	Creative writing courses in the long poem, the erotic image, death and transfiguration, reading and influence, and others.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	663	Fiction Genres	Creative writing courses in time and fiction, gothic fiction, myth in fiction, science fiction, and others.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	664	Mixed Genres	Creative writing courses in the prose poem, magical realism, the literature of obsession.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	665	Creative Methods	Creative writing courses in theory of the novel, poetics, story into film, and others.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	667	Issues in the Writing Professions	Focuses on career preparation, resources, the role of writing in the community, creative writing, and the Internet.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
ENG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		

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ENG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
ENG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-15		
ENG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
ENG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of English	1-15		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Prerequisite(s): TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) or WAC 107 with A, B, C or Y
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: Literature, Writing & Film (BA, minor, certificate, BIS), Pre Sec Educ- English, Sec Ed-English, English major or minor(Linguistics, Literature or Creative Writing) or BIS with English emphasis; ENG 102, ENG 105 or ENG 108 with C or better
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	213	Introduction to the Study of Language	Language as code; phonetics, phonology, morphology, and syntax; the lexicon; language acquisition; sociolinguistics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	219	Newspaper Production	Students work on campus newspaper to learn basics of news and column writing, digital photography, and layout.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	222	Survey of English Literature	Romantic, Victorian, and 20th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre/Co-requisite: ENG 200 (with C or better if completed)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	305	Classical and Biblical Backgrounds to Literature	Selected readings from the Bible and Greek and Latin literature in translation, emphasizing ideas, forms, and myths related to the development of English literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	310	Intermediate Creative Writing	Intermediate creative writing in genres other than poetry, fiction, or science fiction.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 210 with C or better
ENG	311	Persuasive Writing	Advanced writing course that focuses on persuasive writing for diverse audiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	317	Cross-Cultural Writing	Cultural differences and their impact on writing and/or their role in miscommunication and misinterpretation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	323	Rhetoric and Grammar	Practical course taught in the computer lab. Emphasizes rhetorical strategies and grammar for writers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	337	Major American Novels	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	353	African American Literature: Beginnings through the Harlem Renaissance	Focuses on the history of African American literature through the Harlem Renaissance, as exemplified in selected slave narratives, poems, and fiction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	354	African American Literature: Harlem Renaissance to the Present	Examines the literary productions of African Americans from the Harlem Renaissance (about 1920) to the present focusing on fiction, poetry, drama, and essays.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
ENG	359	American Indian Literature	Selected oral traditions of American Indians and their influences on contemporary Native American literary works.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	360	Western American Literature	Critical examination of ideas and traditions of the literature of the western United States, including the novel.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	365	History of Film	Development of motion pictures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3-4	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	369	Science Fiction Studies	Development of science fiction and fantasy literature. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	386	American Gothic	The development of modern American Gothic as a literary form from Poe to Oates. Emphasizes the short story.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	387	Intermediate Creative Writing Workshop in Poetry	Intermediate writing of poetry. Requires term paper or equivalent out-of-class written work.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 210: Poetry or ENG 287 with C or better. Students who have credit for ENG 310-Interm Fiction, may not enroll in ENG 387
ENG	388	Intermediate Creative Writing Workshop in Fiction	Intermediate writing of fiction. Requires term paper or equivalent out-of-class written work.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 210: Fiction or ENG 288 with C or better. Students who have credit for ENG 310-Intermed Poetry, may not enroll in ENG 388
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisite: must have completed ENG 102, or 105, or 108 with a grade of C or better; or be currently enrolled in ENG 102, 105, or 108
ENG	400	History of Literary Criticism	Major critics and critical traditions in the Western world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & H	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	401	Topics in Critical Theory	Major critical schools of recent decades--postcolonialist, psychoanalytic, deconstructionist, feminist, new historicist.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	410	Writing for Publication	Lectures and conferences concerning techniques of writing for publication.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	415	Studies in Medieval Literature and Culture	Medieval English and continental literature in translation, emphasizing cultural and intellectual backgrounds. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better

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ENG	418	Renaissance Literature	Prose, poetry, and drama of the Renaissance Era with an emphasis on cultural history.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	420	Multicultural Autobiographies	Examines the human experience via autobiographies and personal narratives. Multicultural, literary, and psychological perspectives on individual lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	421	Studies in Shakespeare	Close examination in selected dramatic and/or nondramatic works.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	423	Renaissance Drama	Topics, authors, and themes in the drama of the Tudor and early Stuart periods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	424	Milton	Selected prose and poetry, emphasizing Paradise Lost, Paradise Regained, and Samson Agonistes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	425	Studies in Romanticism	Romanticism in continental, British, and American literature and culture.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	431	Whitman and Dickinson	Evaluates the 19th-century American Literary Renaissance through the specialized examination of its poetry and authors in their historical context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	432	The American Renaissance	Novels, poetry, short fiction, and criticism of the major literary figures of the early to mid-nineteenth century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	433	Southern Writers	Analyzes Southern culture through the eyes of the region's novelists, short story writers, poets, filmmakers, photographers, and song writers.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	437	The American Novel, 1900 - 1960	Developments in theory and practice of major novelists.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	438	American Novel Since 1960	Major novelists of the period. Developments in theory and practice.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	440	Studies in American Literature and Culture	Various genres in their literary, political, theoretical, and historical contexts.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	450	The British Novel	Focuses on the British novel from the 18th century to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	454	Gender and Literature	Focuses on the representation of gender in literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	455	Contemporary Women Writers	Critical examination of literature by contemporary women writers. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better

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ENG	457	Studies in American Poetry	May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	460	Ethnic Women Writers	Concentrates on selected women writers of the U.S. who are Native American, African American, Hispanic, and Asian American.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	461	Studies in Women and Literature	Advanced topics in literature by or about women.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	462	Africana Literature	Focuses on the literature of the African Diaspora, including texts from the Caribbean, the Americas, and Africa. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	463	African American Literature	Thematic and cultural study of African American literature.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	472	Rhetorical Studies	Developments in theory and practice of major rhetorical inquiries.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisites: Completed ENG 102, 105, or 108 with C or better. Must have 56 or more earned hours
ENG	476	Studies in Folklore	Surveys the history, genres, and dynamics of folklore, with emphasis on oral traditions. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU or SB) & C	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	477	World Literature	Readings in world literature, mostly outside the United States and England.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	478	Studies in Modernism	Cultural, historical, and literary issues in American and European modernism.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	479	Studies in Postmodernism	Literary, social, and cultural topics in postmodernism. May be repeated for credit when topics vary.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	492	Honors Directed Study		N	RSC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		Pre-requisites: Must be an Honors student
ENG	493	Honors Thesis		N	THE	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
ENG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		

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ENG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ENG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ENG	101	First-Year Composition	Discovers, organizes, and develops ideas in relation to the writer's purpose, subject, and audience. Emphasizes modes of written discourse and effective use of rhetorical principles. Foreign students, see ENG 107.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Prerequisite(s): ACT English score of 19 or higher; SAT Verbal score of 470 or higher; Accuplacer score of 5-7 (unless taken prior to May 12, 2009, then score of 8-10) or have completed WAC 101 with a grade of A, B, C or Y
ENG	102	First-Year Composition	Critical reading and writing; emphasizes strategies of academic discourse. Research paper required.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	105	Advanced First-Year Composition	Concentrated composition course for students with superior writing skills; intensive reading; research papers; logical and rhetorical effectiveness. Credit is allowed for only ENG 105 or First-Year Composition.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 26 or higher; SAT Verbal score of 620 or higher or Accuplacer score of 11 or above; Students who have taken ENG 101, may not enroll in ENG 105
ENG	107	English for Foreign Students	For students from non-English-speaking countries who have studied English in their native countries, but who require practice in the idioms of English. Intensive reading, writing, and discussion. Satisfies the graduation requirement of ENG 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Prerequisite(s): TOEFL score of 560 or higher, ACT English score of 19 or higher, SAT Verbal score of 470 or higher, Accuplacer minimum score of 5 (exam taken prior to May 12, 2009 requires minimum score of 8) or WAC 107 with A, B, C or Y
ENG	108	English for Foreign Students	For foreign students; critical reading and writing; strategies of academic discourse. Research paper required. Satisfies graduation requirement of ENG 102.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed ENG 101 or 107 with a grade of C or greater or be currently enrolled
ENG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ENG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	200	Critical Reading and Writing About Literature	Introduces the terminology, methods, and objectives of the study of literature, with practice in interpretation and evaluation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: Literature, Writing & Film (BA, minor, certificate, BIS), Pre Sec Educ- English, Sec Ed-English, English major or minor(Linguistics, Literature or Creative Writing) or BIS with English emphasis; ENG 102, ENG 105 or ENG 108 with C or better
ENG	201	World Literature	Classical and medieval periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	202	World Literature	Renaissance and modern periods. Selections from the great literature of the world in translation and lectures on the cultural background.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	204	Introduction to Contemporary Literature	Poetry, fiction, drama, and possibly other genres.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	210	Introduction to Creative Writing	Beginning creative writing in genres other than poetry and fiction.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	212	English Prose Style	Analysis and practice of writing in various classical and modern prose styles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	214	English Grammar and Usage	Fundamentals of English grammar (word and phrase structure), English usage (punctuation, grammatical correctness), and grammatical and usage theory.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	215	Strategies of Academic Writing	Advanced course in techniques of analyzing and writing academic expository prose. Writing is research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	216	Persuasive Writing on Public Issues	Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers are research based.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	217	Writing Reflective Essays	Critical examination of the influences discourse has on formation of identity; narrative analyses of self and culture.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	218	Writing About Literature	Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	221	Survey of English Literature	Medieval, Renaissance, and 18th-century literature. Emphasizes major writers and their works in their literary and historical contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	230	Introduction to Film Studies	Introduces the style and cultural significance of feature films.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	241	Literatures of the United States to 1860	Surveys literary movements and genres from colonization to the Civil War.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	242	Literatures of the United States, 1860 to Present	Surveys literary movements and genres from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Pre/Co-requisite: ENG 200 (with C or better if completed)
ENG	243	Introduction to Writing Family History	Interdisciplinary writing course on theories, methodologies, and issues in writing family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	244	Introduction to Researching Family History	Introduces research methods in family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	245	Popular Culture Issues	Selected topics in various forms of popular culture related to written texts.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	287	Beginning Creative Writing Workshop in Poetry	Beginning writing of poetry.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	288	Beginning Creative Writing Workshop in Fiction	Beginning writing of fiction.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	301	Writing for the Professions	Advanced practice in writing and editing expository prose. Primarily for preprofessional majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	303	Classical Backgrounds of English Literature	Readings of Greek and Latin literature in translation as they relate to literature in English.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	310	Intermediate Creative Writing	Intermediate creative writing in genres other than poetry, fiction, or science fiction.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 210 with C or better
ENG	311	Persuasive Writing	Advanced writing course that focuses on persuasive writing for diverse audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	317	Cross-Cultural Writing	Cultural differences and their impact on writing and/or their role in miscommunication and misinterpretation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	320	Medievalism in Modern Culture	Studies the representation of Medieval narratives, characters, themes, myths, and images in modern culture.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	321	Shakespeare	Readings in Shakespeare's major comedies, tragedies, histories, romances and/or poems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	328	The Novel to Jane Austen	From origins of prose fiction through the 18th century.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	329	19th-Century British Fiction	Includes such authors as Austen, Dickens, Eliot, and Conrad.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	333	American Ethnic Literature	Examines America's multiethnic identity through works of literature that depict American ethnic, gender, and class sensibilities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	334	The American Southwest in Literature and Film.	Evaluates literary texts and films addressing the diverse literatures and cultures of the American Southwest.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
ENG	335	American Poetry	Themes and developments in American poetry.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	337	Major American Novels	Major American novels studied in their ethnically diverse literary, historical, and cultural contexts.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	344	Intermediate Family History Research	How to locate records, analyze and interpret evidence, and write a family history narrative.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	352	Short Story	Development of the short story as a literary form; analysis of its technique from the work of representative authors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	354	African American Literature: Harlem Renaissance to the Present	Examines the literary productions of African Americans from the Harlem Renaissance (about 1920) to the present focusing on fiction, poetry, drama, and essays.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Prerequisite(s): ENG 102, 105, or 108 with C or better; Credit is allowed for only AFH 354 or ENG 354
ENG	359	American Indian Literature	Selected oral traditions of American Indians and their influences on contemporary Native American literary works.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	364	Women and Literature	Approaches to issues of gender and representation in literature by and about women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	366	Literature on Film	Studies literary texts and their adaptation to film.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	367	Environmental Issues in Literature and Film	Evaluates literary texts and films that address interconnected cultural, historical, and environmental issues.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	368	Art of the Personal Essay	Writing personal essays drawing on both research and personal experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	373	Publishing in Literary Magazines	Analyzes the history, publishing preferences, editorial staff, and submission guidelines of literary magazines.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	375	Titans of Business	Explores leading CEOs and corporations from a humanities perspective.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	376	Writing a Personal History	Interdisciplinary writing course emphasizing theories, methodologies, and issues of composing personal histories.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	377	Editing Family History for Public Audiences	Fundamentals of editing family writing. Role of editors in analyzing, revising, and polishing manuscripts for publication.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	378	Environmental Creative Nonfiction	Lectures, discussion, and criticism concerning the literary history of nature writing and techniques of writing environmental creative nonfiction for publication.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	379	Travel Writing	Studies the genesis of travel writing, what theories inform travel writing, and the various genres of travel writing today.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	382	Digital Project Management for Humanities and Arts	Introduces Web design for the humanities; explores the use of the ADDIE process to create digital projects.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	383	Digital Media in the Humanities and Arts	Introduction to the digital arts is an introduction to the emerging "new media" with emphasis on still imaging, audio, video, multimedia and the World Wide Web.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	387	Intermediate Creative Writing Workshop in Poetry	Intermediate writing of poetry. Requires term paper or equivalent out-of-class written work.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 210: Poetry or ENG 287 with C or better. Students who have credit for ENG 310-Interm Fiction, may not enroll in ENG 387
ENG	388	Intermediate Creative Writing Workshop in Fiction	Intermediate writing of fiction. Requires term paper or equivalent out-of-class written work.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 210: Fiction or ENG 288 with C or better. Students who have credit for ENG 310-Intermed Poetry, may not enroll in ENG 388
ENG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
ENG	411	Advanced Creative Writing	Advanced creative writing in genres other than poetry, fiction, creative nonfiction, or screenwriting.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 310 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ENG	412	Creative Nonfiction	Lectures, discussion, and criticism concerning techniques of writing creative nonfiction for publication.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 310 or ENG 388 or ENG 411 with C or better
ENG	464	Great Directors	Studies the work of one or more influential directors.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	466	Studies in International Film	Studies non-American narrative film.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	467	American Film Musicals	A cultural history of American film musicals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	468	Environmental Literary Criticism	Evaluates the disparate critical practices that constitute what is the emerging literary project known as "ecocriticism" or "environmental literary criticism."	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	471	Literature for Young Adults	Prose and poetry that meet the interests and capabilities of junior high and high school students. Stresses recent literature. A passing grade of at least "C" (2.00) required before students are permitted to student teach in English.	N	DIS	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Pre-requisites: ENG 102, 105, or 108 with C or better and one other ENG course with C or better
ENG	472	Rhetorical Studies	Developments in theory and practice of major rhetorical inquiries.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Completed ENG 102, 105, or 108 with C or better. Must have 56 or more earned hours
ENG	481	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 200 and one other 200-level Literature course with C or better; Students who have credit for ENG 581, may not enroll in ENG 481
ENG	482	Methods of Teaching English: Language	Methods of instruction, organization, and presentation of appropriate content in language and usage for junior and senior high schools.	N	DIS	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: ENG 102, 105, or 108 with C or better and one other ENG course with C or better
ENG	483	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 200 with C or better and one 200-level literature course with C or better OR New College or Letters & Sciences undergraduate student and minimum junior academic level and one 200-level (or higher) English course with C or better
ENG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
ENG	581	Methods of Teaching Secondary Writing	Emphasizes methods of planning, teaching, and assessing appropriate content in the instruction of composition and related skills in secondary classrooms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for ENG 481, may not enroll in ENG 581
ENG	583	Methods of Teaching Secondary Literature and Language	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary literature, literacy, and language usage.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
EPA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
EPA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EPA	795	Continuing Registration		N	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
EPA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		
EPD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EPD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
EPD	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		Pre-requisite: EDP 710, EDP 712 or EDP 714 with C or better
EPD	710	Current Research in Design	Review and critical evaluation of contemporary literature and method in architecture, building science, interior design, industrial design, and landscape architecture. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		Pre-requisite: PhD in Environmental Design & Planning student
EPD	712	Current Research in Planning	Review and critical evaluation of contemporary literature and method in environmental planning, landscape ecology, urban design, and urban and regional planning. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		Pre-requisite: PhD in Environmental Design & Planning student
EPD	714	Current Research in History, Theory, and Criticism	Review and critical evaluation of contemporary literature and method in the theory and history of architecture, design, and planning. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	3.		Pre-requisite: PhD in Environmental Design & Planning student
EPD	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-15		
EPD	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
EPD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1.		
EPD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-15		
ESS	501	Environmental Social Science Theory and Practice I	First part of a two-semester core course investigating key conceptual domains of environmental social science from interdisciplinary and comparative perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ESS	502	Environmental Social Science Theory and Practice II	Second part of a two-semester core course investigating key conceptual domains of environmental social science from interdisciplinary and comparative perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
ESS	510	Urban Environments	Investigates major issues and themes on the urban environment, from urban sprawl to environmental justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	513	Institutions	Studies formal and informal institutional arrangements for the governance of natural resources using case studies, experiments, and formal models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	514	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
ESS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ESS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
ESS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
ESS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ESS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
ESS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		
ESS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		
EST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	200	Project Lab	Provides theoretical and practical overview of principles of measuring instruments and the main objective is to build good lab disciplines.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
EST	210	Circuit Analysis I	Parallel/Series circuits, ohm's law, network theorems, capacitors/inductors and transient analysis. Overview of electronic devices, BJTs, FETs, op-amps.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EST	310	Circuit Analysis II	Electronic device analysis and introduction to design. Power supplies, diode circuits, FETs, BJTs, op-amps. Emphasizes frequency response.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; EET 208 with D or better OR Technology and Innovation or Fulton Engineering graduate student
EST	345	Planning and Delivering Engineering Projects	Project-based, hands-on course teaches team building, planning, soft skills, tracking progress, and powerful methods that deliver successful, on-time projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
EST	370	Sensors	Overview of sensor technology, including mechanical, magnetic, radiation, thermal, chemical, and biological applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Must have received a D or better in EST 200 and EST 210
EST	372	Wireless Communication Systems	Components and signal processing for modern wireless communication systems, including major applications, problems, and new technologies.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: EST 310 with a grade of D or better
EST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	482	Industrial Practice: Internship/Co-Op	Specially assigned or approved activities in electronic industries or institutions. Requires report.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
EST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
EST	490	Electronics Project	Individual or small group projects in applied electronics; emphasizes lab practice or hardware solutions to practical problems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
EST	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
EST	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
EST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; OR Technology and Innovation or Fulton Engineering graduate student
EST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
EST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Must have an University Cum GPA of 3.00 or greater; Must be a Tech Science or Engineering senior OR a Graduate, NonDegree or Post Bacc student
EST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
EST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
EST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Graduate/NonDegree/Post Bacc student OR University Cumulative GPA is greater than or equal to 3.00 AND must be Tech Sci or Engr student AND Academic Level equal to Senior
ETH	100	Introduction to Ethnic Studies	Undertakes an introductory comparative analysis of ethnic groups to understand cultural diversity within the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	
ETH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	300	Principles of Ethnic Studies	Familiarizes students with a range of analytical and theoretical frameworks in the field of ethnic studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	C	
ETH	310	Research Methods in Ethnic, Racial, and First Nations Populations	Examines analytical tools and methodological approaches (ethnography, oral histories, digital-storytelling, information literacy) to study ethnic, racial, and first nations populations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
ETH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
ETH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
ETH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
ETM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	301	Environmental Management	Focuses on knowledge and skills necessary to manage environmental programs. Perspectives include regulatory, individual, corporate, and consulting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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ETM	302	Water and Wastewater Treatment Technology	Explores the development of treatment technologies. Addresses regulatory standards. Emphasizes theory and practice of system design, lab analysis standards and procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	303	Environmental Regulations	Explores environmental laws, regulations, and directives. Addresses air, land, and water.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	360	Introduction to Emergency Management	Emergency management theories. Comprehensive emergency management. Mitigation, preparedness, response, and recovery. Post-disasters and policy formation. Current FEMA all-hazards approach.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	362	Managing Natural and Technological Disasters	Federal, state, and local responses to emergencies. Management of mass casualties, evacuation, sheltering, and terrorism; declaration of emergency procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	363	Computer Applications in Emergency Management	Explores specific computer programs that are currently in use for contingency planning, tracking chemical inventories, and response resources. Cross-listed as FSM 363. Credit is allowed for only ETM 363 or FSM 363.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	364	Toxicology and Biohazards in Emergency Management	Introduces poisons. Dose response routes of exposure and toxicokinetics. Diseases associated with natural disasters. Clinical presentation of treatments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	401	Hazardous Waste Management	Definition of hazardous waste, RCRA and CERCLA regulations, hazardous waste classification system. Overview of hazardous waste management.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	402	Unit Treatment Technologies	Addresses various treatment technologies for contaminated air, water, and soil. Emphasizes design based upon medium, type of contamination, and concentration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	406	Environmental Chemistry	Examines reactions, transport, and fates of hazardous chemicals in water, soil, air, and living organisms.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	407	Occupational Hygiene	Overview of occupational health hazards, including recognition, evaluation, and control. Includes regulatory status and health standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	424-E	Comprehensive Emergency Management	Addresses theory and management techniques for emergency preparedness, including mitigation, preparedness, response, and recovery.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	424-M	Comprehensive Emergency Management	Addresses theory and management techniques for emergency preparedness, including mitigation, preparedness, response, and recovery.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	426-E	Environmental Issues	Explores the science and policy implications of contemporary problems that threaten the environment.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	426-M	Environmental Issues	Explores the science and policy implications of contemporary problems that threaten the environment.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	428	International Environmental Management	Emphasizes technological and economic pressures experienced by developing countries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	
ETM	460-E	National Incident Management System (NIMS)	Covers concepts, terminology, players, compliance requirements, including doctrine of National Incident Management System per HSPD-5. Discussion of National Response Plan.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	460-M	National Incident Management System (NIMS)	Covers concepts, terminology, players, compliance requirements, including doctrine of National Incident Management System per HSPD-5. Discussion of National Response Plan.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	461	Homeland Security	In-depth analysis of policies, procedures, and organizational structure for effective homeland security program. Covers all hazard/all risk philosophy. Credit is allowed for only ETM 461 or 561. Prerequisite: junior or senior standing or instructor approval.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	468	Simulation and Exercising	Requirements, planning, conduct, and critique of exercises related to emergency planning. Emphasizes realism using moulage and props.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	469	Terrorism Defense	Explores the background and evolution of terrorism. Presents specific tactics for preparation for and response to acts of terrorism.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	501	Principles of Hazardous Materials and Waste Management	Foundation for courses in curriculum. Topics include definitions of toxic and hazardous substances and wastes, RCRA classification, and OSHA criteria.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	502	Regulatory Framework for Toxic and Hazardous Substances	Examines federal, state, and local regulations for hazardous materials and wastes. Includes history and trends in regulatory development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	503	Principles of Toxicology	Interaction of chemicals with life and environment. Mechanisms of toxic action, dose-response relationships, toxicity testing models, predictive toxicology, and epidemiology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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ETM	504	Technology for Storage, Treatment, and Disposal of Hazardous Materials	Current and state-of-the-art technologies and future trends for storage, treatment, and disposal of hazardous materials and waste.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	505	Quantitative Analysis and Practical Laboratory Techniques	EPA methodologies for sampling and analysis of soils and water. Includes quality assurance and regulatory requirements. Lab is arranged off site.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	506	Chemistry of Hazardous Materials	Chemistry and toxicology of hazardous chemicals. Topics include proper handling, storage, transportation, and disposal.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	507	Industrial Hygiene	Emphasizes chemical hazards in industrial settings. Topics include recognizing and measuring hazards, control techniques, and regulatory standards.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	520	Sustainability and Sustainable Development	Explores broad field of environmental sustainability with U.S. and international coverage of green living practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	522	Air Pollution and Toxic Chemicals	Examines issues in the measurement analysis and control of toxic chemicals in air pollution.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	523	Soils and Groundwater Contamination	Theoretical and practical hydrogeology as it applies to cleaning up contamination. Investigative techniques, monitoring, risk assumptions, and assessment methodology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	524	Integrated Emergency Management	Theory and practice of comprehensive emergency management. Explores scope and function of Department of Homeland Security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	525	Risk Assessment for Hazardous Materials	Applies the risk assessment process in situations ranging from hazardous facilities regulation to toxic substances in the environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	526	Current Environmental Technology Issues	In-depth study of current issues in environmental technology facing both the private and public sectors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	527	Environmental/Resources Regulations Concepts	Develops environmental regulations from common law to statutory requirements. Emphasizes Superfund, hazardous materials, toxics, and liability contracts.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	528	International Environmental Management	Studies environmental issues and laws outside the U.S., impact of free trade, and multinational corporations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	540	International Environmental Law and Policy	Studies international environmental agreements, enforcement mechanisms, and the role of NGOs and international organizations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	560	Terrorism and Weapons of Mass Destruction	Historical evolution of terrorism and weapons of mass destruction. Analyzes current theories and mitigation, preparedness, and response tactics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	561	Homeland Security	Presents skills necessary to develop policies, strategies, programs, and organizational structure of an all hazards/all risk homeland security program. Credit is allowed for only ETM 561 or 461.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	567	Information Technology in Emergency Management	Provides theory and application of computer-based programs in emergency management and the use of various emergency modeling programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	571	The Foundations of Homeland Defense and Security	The enemy, policies, key players, and legal issues surrounding homeland defense and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	572	Multidisciplinary Approaches to Homeland Defense and Security: Collaborating to Integrate	Multidisciplinary approach to prevention, mitigation, preparedness, response, and recovery from incidents of national significance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	573	Strategic Planning and Organizational Imperatives in Homeland Defense and Security	Efforts to integrate and mobilize government and private sector resources for homeland defense and security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	574	Special Topics in Homeland Defense and Security	Discusses contemporary challenges of asymmetric warfare, terrorism, and the virtual global battlespace, as well as emerging threats to homeland security.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
ETM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ETM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
ETM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		
ETM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
ETM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		

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EVO	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
EVO	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
EVO	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	600	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
EVO	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
EVO	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
EVO	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
EVO	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
EVO	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
EXW	100	Introduction to Health and Wellness	Current concepts in health, exercise, and wellness. Emphasizes personal health, theories, attitudes, beliefs, and behaviors.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	
EXW	105	Physical Activity Instruction: Beginning	Beginning instruction in a variety of physical activities such as aerobics, aquatics, racquet sports, physical conditioning, and golf. Y grade only. May be repeated for credit. 2 hours per week. fee	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
EXW	205	Physical Activity Instruction: Intermediate	Intermediate-level instruction in a variety of physical activities. Continuation of EXW 105. Y grade only. May be repeated for credit. 2 hours per week. fee	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Must have completed EXW 105 with a C or greater
EXW	212	Instructional Competency Laboratory	Methods of instructing and leading fitness activities including aerobic, resistance, and flexibility activities.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Prerequisite(s): Exercise and Wellness or Physical Education major
EXW	215	Physical Activity and Healthy Lifestyles	Applies principles of physical activity to personal fitness testing and program planning for people of all ages. Telecampus course. Not open to Exercise and Wellness majors or to students with credit in EXW 325.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Non-EXW students; Credit is allowed for only EXW 215 or EXW 325
EXW	300	Foundations of Exercise and Wellness	Principles and foundations of fields of study related to health promotion, physical activity, and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisites: EXW 100 or KIN 100 with a D or better, or co-enrolled in EXW 100 or KIN 100
EXW	301	Concepts of Fitness and Wellness	Guidelines for achieving health benefits of physical activity and other healthy lifestyles. Telecampus course. Not open to Exercise and Wellness majors or to students with credit in EXW 325.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Non-EXW students; Students may not enroll for EXW 301 who have received a D or better in EXW 325
EXW	302	Fundamentals of Wellness	Overview of fundamental health, exercise and wellness concepts. Emphasizes personal wellness assessment and application.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	
EXW	305	Physical Activity Instruction: Advanced	Advanced-level instruction in a variety of physical activities. Continuation of EXW 105. May be repeated for credit. Y grade only. 2 hours per week. fee	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	310	Computer Skills and Technology for Exercise and Wellness	Applies computer technology to principles of social marketing, tailored communication, e-health consumerism, and statistical analysis.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	CS	Pre-requisites: Must be a Exercise Wellness student; must have completed MAT114, MAT117, MAT119, MAT142 or MAT170 with a C or greater
EXW	311	Special Populations in Exercise and Wellness	Introduces the challenged population and surveys the agencies that work with special populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	315	Physiological Foundations of Movement	Studies human movement with emphasis on physiological function of the body in response to physical activity and fitness training. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: BIO 201 and BIO 202 with C or better
EXW	320	Program Development and Leadership	Principles of planning, organizing, promoting, and leading fitness and wellness programs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	322	Spa Management I	History of the spa industry. Overview of different types of spas, spa programs and services, facilities and equipment, operational procedures and systems, the wellness component of spas, and computer applications in spa operations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
EXW	325	Fitness for Life	Physical fitness and benefits of exercise with emphasis on self-evaluation and personalized program planning for a lifetime. Not open to students with credit in EXW 215 or 301.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Students may not sign up for EXW 325 who have received a D or better in EXW 215 or EXW 301
EXW	330	Kinesiological Foundations of Movement	Study and consideration of human movement with emphasis on kinesiology principles and their application to movement and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: BIO 201 with C or better

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EXW	335	Physical Activity and Fitness Concepts	Topics are designed for the physical activity and health education professional and focus on application of basic exercise physiology and nutritional concepts in the design and implementation of exercise and physical activity programs to increase physical function and improve health risk factors.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: BIO 201 and 202 with C or better
EXW	342	Health Behavior Change	Examines major theories of health behavioral change. Develops intervention strategies and techniques employed to facilitate health behavioral change.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed PGS 101 with a C or greater
EXW	346	Health Promotion and Program Evaluation	Introduces and applies theory-based concepts and methods of health promotion and program evaluation.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: EXW 300 with C or better; EXW 342 with C or better
EXW	350	Substance Abuse and Addictive Behavior	Studies addictive substances, their pharmacology and effects. Psychosocial risk factors for, and consequences of, substance abuse.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	380	Body Image and Wellness	Explores body image in American culture from physical, psychological, historical, and societal perspectives.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed NTR 241 and PGS 101 with a C or greater
EXW	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	400	Stress Management for Wellness	Examines the stress response and management from a behavioral perspective as it pertains to individuals or groups.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed PGS 101 with a C or greater
EXW	420	Exercise Testing	Theoretical basis and practical application of pre-exercise screening, exercise testing, estimates of energy expenditure, and interpretation of results. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Must have completed EXW 315 with a C or greater
EXW	425	Exercise Prescription	Theoretical basis for and application of general principles of exercise prescription to various ages, fitness levels, and health states.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: EXW 315 with C or better; EXW 330 with C or better; Pre/Co-requisites: EXW 420 with C or better if completed
EXW	442	Physical Activity in Health and Disease	Examines the role of physical activity and fitness in the development of morbidity and mortality throughout the human life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: EXW 300 with a D or better
EXW	444	Epidemiology	Introduces epidemiological concepts and prepares the student to read, comprehend, and report epidemiological research.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 300 and EXW 310 with a C or greater
EXW	450	Cultural and Social Issues in Exercise and Wellness	Examines contemporary sociocultural issues and social determinants of health and physical activity. Focuses on health disparities, obesity, and social stressors.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	(L or SB) & C	Pre-requisites: PGS 101 and EXW 300 with C or better
EXW	460	Resistance Training Application and Theory	Fosters critical thinking as it applies to resistance training theory.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 315 with a C or greater
EXW	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	FLD	Y	GNA	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Exercise and Wellness concentration students with EXW 400, 420, and 425 with C or better or EXW Health Promotion concentration with EXW 346, and 444 with C or better
EXW	492	Honors Directed Study		N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
EXW	493	Honors Thesis		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
EXW	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		
EXW	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
EXW	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	501	Research Statistics	Statistical procedures; sampling techniques, hypothesis testing, and experimental designs as they relate to research publications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	505	Applied Exercise and Wellness Laboratory Techniques	Investigative techniques used in the applied exercise testing/prescription lab. Emphasizes cardiorespiratory assessment, energy balance, body composition, and electrocardiography. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	534	Sports and Fitness Conditioning	Bases of sports and fitness conditioning, including aerobic and anaerobic power, strength, flexibility, and analysis of conditioning components for sports and fitness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	536	Physiological Aspects of Physical Activity and Chronic Disease	Role of physiological mechanisms associated with acute and long-term physical activity and its influence on chronic disease and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	538	Obesity, Exercise and Health	Critically examines scientific and medical evidence concerning obesity, exercise, and health across the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	540	Psychosocial Issues in Exercise and Wellness: Stress, Coping, and Resilience	Critically explores the impact of psychological and social factors on human wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

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EXW	542	Health Promotion	Theory and research concerning fitness and wellness programs in nutrition, physical activity, smoking cessation, and stress management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	544	Fitness/Wellness Management	Development of the fitness/wellness industry. Planning, organizing, promoting, and managing fitness/wellness programs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
EXW	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
EXW	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	635	Physical Activity and Aging	Examines and discusses the theoretical and applied health-related research on physical activity and aging.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	640	Analysis of Variance for Exercise and Wellness	Analyzes variance methods with an emphasis on research measures of human performance.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	641	Qualitative Research Methods	Introductory overview of qualitative research methods frequently used in education and health. Emphasizes analysis of research and practical application.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	642	Exercise Epidemiology	Physical activity, exercise, and physical fitness and the development of chronic disease.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed EXW 500 and EXW 501 with a C or greater
EXW	643	Correlation/Regression/Multivariate Statistics	Graduate-level statistics course for PhD/master's students who will be doing research in the area of exercise and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	645	Biostatistics in Physical Activity, Nutrition, and Wellness	Introduces biostatistical methods in physical activity, nutrition, and health promotion.	N	LEL	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	701	Research Methods for Community-Based Interventions	Develops skills to design and conduct community-based research interventions, identify essential elements of program fidelity, analyze quasi-experimental research.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
EXW	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
EXW	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
EXW	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
FAS	101	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Freshman Standing; Maximum 25 hours

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FAS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	301	Introduction to Parenting	Integrated approach to understanding parenting and parent-child interactions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	332	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, and responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	361	Research Methods	Methods of social science research, including the fundamental assumptions underlying research, critique, research design, data collection, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	Pre-requisites: SOC 101 (or SOC 301 or CDE 232) and SOC 390 (or equivalent) completed with D or better or currently enrolled. Credit is allowed for only FAS 361 or SOC 391
FAS	370	Family Ethnic and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
FAS	390	Supervised Research Experience	Practical, firsthand experience within current faculty research projects in family studies or child development. Y grade only; may be repeated for total of 6 hours.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
FAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	431	Parent-Adolescent Relationships	Dynamics of the relationships between parents and adolescents. Developmental characteristics of adolescence and the corresponding adult stage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
FAS	435	Advanced Marriage and Family Relationships	Recent research, issues, and trends relating to marriage and family interaction. Influence of family composition, physical environment, family patterns, and values on family dynamics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
FAS	440	Fundamentals of Marriage and Family Therapy	Introduces the fundamental orientations of marriage and family therapy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisite: Must be an Honors student
FAS	493	Honors Thesis		N	RSC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
FAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	497	Honors Colloquium		N	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
FAS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		
FAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
FAS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	503	Academic Professional Development	Becoming and working as a academic, including how to write a vita, choose a thesis topic, or find dissertation data.	N	DIS	N	GNA	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
FAS	531	Family Theory Development	Historical and current approaches to theory development, evaluation, and application in family studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	539	Research Issues in Family Interaction	Critical review of current and past research in the area of family dynamics. Emphasizes interactional processes within the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
FAS	570	Introduction to Marriage and Family Therapy	Introduces major marriage and family therapy orientations. Reviews history, theory, application, and outcome research for each orientation.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	571	Assessment in Marriage and Family Therapy	Assessment and outcome evaluation of couples and families involved in marital and family therapy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	572	Advanced Techniques in Marriage and Family Therapy	In-depth review of assumptions and advanced techniques associated with contemporary marriage and family therapy approaches.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	573	Dysfunctional Families	Critical review of current theory and empirical evidence connecting marital and family interaction patterns with aberrant behavior.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FAS	574	Family Theory for Marriage and Family Therapy	Examines the theoretical orientations within the family therapy field, including the evolution, premises, and assumptions of each.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	575	Applied Issues in Couples - Therapy	Examines issues unique to therapeutic work with couples, including lifespan transition, multicultural issues, divorce, parenting, and remarriage. Seminar. Enroll requirements: Pre-requisites: Admission into MAS-MFT program.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	576	Applied Issues in Human Development for MFT: Psychopathology	Recognition and diagnosis of maladaptive behavior according to DSM criteria across human development.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	577	Applied Issues in Children and Adolescents in Marriage and Family Therapy	Examines developmental factors that lead to disorders in children and adolescents, with an emphasis on a systemic framework.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	578	Applied Issues in Sexuality for Marriage and Family Therapy	Examines the major methods used to assess and treat sexual issues and the treatment of sexual disorders.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	579	Applied Research in Marriage and Family Therapy	Critical examination of research concepts, quantitative and qualitative research designs, and applicability in clinical settings.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	581	Professional Issues and Ethics	Examines legal and ethical concerns of marriage and family therapists, emphasizing licensing standards and the Code of Ethics.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisite: MAS-MFT student
FAS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
FAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
FAS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
FAS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
FAS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FAS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		
FAS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		
FAS	301	Introduction to Parenting	Integrated approach to understanding parenting and parent-child interactions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	331	Marriage and Family Relationships	Issues, challenges, and opportunities relating to present-day marriage and family living. Factors influencing interrelations within the family.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	332	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, and responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
FAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	403	Aging, Lifespan Development, and the Family	Analyzes aging issues and their effects on family members of older adults. Integrates social policy, health, and relational factors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
FAS	421	Caregiving for Older Adults	In-depth analysis of the theory and practice of caregiving for the senior population. Integrates multiple perspectives (family caregivers, professionals, paraprofessionals, government, and industry policies).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
FAS	436	Sexuality in Mid-Life and Beyond	Analyzes physical changes, myths and stereotypes, gender issues, and relationship issues pertaining to sexuality in the middle and older adult years.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
FAS	445	Social Policy and Aging	Critical analysis and evaluation of the historical, socio-political, and economic issues that are specific to older Americans. Includes federal, state, and local policy issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
FAS	472	Women, Aging, and the Life Course	Critical evaluation of issues affecting women as they age, including media messages, cultural differences, economic issues, and relationships.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
FAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
FAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
FAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
FAS	330	Personal Growth in Human Relationships	Personal development and behavior as related to competency in interpersonal relationships with the family. Processes of family interaction.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	332	Human Sexuality	Relationship of sexuality to family life and to major societal issues. Emphasizes developing healthy, positive, and responsive ways of integrating sexual and other aspects of human living.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
FAS	370	Family Ethnic and Cultural Diversity	Integrative approach to understanding historical and current issues related to the structure and internal dynamics of diverse American families.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	
FIN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-3		
FIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		
FIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		
FIN	300	Fundamentals of Finance	Theory and problems in financial management of business enterprises.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA; ACC 241 or ACC 271, and ECN 221 and ECN 212 with a grade of C or better.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FIN	301	Fundamentals of Finance	Introduces the basic concepts, principles, and tools of financial management.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status; ACC 240, ECN 112 and QBA 221 with C or better
FIN	302	Managerial Finance	Theories and techniques used for business decisions in working capital management, capital budgeting, financial control, and long-term financing.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W. P. Carey Finance major; ACC 240/241, ECN 221 and ECN 212 with a grade of C or better.
FIN	303	Honors Finance	Covers basic principles of finance, practical tools for financial decision making, and evaluation methods employed by the firm.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Must be an Honors student; Must have ACC 241 or 271 , ECN 211 or 213, ECN 212 or 214, ECN 221 and MAT 211 or 271 with a grade of C or better.
FIN	331	Financial Markets and Institutions	Analyzes financial markets and intermediaries. Theory of financial intermediation, interest rate theory, money and capital market instruments, and government regulation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 241 or ACC 271, and ECN 221 with a grade of C or better.
FIN	361	Advanced Managerial Finance	Builds on FIN 302. Advanced material on capital budgeting, cost of capital, CAPM, asset valuation, capital structure, and financial policy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; must have completed FIN 302 or FIN 300 with a grade of C or greater or be currently enrolled.
FIN	380	Personal Financial Management	Dynamic analysis of personal financial planning, including time value of money, stock and bond investment, and retirement and estate planning.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Non-Finance student; Must have minimum 2.0 ASU cumulative GPA and minimum 56 earned hours, or be a non-degree seeking student
FIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: Non-Finance students; Minimum cumulative GPA of 2.00; Minimum 56 hours OR Non-degree seeking student
FIN	410	Investments	Strategies and mechanics of investing in stocks, bonds, and derivatives. Topics include investment selection, portfolio management, financial markets, and institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Management student with professional or conditional status OR Finance Mgt student; FIN 300 or 301 with C or better
FIN	411	International Finance	Explores the environmental challenges facing financial managers in global financial markets and develops tools and techniques to meet such challenges.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status OR Finance Mgt OR Int' Studies student; FIN 300 or 301 with C or better; GLB 301 with C or better
FIN	412	Financial Management	In-depth extension of core finance course. Typical topics include financial planning/control, risk and valuation, capital budgeting.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Global Mgt with professional or conditional status OR Finance Mgt student; FIN 300 or 301 with C or better; ACC 236 or 410 with C or better
FIN	421	Security Analysis and Portfolio Management	Security analysis theory and practice. Selection and management of financial asset portfolios. Securities markets and portfolio risk-return analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 303 or 361) with C or better
FIN	427	Derivative Financial Securities	Study of stock options, index options, convertible securities, financial futures, warrants, subscription rights, and arbitrage pricing theory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; FIN 421 with C or better
FIN	431	Management of Financial Institutions	Asset/liability and capital management in financial institutions. Influence of market factors and regulatory agencies. Emphasizes commercial banks.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and 361 with C or better; Honors student in Finance: FIN 303 and FIN 331 with C or better
FIN	456	International Financial Management	Exchange rate determination, financial markets, managing multinational corporations, capital budgeting, and hedging currency risk exposure from an international perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.	G	Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and 361 with C or better; Honors student in Finance: FIN 303 and FIN 331 with C or better
FIN	461	Financial Cases and Modeling	Case-oriented capstone course in managerial finance. Contemporary issues of liquidity management, capital budgeting, capital structure, and financial strategy.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.	L	Pre-requisites: W.P.Carey Finance BS student; FIN 421 with C or better
FIN	481	Honors Seminar in Finance	Honors course covering topics that include theory and applications concerning managerial finance, investments, and financial institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: W.P.Carey Finance BS student with Honors status; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Finance	1-6		Pre-requisites: Must be an Honors student
FIN	493	Honors Thesis		N	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-6	L	Pre-requisites: Must be an Honors student
FIN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P.Carey Finance BS student; ACC 315, 303 or 340 with C or better; FIN 331 and (FIN 361 or 303) with C or better
FIN	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-6		
FIN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-7		Pre-requisites: W.P. Carey Finance students with professional status; FIN 331 and 361 with C or better; ACC 315 or 340 with C or better
FIN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEL	Y	Z1	W.P. Carey School of Business	Department of Finance	1-3		Pre-requisites: W.P. Carey Finance students with professional status
FIN	502	Managerial Finance	Develops analytical techniques and financial theories used to make optimal decisions in a corporate setting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	2-4		Pre-requisites: ACC 502 with C or better; ECN 501 with C or better
FIN	520	Financial Modeling	Demonstrates how Excel programming techniques can be used to model and manipulate financial data, as applied to equities, options on equities, and options on bonds.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FIN	521	Investment Management	Valuation of equities and fixed income securities. Trading strategies and portfolio management. Performance evaluation. Trading mechanisms and market organization.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	525	Investment Strategies	Introduces theories and practices of the investment process. Covers the fundamental principals and applications of modern portfolio theory, risk-return relation, asset pricing models, investment performance evaluation, and stock and bond valuation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	527	Derivatives and Risk Management	Characteristics and pricing of forwards, futures, swaps, options. Applies instruments for hedging strategies, corporate risk management, and capital budgeting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	530	Derivatives	Covers options, forward contracts, futures contracts, and swaps. Provides a good knowledge of how these contracts work, how they are used, and how they are priced.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	531	Financial Markets and Intermediaries	Short-term and long-term fixed-income securities and their marketplaces, tools for bond portfolio and interest rate risk management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	540	Financial Markets and Instruments	Offers a comprehensive exploration of the revolutionary developments occurring in the world's financial markets.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	550	Fixed Income Securities	Describes important fixed income securities and markets, and develops tools for valuing fixed income securities and managing interest rate risk. Covers traditional bonds and term structure concepts as well as fixed income derivatives and interest rate modeling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	551	Applied Fundamental Analysis	Analysis of financial documents to determine quality of earnings. Forensic financial analysis to diagnose financial health and sustainable growth.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 and ACC 502 with a grade of C or greater or be currently enrolled
FIN	556	International Financial Management	Behavior of exchange rates, interest rates, inflation rates. Analyzes corporate exposure to exchange rate risk and hedging strategies. Multicurrency capital budgeting.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater or be currently enrolled
FIN	560	International Finance and Investments	Examines the financial issues of an international investment decision. Main topics include foreign exchange market, investment alternatives in the international capital markets, and the management of foreign exchange risk.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	561	Strategic Financial Management	Capstone case-oriented course in strategic applications of corporate finance. Acquisition, allocation, and management of funds within the business enterprise.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey Graduate students only; Must have completed FIN 502 with a grade of C or greater
FIN	570	Portfolio Strategies and Hedge Funds	Introduces the principles of asset valuation from an applied perspective. Valuation of financial securities and portfolio management applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		
FIN	581	Advanced Valuation Methods	Analyzes practical aspects of valuing the enterprise using economic value added, free cash flow, and other financial techniques.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
FIN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: FIN 502 with C or better
FIN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FIN	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
FIN	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	781	Theory of Finance	Fundamental tools of financial economics; asset pricing, arbitrage, option pricing, capital structure, dividend policy, asymmetric information, and transaction-cost economics.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		
FIN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisite: W.P. Carey degree-seeking Graduate student
FIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-15		
FIN	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
FIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Finance	1.		
FIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-15		
FIN	300	Fundamentals of Finance	Theory and problems in financial management of business enterprises.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA; ACC 241 or ACC 271, and ECN 221 and ECN 212 with a grade of C or better.
FIN	380	Personal Financial Management	Dynamic analysis of personal financial planning, including time value of money, stock and bond investment, and retirement and estate planning.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: Non-Finance student; Must have minimum 2.0 ASU cumulative GPA and minimum 56 earned hours, or be a non-degree seeking student
FLA	464	Politics of Drama in 20th-Century Europe	Interdisciplinary examination of European drama before and after WWII.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FMP	201	Film: The Creative Process I	History, elements, and techniques of theatrical film: cinematography, directing, acting, scriptwriting, producing, and criticism. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	
FMP	202	Film and Media Production Crew	Provides opportunity to serve in various capacities on student film sets in order to obtain practical production experience. Practicum. Prerequisite: instructor approval.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
FMP	250	Sex and Violence in Film and TV: Ethics Survey	Sex and violence portrayals in media; examines societal evolution, technological development, market imperatives, production codes, and industry realities and practices.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
FMP	300	Focus on Film	Specialized study of prominent film artists, techniques, and genres. Emphasizes the creative process.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: ENG102, 105 or 108 with C or better
FMP	318	Directing for Film	In-depth analysis of directing theory, textual analysis, visualization, shot composition and spatial connection, staging, rehearsal techniques, and camera movement.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Film and Media Production student; FMP 320 with C or better
FMP	320	Film and Media Post-Production	In-depth analysis of editing theory, storytelling, nonlinear editing techniques and equipment, basics of visual and audio effects.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Must be in Film and Media Production student; Completed FMP 300 (or THE 400) with a grade of C or better
FMP	345	Cinematography I	Cinematographer's role, photographic and visual theory, framing, shot composition, cameras and equipment, crew management, basic lighting for film and video.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
FMP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
FMP	417	Business Ethics in Entertainment	Business and ethical practices of the entertainment industry; analysis of ethical decision-making techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		

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FMP	480	Film Production Capstone I	Preparation for final project: screenplay, budget, shooting schedule, production lists and reports for preproduction of required capstone film.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: FMP 318 with C or better; majors only
FMP	481	Film Production Capstone II	Final project shooting and postproduction: shooting, editing picture, sound, effects and music; audience screening of required capstone film.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: FMP 318 with C or better; majors only
FMP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
FMP	492	Honors Directed Study		N	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		
FMP	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be an Honors student
FMP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Must be a Film & Media Production student
FMP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Pre-requisites: Must be a Film & Media Production student
FMP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
FMP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisite: Fine Arts Graduate student
FMS	100	Introduction to Film	Introduces the narrative structure, visual style, and cultural elements of film. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	
FMS	110	Introduction to New Media	Explores the cultural effects of new media technologies. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	
FMS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
FMS	200	Film History	Introduces the technological, aesthetic, social, and economic aspects of international film history.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	(L or HU) & H	
FMS	202	Religion and Popular Culture	Explores various intersector between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	
FMS	209	Screenwriting Fundamentals (online)	Studies the creativity and the technique of screenwriting for the conventional narrative film and for TV; student writing exercises culminate in a script for micro cinema.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: Restricted to online Film and Media Studies students only
FMS	270	Race and Gender in American Film	Explores how Hollywood shapes perceptions of race and gender in American society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Credit is allowed for only FMS 270 or TCL 270
FMS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	300	Television and Cultural Studies	Applies cultural studies theory and method to the study of American television history.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	302	U.S. Media Now	Examines the business of contemporary U.S. film, television, and new media and its relationship to artistic vision and production through research and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: FMS 100, ENG 101 and 102
FMS	309	Intermediate Screenwriting	Utilizing the elements of storytelling, students develop and write a treatment and the first act of a screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	310	Asian Pacific American Arts and Cultures	Explores Asian Pacific American cultural expression in art, literature, film, theatre, dance, and music.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	
FMS	312	Film, Media, and Politics Today	Examines how entertainment technologies inform political innovation and campaigning.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	313	Anti-Semitism in the Media	By examination and discussion of various media, explores the phenomenon of modern anti-Semitism.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	340	Contemporary American Film and Popular Culture	Analyzes American films, television programs, and music as popular cultural documents. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	345	Asian Pacific Americans and Film	Examines representations of Asian Pacific Americans in narrative, popular, experimental, and documentary film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C & H	
FMS	350	Virtual Reality in Film and Media	Analyzes virtual reality in films, media, and fiction. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	351	Emerging Digital Media	Analyzes modern cultural and digital technologies. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L	Pre-requisites: Must have completed one of the following courses with a grade of C or greater: ENG 102, 105 or 108

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FMS	352	Chicana/o Film	Explores how Chicano and Chicana filmmakers have interpreted the Chicano experience through the medium of film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	C	
FMS	354	Critical Studies in Animation	Provides critical and practical tools for analyzing mainstream, experimental, and hybrid animation aesthetics.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: FMS 100
FMS	370	Signs of Aliens: Semiotics of Film and Popular Culture	Introduces semiotics and cultural studies; looks at various meanings ascribed to the sign of the alien.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	
FMS	376	Virgin Mary in History, Film, and Culture	Introduces formation and development of cult of the Virgin Mary; analyzes transformations of Mariology within historical, cinematic, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only FMS or REL 376
FMS	377	Baseball, Film, and American Dreams	Critical viewing and analysis of both narrative and documentary baseball film. Genre typically explores American values and national culture, and changes in our concepts of gender roles, race, aging, social class.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: FMS 100, ENG 101 and 102
FMS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	409	Advanced Screenwriting	Utilizing the elements of storytelling, students outline, develop, and write a feature-length screenplay.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites:ENG 102(or ENG 105/108); FMS 100; FMS 309 with grades of C or better, or currently enrolled
FMS	440	Los Angeles: Movies and Culture	Explores film treatment of the historical culture of Los Angeles. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	441	Global Cinema	Examines how film represents three important dimensions of globalization: its relationship to national culture, terrorism, and immigration. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & G	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	442	Experimental Narrative	Examines texts that experiment with form, content and narrative perspective within print, film and digital media.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 200; ENG 200-level literature course, SLC 202 or FMS 100; FMS 200; Credit is allowed for only ENG 447, FMS 442 or SLC 450
FMS	450	Technology, Culture, and Media	Studies the socio-political relationships among technology, culture, and media. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	460	Masculinity and Film	Examines the representation of masculinity and the male body in film. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	461	Film Theory and Criticism	Examines the major positions and issues in film theory from an historical perspective. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Prerequisite(s): ENG 102, 105 or 108 with C or better; FMS 100 with C or better; Credit is allowed for only FMS 461 or SLC 440
FMS	464	Latina/o Literature	Development of Latina/o literature. Study of genres and themes; attention to literary antecedents of the new U.S.-based Latina literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	(L or HU) & C	Credit is allowed for only FMS 464, ENG 458 or TCL 464
FMS	465	Chicana/o and Latina/o History on Film	Explore history on film; the processes, developing critical perspectives about historiography, and film in relation to U.S.-Mexican borderlands.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & C	Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only FMS or TCL 465
FMS	466	Constructing the Border on Film	Explores the U.S.-Mexico border on film, examining how border images have been constructed and shaped over time.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	C	
FMS	468	Crime and Violence in American Film	Addresses three primary aspects of crime and violence in film: representation, societal attitudes, effects on audience.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	470	Race, Sex, and Identity Online	Relying on critical and cultural theory, addresses the relationship between race, sex, and social identity online.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only FMS or TCL 470
FMS	471	Latinos In Hollywood	Studies representations of Latinos in film; stereotyping, politics of metaphor, allegory, star discourse, self-representation, resistance, and independent film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	480	Globalization, Technology, and Culture	Studies the socio-political relationship between media and the evolution of globalization. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU & G	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	481	Entertainment Technologies	Applies academic and industry knowledge to simulate and to solve "real world" entertainment industry problems and needs.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	482	Entertainment Industries	Uses historical methodologies to critique emerging trends in the business of new media storytelling.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	483	Techno-Entertainment Convergences	Uses historical and scientific methods to forecast future technological developments and use in the entertainment industry.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
FMS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
FMS	486	Holocaust on Film	Examines how motion pictures recorded actual holocaust events and have depicted them since World War II.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better. Credit is allowed for only FMS 486 or REL 486
FMS	487	Religion and Film	Uses a transdisciplinary approach to explore cinematic representations of religious institutions, belief, and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	490	Capstone Seminar	Capstone seminar.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.	HU	Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
FMS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
FMS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6	L	Pre-requisites: Must be an Honors student

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FMS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FMS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
FMS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
FMS	502	Hollywood Film Historiography (Online)	This course is offered online only. Explores historiographic and critical scholarship on Hollywood as an industrial, cultural, and aesthetic enterprise.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	504	Film Analysis	Introduce formal and cultural issues important to understanding movies.	N	DIS	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
FMS	507	Crime and Violence in American Film (Online)	This course is available online only. Focuses on historiographic and critical scholarship on three aspects of crime and violence in American film: (1) regulation and censorship; (2) representation and society; and (3) theories about the effects on audiences of viewing crime and violence in films.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	509	Race, Sex, and Identity Online (Online)	This course is available online only. Investigates scholarly methods and studies focused on the intersection of race, gender, and sexuality online.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	511	Fundamentals of Cinema & Television Narrative Online	Studies the creativity and the technique of screenwriting for the conventional narrative film and for television. Student writing exercises culminate in a script for micro-cinema. Seminar. Pre-requisite: online student in MAS American Media and Popular Culture	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	512	Intermediate Cinema and Television Narrative (online)	Focuses on the feature-length screenplay; students complete the first act and treatment of an original feature.	N	SEM	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisites: MAS American Media and Popular Culture students
FMS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
FRE	101	Elementary French	Intensive aural/oral drill in class and lab; basic grammar supplemented by simple prose readings. Credit is allowed for only FRE 101 or 111	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students may not sign up for FRE 101 if they have received a C or better in FRE101,102,201,202,205,311,312,321,322,411,412
FRE	102	Elementary French	See FRE 101. Credit is allowed for only FRE 102 or 111.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisite: FRE 101; May not sign up for FRE 102 if received a C or better in FRE 111,201,202,205,311,312,321,322,411,or 412
FRE	107	French for International Professions I	Accelerated alternative to FRE 101 and 102 or FRE 111. Functional approach. Emphasizes communicative competence for international professions. Credit is allowed for only FRE 107 or 111. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.		
FRE	111	Fundamentals of French	Primarily for students with two years of high school French who need review to enter second year study. Credit is allowed for only FRE 111 or 101 or 102 or 107. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students may not sign up for FRE 111 if they have received a C or better in FRE 101,102,201,202,205,311,312,321,322,411,412
FRE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
FRE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	201	Intermediate French I	Grammar review, with emphasis on development of skills of speaking, reading, writing, and listening comprehension. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Student may not enroll in FRE 201 if received a C or better in: FRE202,205,311,312,321,322,411,412
FRE	202	Intermediate French II	Continuation of grammar review with emphasis on development of skills in speaking, reading, writing, and listening comprehension. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Students may not sign up for FRE 202 if they have received a C or better in FRE205,311,312,321,322,411,412
FRE	205	Readings in French Literature	Designed to teach reading with facility and comprehension. Vocabulary building and textual analysis of literary genres are major elements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisite: FRE 202: Students who have received a C or better in FRE 321 or 322, may not enroll in FRE 205
FRE	207	French for Business	Alternative to FRE 202. Functional approach. Emphasizes communicative competence for international professions. Not open to students with credit in FRE 202. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.	G	
FRE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	311	French Conversation	Further practice in speaking French, emphasizing current usage and promoting facility in the expression of ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not enroll in FRE 311, if they have received a C or better in FRE 411.
FRE	312	French Composition	Further practice in writing French, emphasizing current usage and promoting facility in the expression of ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not enroll in FRE 312, if they have received a C or better in FRE 412

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FRE	315	French Phonetics	Practice and theory of French pronunciation. Emphasizes standard French, although an overview of regional varieties is offered.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 311 with a grade of D or better, or currently enrolled
FRE	319	Business French	Introduces the structure, vocabulary, and practices of the French business world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 312 with a grade of D or better or currently enrolled
FRE	321	French Literature	Representative masterpieces and significant movements of French literature of the Middle Ages through the 18th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & H	Pre-requisites:FRE 205, 312 with a grade of D or better or currently enrolled
FRE	322	French Literature	Literature of the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:Completed FRE 205 & 312 with a grade of D or greater, or be currently enrolled
FRE	325	Introduction to French Film	Studies French artistic contribution from 1895 to present, with emphasis on recent films starting with the New Wave.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	411	Advanced Spoken French	Improvement of spoken French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 311 with a grade of D or currently enrolled & 6 hours of 300-level French
FRE	412	Advanced Written French	Improvement of composition skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:FRE 312; 6 hours of 300-level French
FRE	415	French Civilization I	Political, intellectual, social, economic, and artistic development of France from its origins to the end of the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:6 hours of upper-division French
FRE	416	French Civilization II	Political, intellectual, social, economic, and artistic development of France from the 18th century to present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	pre-requisites:6 hours of upper-division French
FRE	421	Structure of French	Phonology, morphology, syntax, semantics, and varieties of French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 311 & 312 with a grade of D or better, or currently enrolled
FRE	422	Applied French Linguistics	Applies linguistic theory and second-language acquisition theory to teaching of French.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ASB 480, ENG 213 or SLC 400
FRE	423	French Syntax	Analyzes French syntactic structure by contemporary theoretical models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ASB 480, or ENG 213, or SLC 400 with a D or better or currently enrolled
FRE	432	Gay Identities in Modern French Literature	Examines the representation of homosexuals as well as the emergence of homosexuality as a theme in modern French literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	441	French Literature of the 17th Century	From 1600 to 1660.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	442	French Literature of the 17th Century	From 1660 to 1700.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	445	French Literature of the 18th Century	Contributions of the philosophers and the development of the novel and drama.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 321 with a grade of D or better or currently enrolled, and 6 hours of 300-level French courses
FRE	451	French Poetry of the 19th Century	From Romanticism to Parnassian poetry to Symbolism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	452	French Novel of the 19th Century	From Constant, Hugo, Balzac, Stendhal, and Sand to Flaubert and Zola, with emphasis on major literary movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	453	Theater of the 19th Century	From Romantic drama to the Symbolist Theater. Representative plays of Hugo, Musset, Vigny, Dumas, Becque, Rostand, Feydeau, and Mirbeau.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	461	Modern Narrative	Representative authors from Gide to the new Nouveau Roman.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	462	Modern Poetry	Representative authors from Mallarme to Bonnefoy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	471	The Literature of Francophone Africa and the Caribbean	Selected prose, poetry, and drama of black authors from Africa and the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:FRE 322 with a grade of D or better, and 6 hours of 300-level French courses
FRE	472	Franco-Canadian Civilization	Study of the civilization of Quebec in particular through its history, language, literature, music, and customs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:9 hours of 300-level French courses with a grade of D or better
FRE	480	Translation Theory and Practice	Theoretical and practical approaches to the fundamentals of meaning-based translation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 412 with a grade of D or currently enrolled
FRE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	485	Literary Translation	Theory and practice of literary translation with emphasis on application through individual translation project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:FRE 480 with a grade of D, or currently enrolled
FRE	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
FRE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
FRE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FRE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
FRE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
FRE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	510	Introduction to Textual Analysis	Introduces various oral and written techniques aimed at explicating literary texts. Required of all French graduate students focusing on literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	521	History of the French Language	Principal phonological, morphological, and semantic developments of French from Latin to present, with emphasis on Old and Middle French. Some familiarity with Latin is recommended.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	531	Medieval French Literature	Readings in the epics, early drama, Roman courtois, and other representative literary genres of the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	535	Identity, Gender, and Society in Early Modern French Literature	Readings in French Renaissance literature with special focus on Rabelais, Montaigne, Marguerite de Navarre.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	585	Literary Translation	Theory and practice of literary translation with emphasis on application through individual translation project.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
FRE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
FRE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
FRE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
FRE	790	Reading And Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
FSA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	502	Managing Change in the Fire Service	Dynamics of organizational change and the effect change has on the delivery of fire services to the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	503	Fire Service and the Community	Theoretical concepts of public service to build an understanding of how the fire service fits within the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	510	Fire Department Budgeting and Finance	Functions of budgeting and finance in fire departments within the context of the public sector.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	522	Leadership in the Fire Service	Leadership theories analyzed in a variety of contexts within public and private organizations, then applied to the leadership challenges in the fire service.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student

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FSA	530	Public Policy in the Fire Service	Public policy and the fire services' role in the making of public policy in the community.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	540	Applied Research Methods in the Fire Service	Research methods applicable to problems that arise in the fire service, including assessments of programs and customer service research.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	550	Fire Service Program Management	Functions of developing and managing fire service programs. Designed for advanced students of fire service administration.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	551	Fire Prevention and Public Fire Education	Managing fire prevention organizations and administering fire prevention programs in a contemporary society.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	552	Emergency Medical Services Administration	Complex issues of administering an Emergency Medical Services (EMS) division in a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	553	Special Operations in the Fire Service	Focuses on the variety of special emergency services operations provided by contemporary fire departments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	554	Emergency Fire Operations Administration	Delivery of emergency services to a community by a contemporary fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
FSA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		
FSA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
FSE	105	College Adjustment and Survival	Explores career goals and majors. Emphasizes organization and development of study skills, including time management, stress management, and use of the library.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		Pre-requisites: Freshman or Sophomore in the Ira A. Fulton School of Engineering
FSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	200	Elements of Engineering Design	Advanced version of introduction to engineering for students who have not taken an introduction to engineering course. Credit is allowed for only FSE 200 or various program introduction to engineering courses.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisites: A grade of C or better in PHY 121 or currently enrolled AND a grade of C or better in MAT 265 or 270.
FSE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	301	Entrepreneurship for Engineers	Overview of entrepreneurship, with emphasis on principles suitable for undergraduate engineering students.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisites: School of Engineering BS or BSE student; Minimum Junior standing
FSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		Pre-requisite: Engineering or Construction BS or BSE student
FSE	399	Cooperative Work Experience	Work periods with industrial firms or government agencies alternated with full-time course work. Not open to students from other colleges.	N	PRA	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		Pre-requisite: Engineering BS or BSE student
FSE	400	Creating and Launching a Technology Venture	Focuses on creative and logical processes involved in developing a business idea and investigating its market feasibility.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	401	Intellectual Property for Technology Ventures	Provides basic understanding of legal issues likely to be encountered in a technology venture; practical approaches and solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	402	Operating a Technology Venture	Managing and leading technology ventures. Principles of organizing, planning, controlling, and leading.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	403	Entrepreneurship Practicum	Places students pursuing a Certificate in Technology Entrepreneurship with a practicing entrepreneur to learn about venture development.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Engineering BS or BSE student; Pre/Co-requisite: FSE 301
FSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FSE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6	L	Pre-requisites: Must be an Honors student
FSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		
FSE	497	Honors Colloquium		Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-6		
FSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-7		
FSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-3		
FSE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	501	Technology Entrepreneurship	Fundamental principles and concepts of technology entrepreneurship.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
FSE	502	Strategic Enterprise Innovation	Strategies, techniques, and practices of process, product, and management innovation across the enterprise.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	503	Collaborative Innovation Management	Techniques and practices of collaboration innovation, including an indepth look at managing outsourcing relationships and "wikinomics."	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	504	Corporate Venturing and Intrapreneurship	Explores how companies can create intrapreneurial cultures that lead to greater levels of corporate venturing and long-term competitiveness.	N	LEC	N	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	3.		Pre-requisite: School of Engineering Graduate student
FSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	590	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	594	Conf and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-4		Pre-requisite: School of Engineering Graduate student
FSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		

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FSE	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	690	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	790	Reading and Conf	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-15		
FSE	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-12		
FSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1.		
FSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Dean, Ira A. Fulton School of Engineering	1-15		
FSM	304	Fire Personnel Management	Promotion, personnel development, career and incentive systems, validation of physical requirements, managerial and supervisory procedures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	305	Quality Emergency Services	Covers quality issues relating to services delivered by progressive fire departments. Covers management of personnel and resources during organizational change.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	306	Fire Prevention Organization and Management	Examines and evaluates the techniques, procedures, programs, and agencies involved in preventing fires.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	307	Fire Department Safety Organization and Management	Focuses on the management of fire department safety programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	2.		
FSM	308	Fire Department Budgeting	Examines the role of fire department budgets and their relationship to other levels of government as a planning tool.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
FSM	309	Emergency Medical Service Organization and Management	Focuses on the administration and management of emergency medical services delivered by a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	363	Computer Applications in Emergency Management	Explores specific computer programs that are currently in use for contingency planning, tracking chemical inventories, and response resources.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
FSM	400	Human Behavior and the Fire Threat	Proper ways of conducting post-fire interviews; emphasizes the psychological effects of communications during emergencies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	401	Labor Relations in the Fire Service	Examines the relationships between management and unions using the Relations by Objectives model.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	404	Program Management and Accreditation	Examines the relationships between management and unions using the Relations by Objectives model.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	405	Fire Service Leadership	Focuses on developing personal and organizational leadership qualities required to be successful in the fire service.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	421	Political and Legal Consideration in Fire Science	Study of legal and political considerations that affect the decision making of fire service managers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	425	Fire Service Administration	Presents modern management and planning techniques that apply to organizing a fire department.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	460	Incident Management Systems and Emergency Operations Center	Covers IMS, terminology, players, and management philosophy. EOC setup, activation, operation, and termination. EOC funding and politics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
FSM	493	Honors Thesis	Capstone applied project. Applies knowledge learned from FSM course work to solve a practical fire service problem.	N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-6	L	Pre-requisites: Must be an Honors student
FSM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
FSM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Post-Baccalaureate student
GB	305	Business Law		N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	3.		
GB	305	Business Law		N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	3.		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	SB & G	
GCU	141	Introduction to Economic Geography	Production, distribution, and consumption of various types of commodities of the world and relationships to the activities of humans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GCU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	200	Orientation to Geography	Basic introduction to the Department of Geography faculty, undergraduate graduation requirements, and possible jobs and skills in geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(HU or SB) & G	
GCU	253	Introduction to Cultural and Historical Geography	Cultural patterns, including such phenomena as language, religion, and various aspects of material culture. Origins and diffusion and division of the world into cultural areas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	322	Geography of U.S. and Canada	Spatial distribution of relevant physical, economic, and cultural phenomena in the United States and Canada.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	323	Geography of Latin America	Spatial distribution of relevant physical, economic, and cultural phenomena in South, Middle, and Caribbean America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	

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GCU	325	Geography of Europe	Broad and systematic overview of Europe, emphasizing physical, economic, and cultural phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	326	Geography of Asia	Spatial distribution of relevant physical, economic, and cultural phenomena in Asia, excluding the former Soviet Union.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	327	Geography of Africa	Spatial distribution of relevant physical, economic, and cultural phenomena in Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	328	Geography of Middle East and North Africa	Spatial distribution of relevant physical, economic, and cultural phenomena in the Middle East and North Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	332	Geography of Australia and Oceania	Spatial distribution of relevant physical, economic, and cultural phenomena in Australia, New Zealand, and Pacific Islands.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	344	Geography of Hispanic Americans	Examines the homelands, migrations, settlements, landscapes, roles, and selected cultural traditions of Hispanic Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	350	The Geography of World Crises	Contemporary world crises viewed from a perspective of geographic concepts and techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	351	Population Geography	Demographic patterns; spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	352	Political Geography	Relationship between the sociophysical environment and the state.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	357	Social Geography	Environmental perception of individuals and groups. Stresses the spatial aspect of social and physical environments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	359	Cities of the World I	Historical evolution of urban patterns and structures in the Middle East, India, Southeast Asia, China, Japan, and Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G & H	
GCU	360	Cities of the World II	Historical evolution of urban patterns and structures in Latin America, North America, Sub-Saharan Africa, and Australasia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	361	Urban Geography	External spatial relations of cities, internal city structure, and spatial aspects of urban problems in various parts of the world, particularly in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	364	Energy in the Global Arena	Production, transportation, and consumption of energy, emphasizing the electric power industry and its environmental problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	414	Teaching Geography Standards	Introduces Arizona Geography Standards for K-12 educators, emphasizing exciting curricula and illustrated with best practices by master teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	421	Geography of Arizona and Southwestern United States	Geography of the Southwest with an emphasis on Arizona. Divided into physical geography, history, people, and economy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & C	
GCU	423	Geography of South America		N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	424	Geography of Mexico and Middle America	Central America and Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	425	Geography of the Mexican American Borderland	Geography of a binational and bicultural region. Examines settlement, boundary issues, ethnic subregions, population change, industrial development, and urban growth. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(L or SB) & G	
GCU	426	Geography of Russia and Surroundings	Examines the geography of Russia and other post-Soviet states.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	
GCU	432	Geography of China	Examines the physical, economic, cultural, social, demographic, agricultural, political, historical, and environmental aspects of the geography of China.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & G	

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GCU	433	Geography of Southeast Asia	Examines the biophysical and social features of Southeast Asian nations and peoples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	441	Economic Geography	Spatial distribution of primary, secondary, and tertiary economic and production activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	442	Geographical Analysis of Transportation	Networks, modes, economics, and flows at the urban, national, and international scales. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	444	Geographic Studies in Urban Transportation	Current urban transportation issues in metropolitan Phoenix. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	453	Recreational Geography	Examines problems surrounding the organization and use of space for recreation. Introduces geographic field survey methods of data collection and analysis.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	455	Historical Geography of U.S. and Canada	Geographical perspective on the evolution of the United States and Canada from pre-Columbian times to early 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB & H	
GCU	474	Public Land Policy	Geographic aspects of federal public lands, policy, management, and issues. Emphasizes western wilderness and resource development problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SB	
GCU	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GCU	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
GCU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	495	Quantitative Methods in Geography	Statistical techniques applied to the analysis of spatial distributions and relationships. Introduces models and theory in geography. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	Pre-requisites: MAT 119, 170, 210 or 270
GCU	496	Geographic Research Methods	Scientific techniques used in geographic research. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	Pre-requisites: Must have completed the following courses with a grade of C or greater or be currently enrolled: GPH 371 and GPH 491 and GCU 495
GCU	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GCU	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
GCU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GCU	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	514	Human Dimensions of Sustainability	Concepts and definitions of the human dimensions of sustainability; the role of attitudes and values in shaping sustainability goals, practices, and programs; the diversity of values and socio-cultural contexts relating to sustainability; bottom-up and top-down sustainable policy development, social data collection methodologies. Seminar.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	515	Human Migration	Economic, political, social, and geographic factors underlying population movements. Migration selectivity, streams and counter-streams, labor migration, and migration decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	526	Spatial Land-Use Analysis	Determination, classification, and analysis of spatial variations in land-use patterns. Examines the processes affecting land-use change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		

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GCU	529	Contemporary Geographic Thought	Comparative evaluation of current philosophy concerning the nature and trends of geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	585	Advanced Research Methods in Geography	Specialized research techniques and methodologies in economic, political, or cultural geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	596	History of Geographic Thought	Historical development of geographic thought from pre-Greek days to the early 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GCU	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	671	Introduction to Geographic Teaching	Intensive course in geographic education, scientific method in research on geographic education, research trends, resources for teaching, best practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	672	Physical Geography for Teachers	Transfer of matter and energy exhibited in the Earth's climate, hydrology, soils, biogeography, and landforms; case studies; virtual field trips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	673	Human Geography for Teachers	Analyzes cultural, economic, urban, historical, transportation, population, political, and development geography; case studies; virtual field trips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	674	Geographic Techniques for Teachers	Introduces geographic techniques, including GPS, GIS, remote sensing, cartography, qualitative, and field methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	675	World Geography for Teachers	Systematic overview of geographic knowledge about different world regions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GCU	676	North American Geography for Teachers	Systematic overview of geographic knowledge about different North American regions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		

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GCU	677	Geography Across the Curriculum	Intensive course on intergrating reading, writing, and mathematics standards with geography content; selected case studies; best practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GCU	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GCU	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GCU	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GCU	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SB & G	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GCU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	253	Introduction to Cultural and Historical Geography	Cultural patterns, including such phenomena as language, religion, and various aspects of material culture. Origins and diffusion and division of the world into cultural areas.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	351	Population Geography	Demographic patterns; spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: must have completed MAT 117, or 119, or 142, or 170, or 210, or be currently enrolled in one of these
GCU	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
GCU	357	Social Geography	Environmental perception of individuals and groups. Stresses the spatial aspect of social and physical environments.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
GCU	361	Urban Geography	External spatial relations of cities, internal city structure, and spatial aspects of urban problems in various parts of the world, particularly in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
GCU	373	Introduction to Geographic Information Science	Introduces theoretical and computer-based aspects of Geographic Information Systems, involving data analysis and map generation. fee	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	SG	Pre-requisite: PSY 230 or SBS 304
GCU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
GCU	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
GCU	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
GCU	102	Introduction to Human Geography	Systematic study of human use of the Earth. Spatial organization of economic, social, political, and perceptual environments. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
GCU	121	World Geography	Description and analysis of areal variations in social, economic, and political phenomena in major world regions.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	SB & G	
GER	101	Elementary German	Reading, writing, speaking, and understanding of basic German, with emphasis on pronunciation and grammar. Credit is allowed for only GER 101 or 111. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	102	Elementary German	See GER 101. Credit is allowed for only GER 102 or 111. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	111	Fundamentals of German	Primarily for students with two years of high school German who need review to enter second-year study. Credit is allowed for only GER 111 or both GER 101 and 102. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GER	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
GER	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	201	Intermediate German	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
GER	202	Intermediate German	See GER 201. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	

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GER	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	311	German Conversation	Expansion of idiom through oral practice dealing with contemporary articles, essays, and stories. 3 semester hours limit for majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	312	German Conversation	See GER 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	313	German Composition	Intensive practice in writing, emphasizing style and grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	319	Business Correspondence and Communication	Organization and presentation of clear, effective business communications; vocabulary applicable to modern business usage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	411	Advanced Grammar and Conversation	Improvement of diction and idiom through intensive oral review.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
GER	412	Advanced Grammar and Composition	Improvement of writing ability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:GER 313 with a grade of D or better or currently enrolled
GER	415	German Civilization	Aspects of political, social, and cultural life of the German-speaking world from the beginning through 1600.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisite: A 300-level German course
GER	416	German Civilization	From 1600 through 1945.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisite: A 300-level German course
GER	421	German Literature	From the beginning to Classicism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: 6 hours of 300-level German courses
GER	422	German Literature	From Romanticism to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: 6 hours of 300-level German courses
GER	453	German Literary Masterpieces on Film	Film and literature in their correlation to each other and to cultural, political, and social trends in German-speaking countries. Special arrangements for graduate students and those without a knowledge of German.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	
GER	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
GER	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
GER	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
GER	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
GER	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	521	History of German Language	Linguistic development of German from the earliest records to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	523	German Drama	Drama of the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	527	The Novelle	Special studies in the German short story.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
GER	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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GER	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GER	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
GER	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GER	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
GIT	110	Technical Graphics	Representation of 2-D geometry in orthographic, axonometric and oblique projection; detail, assembly, sectional, and auxiliary views; ANSI-standard lettering, size, and position symbols.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	135	Graphic Communications	Introduces the technologies involved in the design, image generation, transmission, and industrial production of multiple images for consumer utilization.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	210	Creative Thinking and Design Visualization	Fundamental methods, concepts, and techniques of creative thinking, design visualization, and problem solving. Also includes communication, cultural, and societal influences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	212	Computer-Aided Design and Drafting (CADD)	CADD for product design, representation, and documentation; includes projection theory, descriptive geometry, graphics analysis, drafting standards, and precision dimensioning techniques.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	CS	
GIT	215	Introduction to Graphics Programming	Introduces analyzing, planning, and executing graphic programs using industry-standard programming tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	230	Digital Illustration in Publishing	Raster and vector illustration in publishing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	237	Web Content Design	Introduces design principles for visual content on the World Wide Web; raster, vector, fonts, portable documents, color palettes, file formats.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	301	Web Site Development for Nonmajors	Focuses on the basic skills necessary to successfully design or maintain a Web site; geared toward non-GIT majors.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	303	Digital Publishing	Introduces software and hardware used for digital publishing and infographics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	312	3-D Computer Graphics Modeling and Representation	3-D solid modeling applications: concepts, techniques, data structures, modeling strategies, assemblies, geometric representation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	CS	
GIT	313	Technical Illustration and Photorealistic Rendering	Computer-generated graphics for technical illustration and design presentation: axonometric and perspective drawing; shading, shadowing, materials and textures; photorealistic rendering for PostScript output.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	314	Multimedia Design, Planning and Storyboards	Creative and conceptual process of content selection, planning, designing, flowcharting, storyboarding, proposing, configuring, prototyping, and presenting multimedia projects.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	333	Printing Technology	Theory and application of sheet and web press technology for offset-lithography, flexography, screen process, and digital printing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	334	Image Capture and Manipulation	Theory and application of image capture techniques used for all copy formats and conversion processes required for reproduction or dissemination.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	335	Computer Systems Technology	Surveys computer-based technology covering hardware, software, storage, networking, Internet, telecommunications, and information systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	337	Web Content Design	Introduces design principles for visual content on the World Wide Web; raster, vector, fonts, portable documents, color palettes, file formats.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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GIT	352	Technical Presentations	Technologies for planning, creating, and delivering individual and group presentations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	384	Commercial Digital Photography	Digital image, conversion, and output in a commercial studio emphasizing publishing workflow.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	411	Computer Animation	2-D and 3-D computer animation methods: project planning, scripting, storyboards, advanced modeling, lighting, materials mapping, and motion.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	412	Multimedia Authoring, Scripting and Production	Production of multimedia projects using industry-standard authoring applications: project management, client considerations, and project documentation; user interface design, interactivity, media, and databases.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	413	Professional Portfolio Design and Presentation	Digital media portfolio design and production: planning, audience analysis, media selection, authoring, media formats, production, copyright considerations, marketing, and delivery.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	414	Web Site Design and Internet/Web Technologies	Web site design, authoring, standards, protocols, tools, and development techniques for commercial client-sided Web-based graphic information systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	415	Computer Graphics: Business Planning and Management	Implementation planning: feasibility and application studies; needs assessment and operational analysis techniques; organization, managerial, and technology considerations; business plan development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	417	Advanced Internet Programming	Uses industry-standard programming languages and techniques to create interactive graphic information Web sites and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	432	Graphic Industry Business Practices	Business practices related to press/prepress/Web industries; trade customs, cost analysis, marketing and management approaches.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	435	Web Management and E-Commerce	Internet Web site management, security, online databases, and new e-commerce business models.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	436	Gravure Technology	In-depth study of the market profile and production sequences related to the gravure method of printing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	437	Color Reproduction Systems	Scientific analysis for the engineering of color reproduction systems and color models used in the graphics industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	441	Graphic Information Systems	Graphic information systems common to the workplace: graphic user interfaces for online databases, geographic, industrial, architectural, and management applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	450	Digital Workflow in Graphic Industries	Analyzes digital production systems for input, assembly, and output of graphic information to print and Web, including networking and job tracking.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
GIT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GIT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		
GIT	537	Current Issues in Quality Assurance	Directed group study of selected issues relating to quality assurance in the printing, publishing, and information industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	538	Personnel Development for the Graphics Industry	Employee training and development specific to production and management in the graphics industry.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	540	Cross-Media Design Solutions	Examines universal design theory, creative problem solving, and case study applications for print and new media products of the graphics industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	541	Graphic Information Systems	Graphic information systems common to the workplace; graphic user interfaces for online databases, geographic, industrial, architectural, and management applications.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	542	Information Design and Usability	A hybrid of design and technology solutions focusing on how information is organized graphically to communicate, and how usability engineering is applied to human factors.	N	LEL	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
GIT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
GIT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
GLB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		

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GLB	301	Business in the Global Environment	Discusses multinational corporate strategy, structure, operations, and the social and economic factors affecting global business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.	G	Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status.
GLB	302	Culture and Diversity Management	Develops an understanding of culture (individual, organizational, national, subcultural, transnational, and global) and change and interaction applied to management decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3-4		Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status
GLB	303	Relationship Management	Overviews types of relationships found in organizations, then trains students in the interpersonal skills necessary to effectively manage those relationships.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: School of Global Management and Leadership student with Professional or Conditional status
GLB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	401	Global Business Integration	Provides an integrative framework for global corporate strategic analysis and opportunities for integrated decision making in actual and simulated businesses.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: Global Mgt student with professional status; Minimum 87 hours; OPM 301 and (FIN 300 or 301) with C or better; MKT 300 or 301 with C or better; GLB 303, HRM 410 or MGT 301 with C or better
GLB	411	Global Competitiveness	Discusses factors contributing to international competitive success of nation-states, national industries, and specific firms. Includes detailed analysis of actual firms.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.		Pre-requisites: School of Global Management and Leadership International Studies student with Professional or Conditional status; GLB 301 with C or better
GLB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
GLB	492	Honors Directed Study		N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1-6		
GLB	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
GLB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
GLB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		Pre-requisite: School of Global Management and Leadership International Studies student with Professional or Conditional status
GLG	101	Introduction to Geology I (Physical)	Basic principles of geology, geochemistry, and geophysics. Rocks, minerals, weathering, earthquakes, mountain building, volcanoes, water, and glaciers. Students must complete both GLG 101 and GLG 103 to receive an SQ (general studies).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ & G	
GLG	102	Introduction to Geology II (Historical)	Basic principles of applied geology and the use of these principles in the interpretation of geologic history. fee. Both GLG 102 and 104 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SG & H	
GLG	103	Introduction to Geology I-Laboratory	3 hours lab, some field trips. Fee. Both GLG 101 and 103 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SQ	
GLG	104	Introduction to Geology II-Laboratory	Lab techniques involving map interpretation, cross sections, and fossils. Both GLG 102 and 104 must be taken to secure SG general Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SG	
GLG	105	Introduction to Planetary Science	Solar system objects and their geologic evolution, surfaces, interiors, and atmospheres; weekly lab for data analysis and experiments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	4.	SG	
GLG	110	Geologic Disasters and the Environment	Geological studies as they apply to interactions between humans and Earth. Includes geological processes and hazards, resources, and global change. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SG & G	
GLG	111	Geologic Disasters Laboratory	Basic geological processes and concepts. Emphasizes geology-related environmental problems concerning Arizona. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.	SG	
GLG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GLG	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	300	Geology of Arizona	Basic and historical geology, fossils, mining, energy resources, environmental problems, landscape development, and meteorites, cast in examples from Arizona. Not open to Geology majors with credit in GLG 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	304	Geology of the Grand Canyon	Reviews the discovery, history, origin, and geology of the Grand Canyon of the Colorado River in Arizona. 6-day field trip down the river (first 6 days after commencement in May) required at student's expense. Requires field research and term paper on trip.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2.		
GLG	310	Structural Geology	Geologic structures and the mechanical processes involved in their formation. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: Must have completed GLG 101 AND either MAT 270 or MAT 290 with a grade of D or greater

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GLG	321	Mineralogy	Crystal chemistry, crystallography, mineral identification, origin and occurrence of minerals, systematic mineralogy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3-4		Pre-requisites: CHM 113 and (MAT 270 or MAT 290); Pre/Co-requisite: CHM 116
GLG	325	Oceanography	Introduces marine geology, chemistry, and physical and biological oceanography. Methods of oceanic exploration, environmental and social aspects of oceans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: CHM 101 or CHM 113 with C or better; BIO 100, BIO 182 or GLG 101 with C or better; Credit is allowed for only BIO or GLG 325
GLG	362	Geomorphology	Land forms and processes that create and modify them. Lab and field study of physiographic features.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	400	Earth and Space Exploration Colloquium	Presentation of recent research by faculty and guests. Written assignments required. 1 semester hour required for Geological Sciences majors; may be repeated for a total of 2 semester hours.	N	LEC	Y	P/F	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in geological sciences. Requires weekly reflective reading and writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	C	
GLG	404	Fundamentals of Planetary Geology	Surveys planetary topics, including impacts, tectonics, and volcanism on planetary objects, and use of spacecraft data, including geological mapping.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	405	Geology of the Moon	Current theories of the origin and evolution of the moon through photogeological analyses and consideration of geochemical and geophysical constraints. Possible field trips to examine Arizona geology. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	406	Geology of Mars	Geological evolution of Mars through analyses of spacecraft data, theoretical modeling, and study of terrestrial analogs; emphasizes current work. Possible field trips to examine Arizona geology. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	410	Computers in Geology	Geological computer skills including data processing, visualization, presentation, numerical analysis, software and hardware applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	CS	
GLG	412	Geotectonics	Earthquakes, Earth's interior, formation of oceanic and continental crust, and plate tectonics. Emphasizes current work.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	416	Field Geophysics	Methods of applied geophysical exploration; seismic refraction, gravity, electrical resistivity, geomagnetics. Includes survey planning, data acquisition, processing, analysis, and interpretation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	418	Geophysics	Solid earth geophysics; geomagnetism, gravity, seismology, heat flow. Emphasizes crust and upper mantle.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	419	Geodynamics	Emphasizes application of continuum principles to geological problems, including lithospheric stresses, heat transfer, fluid mechanics, and rock rheology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	420	Volcanology	Distribution of past and present volcanism, types of volcanic activity, mechanism of eruption, form and structure of volcanoes, and geochemistry of volcanic activity. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	424	Petrology	Origin of igneous and metamorphic rocks. Optical mineralogy, hand specimen identification, and thin-section analysis. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	430	Paleontology	Introduces concepts and analytical techniques in biogeology, paleobiology, paleoecology, and paleoenvironmental reconstruction from the fossil record. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	435	Sedimentology	Origin, transport, deposition, and diagenesis of sediments and sedimentary rocks. Physical analysis, hand specimen examination, and interpretation of rocks and sediments. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: Must have completed GLG 102 and GLG 321 with a grade of C or greater
GLG	441	Ore Deposits	Origin, occurrence, structure, and mineralogy of ore deposits. fee	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	451	Field Geology I	Geological mapping techniques using topographic maps and aerial photos. Intensive field-based instruction. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	L	Pre-requisites: GLG 310 with C or better; Pre/Co-requisite: GLG 321
GLG	452	Field Geology II	Continuation of GLG 451. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	L	Pre-requisites: GLG 451 and GLG 321 with C or better; MAT 270 or MAT 290 with C or better
GLG	455	Advanced Field Geology	Geologic mapping in igneous, sedimentary, and metamorphic terrains of the Basin and Range province of Arizona. May be repeated for credit. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3-4		
GLG	456	Cordilleran Regional Geology	Systematic coverage through space and time of the geological development of western North America, emphasizing the western United States. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	460	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	461	Geomicrobiology	Past and present interactions among microbial life, geological materials, and biogeochemical cycles involving carbon, sulfur, phosphate, nitrogen, and minerals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	470	Hydrogeology	Geology of groundwater occurrence, aquifer and well hydraulics, water chemistry and quality, contaminant transport, remediation. Emphasizes quantitative methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	481	Geochemistry	Origin and distribution of the chemical elements. Geochemical cycles operating in the Earth's atmosphere, hydrosphere, and lithosphere.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		

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GLG	485	Meteorites and Cosmochemistry	Chemistry of meteorites and their relationship to the origin of the Earth, solar system, and universe.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	490	Topics in Geology	Special topics in a range of fields in geology. Fee.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
GLG	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
GLG	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6	L	Pre-requisites: Must be an Honors student
GLG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	495	Undergraduate Thesis	Guided research culminating in the completion and presentation of an undergraduate thesis based on supervised research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-6		
GLG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-7		
GLG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
GLG	500	Earth & Space Exploration Colloquium	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	501	Geology of Arizona	Basic and historical geology, fossils, mining, energy resources, environmental problems, landscape development, and meteorites, cast in examples from Arizona. Research paper required.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	504	Geology of the Grand Canyon	Reviews the discovery, history, origin, and geology of the Grand Canyon of the Colorado River in Arizona. 6-day field trip down the river (first 6 days after commencement in May) required at student's expense. Requires field research and term paper on trip.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2.		
GLG	510	Advanced Structural Geology	Mechanics of rock deformation, emphasizing relationship among field observation, theory, and experiment. Stress, strain, simple constitutive relationships, failure criteria, and the basis of continuum methods. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	520	Advanced Physical Volcanology	Selected volcanologic topics, including explosive eruption processes, lava flow mechanics, and intrusive mechanisms. Fee.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	2-3		
GLG	547	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		You may not enroll in GLG 547 if you have credit in BIO 515, or PAF 547, or SOS 516
GLG	581	Isotope Geochemistry	Geochemistry and cosmochemistry of stable and radioactive isotopes; geochronology; isotope equilibria.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	582	Physical Geochemistry	Applies thermodynamic and kinetic principles to geochemical processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
GLG	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		

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GLG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
GLG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-12		
GLG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
GLG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
GLG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Earth and Space Exploration	1-15		
GLG	101	Introduction to Geology I (Physical)	Basic principles of geology, geochemistry, and geophysics. Rocks, minerals, weathering, earthquakes, mountain building, volcanoes, water, and glaciers. Students must complete both GLG 101 and GLG 103 to receive an SQ (general studies).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ & G	
GLG	103	Introduction to Geology I-Laboratory	3 hours lab, some field trips. Fee. Both GLG 101 and 103 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	
GLG	110	Geologic Disasters and the Environment	Geological studies as they apply to interactions between humans and Earth. Includes geological processes and hazards, resources, and global change. Both GLG 110 and 111 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SG & G	
GPH	111	Introduction to Physical Geography	Spatial and functional relationships among climates, landforms, soils, water, and plants. Credit is allowed for only GPH 111 or 411. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	SQ	
GPH	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GPH	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	200	Orientation to Geography	Basic introduction to the Department of Geography faculty, undergraduate graduation requirements, and possible jobs and skills in geography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		

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GPH	210	Society and Environment	Examines the interaction among social processes, key environmental issues, and nature's role as a resource at global and regional scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	211	Landform Processes	Laboratory science class on earth-surface processes, with exercises emphasizing how erosion, transportation, and deposition modifies landforms. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	SQ	
GPH	212	Introduction to Meteorology	Fundamentals of weather and climate, including basic atmospheric processes and elements. Students whose curricula require a lab course must also register for GPH 214. Both GPH 212 and 214 must be taken to secure SQ General Studies credit	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SQ	
GPH	213	Introduction to Climatology	Fundamentals of meteorological/climatological analysis, including terminology and symbology. Recommended for meteorology/climatology program students. Both GPH 213 and GPH 215 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	SG	
GPH	214	Introduction to Meteorology Laboratory	Introduces basic meteorological/climatological data and measurements. Suggested concurrent enrollment in GPH 212. Both GPH 212 and 214 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.	SQ	
GPH	215	Introduction to Climatology Laboratory	Fundamentals of meteorological/climatological map analysis and interpretation. Recommended for meteorology/climatology program students. May be taken concurrently with GPH 213. Both GPH 213 and GPH 215 must be taken to secure SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.	SG	
GPH	271	Maps and Map Reading	Map types, uses, limitations, and evolution. Communication via paper and digital medium. Navigation, interpretation, projections, sources, symbols, classification, case, handling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	314	Global Change	Response of Earth's natural systems (atmosphere, hydrosphere, lithosphere, biosphere) to past environmental change, and effects of potential future changes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & G	
GPH	370	Geographic Information Technologies	Introduces modern geographic information technologies, including cartography, GIS, remote sensing, global positioning systems, and statistical analyses. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	371	Introduction to Cartography and Georepresentation	Study and creation of maps. Fundamental mapping principles (projection, scale, generalization, symbolization) and computer-based cartographic production. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	372	Air Photo Interpretation	Subset, remote sensing, includes photography, films, aerial geometry, image components, stereoscopy, photogrammetry, ground truthing; interpret physical, cultural, economic, intelligence information.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	373	Geographic Information Science I	History and basic aspects of GIS including map and data file structure, conversions, and synthesis with a computerized environment. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.	CS	Pre-requisite: GPH 370 with C or better
GPH	381	Geography of Natural Resources	Nature and distribution of natural resources and the problems and principles associated with their use.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	401	Topics in Physical Geography	Open to students qualified to pursue independent studies.	Y	FLD	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GPH	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in discipline. Requires weekly reflective reading and writing. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	C	
GPH	405	Energy and Environment	Sources, regulatory and technical controls, distribution, and consequences of the supply and human use of energy. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	409	Synoptic Meteorology I	Diagnostic techniques and synoptic forecasting. Includes techniques of weather analysis, map interpretation, and satellite and radar analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GPH	410	Synoptic Meteorology II	Diagnostic techniques and synoptic forecasting. Includes techniques of weather analysis, map interpretation, and satellite and radar analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
GPH	411	Physical Geography	Introduces physiography and the physical elements of the environment. Credit is allowed for only GPH 411 or 111.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		

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GPH	412	Physical Climatology	Physical processes in the earth-atmosphere system on regional and global scales; concepts and analysis of energy, momentum, and mass balances.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	413	Meteorological Instruments and Measurement	Design and operation of ground-base and aerological weather measurement systems. Collection, reduction, storage, retrieval, and analysis of data.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	414	Climate Change	Surveys three climate research areas: paleoclimatology, theories (e.g., greenhouse warming), numerical modeling.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	418	Landforms of the Western United States	Studies landforms and geomorphic processes in the western United States, including lecture, topographical maps, aerial photographs, satellite imagery, and field trips. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	
GPH	422	Plant Geography	Plant communities of the world and their interpretation, emphasizing North American plant associations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: GPH 111 or BIO 187 (or both PLB 200 and PLB 201) with C or better; Credit is allowed for only GPH or PLB 422
GPH	433	Alpine and Arctic Environments	Regional study of advantages and limitations of the natural environment upon present and future problems involving resource distribution, human activities, and regional and interregional adjustments.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	G	
GPH	471	Geographics: Interactive and Animated Cartography and Geovisualization	Advanced cartography, stressing influence and application of the computer on geographic representation. Emphasizes creation of maps for the Internet. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	
GPH	473	Geographic Information Science II	GIS as a basis for microcomputer spatial analysis and synthesis. Includes digitizing, database organization, spatial retrieval, and graphics. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	CS	Pre-requisites: Must have completed both GPH 373 and CSE 100 with a grade of C or greater or be currently enrolled
GPH	474	Dynamic Meteorology I	Large-scale atmospheric motion, kinematics, Newton's laws, wind equation, baroclinics, vorticity, and the midlatitude depression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	475	Dynamic Meteorology II	Topics in climate dynamics. General circulation, numerical modeling, teleconnection phenomena, and surface-atmosphere interaction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	481	Environmental Geography	Problems of environmental quality, including uses of spatial analysis, research design, and fieldwork in urban and rural systems.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	483	Geographic Information Analysis	Basics of spatial data analysis. Topics include point pattern analysis, spatial autocorrelation, spatial regression, and kriging. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	491	Geographic Field Methods	Field techniques, including use of aerial photos, large-scale maps, and fractional code system of mapping; urban and rural field analysis to be done off campus. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GPH	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
GPH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
GPH	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
GPH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
GPH	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

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GPH	511	Fluvial Processes	Geographical aspects of processes of river erosion, transportation, sedimentation: emphasizing spatial characteristics of forces, resistance, landforms, sediment; includes computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	533	Snow and Ice	Processes, distribution, climatic interactions of snow/ice emphasizing mass balance, snow stratigraphy/metamorphism and glacier/snowpack climatology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	535	Water Law and Planning	In-depth study of legal materials providing substantive knowledge of water law, water management issues, and land use planning options.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	573	Geographic Information Science III	In-depth look at programming within GIS. Focuses on programming and methodology, utilizing specific software, and basic scientific computing. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	575	Geographic Applications of Remote Sensing	Uses imaging and nonimaging methods of remote acquisition of data, including satellite sensors, airborne radar, multiband scanning, conventional photographic sensors, and ground-based equipment.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	596	Advanced Spatial Statistics	Multivariate and advanced statistical techniques including Box-Jenkins modeling and spectral analysis. Requires project papers and presentations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
GPH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	601	Introduction to Geographic Information Systems	Introduces GIS theory and practice for professionals. Module 1 of the fall semester for MAS-GIS professional degree program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	602	Intermediate GIS	Intermediate GIS for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	603	Spatial Statistics and Modeling	Spatial statistics and modeling for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	604	Implementation in the Corporate and Public Sectors	Uses GIS in the corporate and public sectors. GIS ethics. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		

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GPH	605	GIS Project: Real-World GIS Project Planning and Implementation for Public Sector Agencies	GIS project development for the public sector. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	606	Gis Project Presentation	Mastering technical project presentation for GIS professionals. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	2.		
GPH	610	Programming the GIS Environment	Programming the GIS environment for the MAS-GIS program. Required for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	620	Remote Sensing	Remote sensing for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	630	Air Photo Interpretation for MAS-GIS	Air photo interpretation for the MAS-GIS program. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	640	GIS for Business	Uses GIS in business for the MAS-GIS program.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	650	GIS for the Internet	GIS for the Internet.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
GPH	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
GPH	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GPH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GPH	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
GPH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-15		
GRA	101	Designing Life	Helps students develop strategies to successfully navigate their education experience. Focuses on critical and reflective thinking.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Students may not enroll in GRA 101 if they received a D or better in GRA 440. Must be a College of Design student
GRA	111	Graphic Design History I	Surveys development of visual communication from its origins to the 20th century. Investigates significant technological, industrial, and social influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	
GRA	112	Graphic Design History II	Surveys contemporary and 20th-century graphic design. Investigates relationships among graphic design and related disciplines, technological, industrial, and social influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 111 with C or better
GRA	121	Principles for Graphic Design I	Graphic design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design student; Co-requisite: GRA 111
GRA	122	Principles for Graphic Design II	Continued exploration of graphic design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 121 with a C or better; Co-requisite: GRA 112
GRA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	220	Design Drawing I	Drawing as language to explore and communicate ideas. Development of drawing aptitude as language and process for graphic design thinking.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 122 with C or better; Passed Milestone; Co-requisites: GRA 221; GRA 222
GRA	221	Letterform	Drawing of letterforms with focus on proportion and structure. Introduces letterform nomenclature and classifications. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA122 with C or better; Passed Milestone; Co-requisite: GRA 220; GRA 222
GRA	222	Visual Communication I	Theoretical and applied studies in shape, drawing, and color. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA122 with C or better; Passed Milestone; Co-requisite: GRA 220; GRA 221
GRA	223	Typography	Theoretical exercises in spatial and textural qualities of type. Problems in tension, activation, and balance. Exercises in simple typographical applications. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 220 and GRA 221 with C or better; Co-requisite: GRA 224
GRA	224	Visual Communication II	Transition from theoretical to applied problems. Emphasizes refinement of visual skills. 6 hours a week. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 220 and GRA 222 with C or better; Co-requisite: GRA 223
GRA	225	Communication/Interaction Design Theory	Theory related to the design of communication artifacts and interaction within various media environments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
GRA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	321	Technology for Design I	Explores the process of technology in design. Projects interface with GRA 361.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design student; Co-requisite: GRA 361
GRA	322	Technology for Design II	Emphasizes advanced technology in design problems. Projects interface with GRA 362.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 321 with C or better; Co-requisite: GRA 362
GRA	345	Design Rhetoric	Develops critical thinking and expression of ideas in concise and persuasive written and spoken form.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	L	Pre-requisites: Graphic Design, Architecture, Interior Design, Industrial Design, Housing Community Development or Design Studies BA; ENG 102, 105 or 108 with C or better
GRA	361	Visual Communication III	Explores methodologies of strategic communication, development of visual systems, and information design ideation processes leading to applied projects in print and digital media. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 223 & 224 with C or better; Co-requisite: GRA 321
GRA	362	Visual Communication IV	Comprehensive studio projects with emphasis on production processes leading to multidisciplinary applied projects in print, 3-D space, and digital media. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 361 with C or better; Co-requisite: GRA 322
GRA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	401	Creative Environment	Explores and investigates theories of the psychology of space, psychology of people in space, and the psychology of objects as it pertains to creativity and the creative environment.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
GRA	421	Exhibit Design	Familiarization with the processes associated with the design of exhibits, especially visual communication in 3-D.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 362 with C or better; Co-requisites: GRA 422; GRA 461
GRA	422	Motion Graphics and Interaction Design	Discusses and explores theory related to the design of motion graphics and interaction through lectures and studio projects.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Graphic Design student; GRA 322 with C or better; Co-requisites: GRA 421; GRA 461
GRA	423	Advanced Interaction Design	Advanced discussion and exploration of theory related to the design of interaction.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 422
GRA	424	Advanced Media	Advanced exploration of digital media for communication.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: GRA 422 with C or better

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GRA	440	Finding Purpose	Career orientation in the creative professions, including value clarification, decision making, lifestyle planning, goal setting, and expression of individual talents.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Students may not enroll in GRA 440 if they received a D or better in GRA 101
GRA	461	Visual Communication V	Comprehensive studio projects with emphasis on design processes, including research, writing, critical thinking, practice, presentation, and analysis. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 362 with C or better; Co-requisites: GRA 421; GRA 422
GRA	462	Visual Communication VI	Comprehensive studio projects pursued in cooperation with a public organization or private enterprise. All projects culminate in an exhibit. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Graphic Design student; GRA 461 with C or better; Co-requisites: GRA 423; GRA 424
GRA	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
GRA	465	Collaborative Design Development II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
GRA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Graphic Design student; GRA 362 with C or better; Co-requisite: GRA 461
GRA	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
GRA	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
GRA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
GRA	526	Visiting Designers	Series of workshops (three per semester) in which students work closely with professionals and scholars in design and related disciplines.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design or PhD in Environmental Design & Planning student
GRA	561	Methods in Visual Communication I	Introduces methodology in visual communication.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design or PhD in Environmental Design & Planning student
GRA	562	Methods in Visual Communication II	Advanced theories and methodologies in visual communication. Emphasizes visual search as the synthesis of theory and practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: DSC 561 with C or better
GRA	563	Thesis Document Design	Emphasizes the construction of the final thesis document as a visual communication object and/or medium.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design student
GRA	581	Internship in Teaching Design	Develop assignments, conduct critiques, structure dialogue, make presentations, and assist in the instruction of studio and lecture courses.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Master of Science in Design student
GRA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
GRA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
GRA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
GRD	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GRD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
GRD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		
GRD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
GRK	101	Elementary Ancient Greek	Ancient Greek grammar and vocabulary with an emphasis on developing reading skills. For beginning students only.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
GRK	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
GRK	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	201	Intermediate Ancient Greek	Continuation of GRK 101. Ancient Greek syntax and grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: GRK 101 with C or better
GRK	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	301	Ancient Greek Literature I	Readings in ancient Greek prose; advanced grammar. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: GRK 201 with C or better
GRK	302	Ancient Greek Literature II	Continuation of GRK 301. Readings in ancient Greek poetry.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: GRK 301 with C or better
GRK	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
GRK	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
GRK	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
GRK	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
GTD	501	Global Technology and Development	Major theories of economic, political, and social development, with particular emphasis on the impact of current technologies and globalization.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	503	Technology and the International Political System	Historical development of international political system, with emphasis on role of technology.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	505	Research Design in Technology and Development	Emphasizes techniques of primary data collection, effective uses of secondary sources, for qualitative and quantitative applications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
GTD	506	Quantitative Analysis in Technology and Development	Uses correlation and regression-based multivariate statistical approaches in development studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre Requisites: Graduate or Non Degree seeking Graduate Students Only
GTD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
GTD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
GTD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	School of Letters & Sciences	School of Letters and Sciences	1.		
GTD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
GTD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	School of Letters & Sciences	School of Letters and Sciences	1-12		
HCR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HCR	210	Clinical Health Care Ethics	Healthcare ethics emphasizing analysis and ethical decision making at clinical and health policy levels for healthcare professionals.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisite: ENG 102,105 or 108
HCR	220	Introduction to Nursing and Healthcare Systems	Introduces the social, political, and economic contexts in which the nursing profession and healthcare systems in the United States evolved.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	H	
HCR	230	Culture and Health	Cultures of diverse groups and health/illness. Cross-cultural communication, awareness of own cultural influences, indigenous and alternative healing practices.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	C & G	
HCR	240	Human Pathophysiology	Chemical, biologic, biochemical, and psychological processes used in study of structural and functional alterations in health with selected therapeutics.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Undergraduate Nursing students; BIO 201, BIO 202, CHM 101 or higher, MIC 205 and MIC 206 with C or better
HCR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HCR	550	Principles of Epidemiology for Healthcare	Introductory graduate-level course intended to provide students with fundamental epidemiology concepts and methods which can be applied to their field of interest.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	561	Responsible Conduct of Clinical Research	Introduces concepts and policies for the responsible conduct of research (RCOR), institutional review boards, and dissemination of findings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	562	Clinical Research Data Management and Technology Implementation	Orientation to database design and management, technology assessment methods, auditing procedures for continuous quality improvement (CQI), and cost-effectiveness analysis (CEA).	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	563	Clinical Research Management and Regulatory Affairs	Principles of clinical research management and regulatory affairs. Overview of national/international regulatory systems and agencies, and trends in conducting clinical research.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	564	Capstone Clinical Research Management Project	Culmination course integrating all components of CRM core courses demonstrating knowledge and competency in designing and managing clinical trials. Students must have documentation of unencumbered professional license in the state where the capstone project will be completed, if required.	N	DIS	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: HCR 550, HCR 561 and HCR 562 with a C or better; Pre or Co-requisite: HCR 563 (with C or better if completed)
HCR	565	Clinical Research Operations	Development, implementation, and operations of FDA clinical research trials, including budgeting, contract negotiations, site evaluation, marketing, project management, and reporting.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	566	Capstone Clinical Research Management Project II	Culmination course integrating CRM degree coursework by demonstrating knowledge and competency in clinical research management planning, operations, and implementation processes.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	567	Applied Cost-Effectiveness Analysis in Intervention Research	Principles and methods of cost-effectiveness analysis and the application to interpreting clinical trial and sociobehavioral intervention results	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Clinical Research Management Master's program or any graduate nursing program; HCR 561 and HCR 565 with D or better
HCR	569	Applied Principles of Data Management & Inferential Statistics in Healthcare Research	Applied principles of data management and inferential statistics in epidemiological, psychosocial, medical, nursing, and healthcare research. Seminar. Prerequisites: DNP 679; HCR 572; NUR 609; admission to Clinical Research Management Certificate(NUCRGRCC) or master's program (NUCRMMS), any graduate nursing program.	N	SEM	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Clinical Research Management Certificate or Master's program or any graduate Nursing program; NUR 609, DNP 679 and HCR 572 with D or better
HCR	570	Introduction to International Health Systems, Professions, and Research	Introduces systems of international healthcare delivery, professions that provide healthcare delivery, and international research principles and practices.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	571	Cultural Diversity in Clinical Practice	Introduces culturally diverse aspects of clinical care, including culture bound syndromes folk practices, appropriate assessment approaches, and client/provider interaction.	N	DIS	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HCR	572	International Health Capstone Project	Culminating course integrating all International Health requirements that produce culturally responsive implementation and evaluation plan for the student's clinical practice. A portion of the course will be held in Mexico.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		

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HCR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
HCR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
HDA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
HDA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
HDA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
HDA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
HDA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
HDA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-7		
HDA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-3		
HDA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
HDA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
HDA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
HDA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-4		
HDA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
HDA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	Dean, Herberger Institute for Design and the Arts	1-12		
HEB	101	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
HEB	102	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: HEB 101 with C or better
HEB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HEB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	201	Intermediate Modern Hebrew	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Pre-requisites: HEB 102 with C or better
HEB	202	Intermediate Modern Hebrew	Intensive review of grammar, with emphasis on the development of the skills of speaking, listening comprehension, reading, and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Pre-requisites: HEB 201 with C or better
HEB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	313	Advanced Modern Hebrew	Continued development of ability to communicate orally and in writing. Reading of selected literary works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: Must have completed HEB 202 with a grade of C or greater or be currently enrolled
HEB	314	Advanced Modern Hebrew	Continued development of ability to communicate orally and in writing. Reading of selected literary works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: Must have completed HEB 313 with a grade of C or greater or be currently enrolled
HEB	375	Contemporary Culture of Israel	Intense study of aspects of historical, social, political, and cultural modern life in Israel. Beginning of Zionism to present day.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
HEB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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HEB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
HEB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
HEB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HEB	101	Elementary Modern Hebrew	Reading, writing, speaking, and understanding of basic modern Hebrew, with emphasis on pronunciation and grammar. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	4.		
HED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
HED	510	Introduction to Higher Education	Overview of American higher education, including philosophical, political, and social aspects.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-4		
HED	527	Seminar: Student Affairs Administration	Organizational models, administrative competencies and skills, and emerging challenges of student affairs administration.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
HED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	602	Institutional Research/Strategic Planning	Provides an overview of policy research and planning in higher education at the campus system and governing/coordinating agency levels.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	611	Curriculum and Instruction	Curriculum development, instructional organization, and improvement of instruction in higher education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		

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HED	620	Diversity in Higher Education	Overview of the demographic profile of college students, faculty, and staff. Addresses issues of access, retention, and development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	634	The American Community College	Philosophy, history, curriculum, faculty, students, organization, financing, research, policy and current issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	644	Higher Education Finance and Budgeting	Financial planning and budgeting in higher education institutions. Issues related to financing public and private colleges and universities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	649	Law of Higher Education	Analyzes legal issues related to higher education; examines key court decisions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	668	Grant Writing and Grant Makers: The Washington Context	Develops successful proposals for educational research projects. Students gain experience writing for federal agencies, reviewing, and being evaluated on grant proposals.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking); Credit is allowed for only CPY or HED 668
HED	679	The American College Student	Overview of American college student from demographic, background characteristics, and values/attitudes/perspectives. Includes access, persistence, and degree completion.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	687	Governance, Coordination, and External Influences in Higher Education	Study of governance and coordination in higher education systems and the impact of external forces on them.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	688	Organizational Theory	Major views of organizations and their influence on role definition and participant behaviors in educational organization.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	689	Leadership in Higher Education	Theory and practice of leadership and administration in higher education institutions.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
HED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
HED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
HED	702	Critical Policy Issues In Higher Education	How great expectations in Washington are dashed in Oakland, Pressman and Wildavsky (1984) state that "policies imply theories--Whether stated explicitly or not, policies point to a chain of causation between initial conditions and future consequences." Policy can be broadly defined as a principal, plan, or course of action undertaken by governments, organizations, or individuals and designed to influence and determine decisions and actions. Many assumptions made by policy makers and other constituencies as well as competing social and political considerations shape the development of policy in higher education. Given the importance of federal and state public policy-making to higher education, we examine the effect of public policy on the functioning of colleges and universities and explore the various facets of public policy issues. Examines critical policy issues for higher education and the assumptions underlying their development.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HED	703	Institutional Research and Evaluation in Higher Education	Higher education professionals (e.g., administrators, faculty, and researchers) are expected to develop an understanding of and appreciation for the role of research, analysis, and evaluation. Institutional research and evaluation are important functions in the advancement of colleges and universities. These functions help to maintain efficacy within educational organizations by providing vital data and analysis used in planning, decision-making, and policy development. Designed to develop a deep understanding of the contextual and practical applications of research and evaluation within higher education institutions. Students develop skills and execute techniques that are critical to conducting institutional research and evaluation.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student
HED	704	Qualitative Case Study Approaches For Policy Research In Higher Education	Provides advanced graduate students with instruction in qualitative case study research approaches as applied to questions of higher education policy. Emphasizes individual and group interviewing as techniques for qualitative case study data collection, coding, and analysis. Particularly useful for advanced doctoral students who plan to conduct a qualitative dissertation related to a higher education policy topic.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student
HED	705	Ethics, Diversity, and Educational Leadership in Higher and Postsecondary Education	Students read and discuss recent writings on ethical decision making as related to the context of higher and postsecondary education. According to Shapiro & Gross (2008), "educational leaders have always had to make important decisions that affect the studies and lives of the next generation." St. John (2009) underscores the importance to ethical practice of understanding critical higher education issues in organizational practice, the gaps between moral beliefs and actions, and improving equity in organizations. Doctoral students review theoretical concepts related to ethical decision making and apply them to moral dilemmas in higher and postsecondary education leadership, policy-making, and organizational change.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student
HED	707	Higher Education Institutional Types and Innovative Initiatives	Students gain an in-depth understanding of the various types of higher and postsecondary education institutions in the United States, including two-year and four-year colleges and universities, historically Black colleges and universities (HBCU's), Hispanic-serving institutions (HSI's), tribal colleges, women's colleges, faith-based colleges, and for-profit colleges. Covers current classification system used to group each institutional type. Examines the contribution of each institutional type to the development of American higher education, their current status, and potential futures. Studies exemplary programs, within various institutional contexts, that seek to address the academic needs of diverse student communities. Guest speakers and an out-of-state institutional site visit provide opportunities for students to interact with and learn from faculty and administrators within institutional contexts.	N	LEC	N	GNA	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student
HED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-12		
HED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-12		
HED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-12		
HED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-12		
HED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-15		
HED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1.		
HED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Educatl Policy, Leadership & Curriculum T	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HED	701	Higher Education Doctoral Proseminar	Students read and discuss recent writings on the sociology of higher education and explore research interests as well as identities as educational researchers. Visits to several types of higher education institutions in the state of Arizona to meet various program faculty who introduce their interests as researchers and practitioners. Learn better understanding of the challenges and promise of higher education as an academic field and of themselves as researchers and practitioners. Time also spent discussing the dissertation and the writing process.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		Pre-requisite: Higher and Postsecondary Education Doctoral student
HES	301	Adult Fitness I	Physical fitness and benefits of exercise. Emphasizes fitness assessment and designing an individualized assessment program. Y/E grade only. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		Credit is allowed for only HES 301, EPE 301,325, 494, HES 301or HES 494
HES	302	Adult Fitness II	Continuation of HES 301. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: HES 301 completed with Y grade; Credit is allowed for only EPE 301, 325, 494 or HES 302
HES	303	Adult Fitness III	Continuation of HES 302. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: HES 301 with Y grade; HES 302 with Y grade; Credit is allowed for only EPE 301, 325, 494 or HES 303
HES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
HHE	510	Theory of Healthcare Design	Theoretical problem solving and practical application strategies used in the design of healthcare and healing environments.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHE	524	Contemporary Issues in Healthcare Design	Address contemporaneous healthcare design issues and challenges and propose theoretical solutions through evidence-based research. Seminar.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: HHE 510 and HHE 540 with B or better
HHE	540	Healthcare Design Typologies: Case Studies	Industry best practices and benchmarks for various types of hospital facilities and healthcare systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	591	Seminar		Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
HHE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
HHS	100	Introduction to Holistic Health	Studies holistic health in a bio-psycho-socio-cultural context for health promotion and wellness.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HHS	300	Overview of Complementary Health Systems	Identifies and describes major approaches to complementary health models in the context of holistic health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
HIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HIN	494	Special Topics		N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75

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HON	171	The Human Event	Landmarks in the social and intellectual development of the human race, with emphasis on critical thinking and argumentative writing. Enrollment restricted to Barrett students.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisites: Honors students only; Total earned hours must be equal to or less than 75
HON	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-3		
HON	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Honors students only; Total earned hours must be equal to or less than 60
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	272	The Human Event: Humanities Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on the humanities.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & H	Pre-requisite: HON 171 with C or better
HON	273	The Human Event: Science Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on scientific thought.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L & H	Pre-requisites: HON 171 with C or better or currently enrolled
HON	273	The Human Event: Science Focus	Continuation of HON 171 from the Renaissance through the modern period, with emphasis on scientific thought.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L & H	Pre-requisites: HON 171 with C or better or currently enrolled
HON	274	The Human Event: Social Science Focus	Continuation of HON 171 from the Renaissance through the modern period; emphasizes the development of the social sciences.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or SB) & H	Pre-requisite: HON 171 with C or better
HON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		
HON	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		
HON	298	Honors Directed Study		N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		
HON	310	Justice and Law	Philosophical study of theories of justice in relation to law and morality. Required for Certificate in Philosophy, Politics, and Law.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	317	Philosophers, Poets, and Revolutionaries in Latin America	A transdisciplinary honors course that introduces students to major intellectual currents in three regions of Latin America.	N	DIS	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	371	Freedom and Authority	Historical overview of concepts of liberty, responsibility, and power in Western societies, emphasizing 18th- to 20th-century developments.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	372	French Cultural Influences	Explores textual and cultural artifacts formative of French culture as a series of contacts and conflicts with other peoples and lifeways.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	(L or HU) & G	
HON	373	Heroes, Heroines, and Villains	Examines concepts of heroic and villainous characteristics as expressed in the literature and visual arts of various cultures throughout history.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	374	Black and White Atlantic	Examines development (18th- to 20th-century) and cultural manifestations of Black/White race relations within the U.S. and between the U.S. and other nations.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & G	
HON	375	Science and the Modern Self	Concentrates on texts of the 19th and 20th centuries; explores how scientific discourse determines our notions of self.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	376	Law, Literature, and Life	Multidisciplinary approach to the subject of law, examining it through literature, history, and legal philosophy.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	
HON	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	L or HU	Pre-requisites: Honors students only
HON	378	Culture and Society in England, Ireland, and Scotland	Chronologically explores texts, events, and sites for historical and cultural impact on development of England, Ireland, Scotland, and their countries' relationships with each other.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & H & G	
HON	379	Romantics, Victorians, and Moderns	Examines the development and impact of various literatures, arts, and ideas in England, Ireland, and Scotland from the Romantic through the Modern period.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.	HU & G	
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisite: Barrett Honors student; Minimum 30 hours
HON	410	Philosophy, Politics, and Law	Topics in political and legal philosophy, including political authority, obligation and disobedience, the nature of crime and punishment. Required for Certificate in Philosophy, Politics, and Law.	N	SEM	N	OPT	Barrett, The Honors College	The Barrett Honors College	3.		
HON	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-12		Pre-requisite: Barrett Honors student
HON	485	Biosphere 2; Study Opportunity	For students participating in the ASU-sponsored program at Biosphere 2.	N	LEC	N	OPT	Barrett, The Honors College	The Barrett Honors College	1-18		
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisites: Honors students only
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	493	Honors Thesis	Includes the leadership seminar.	N	LEC	N	Z1	Barrett, The Honors College	The Barrett Honors College	1-6	L	Pre-requisites: Honors students only; Total earned hours must be greater than or equal to 75
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-4		Pre-requisites: Barrett Honors student; Minimum 45 hours
HON	497	Honors Colloquium		Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		
HON	497	Honors Colloquium		Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-6		Pre-requisite: Honors students only
HON	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Barrett, The Honors College	The Barrett Honors College	1-7		Pre-requisites: Honors students only
HON	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-3		
HON	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Barrett, The Honors College	The Barrett Honors College	1-15		
HPS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HPS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	311	Origins, Evolution, and Creation	History of opposition to evolutionary thinking with special reference to American creationism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	312	History of Women in Science and Medicine	Examines history of gender issues in Western science and medicine from Greco-Roman antiquity through the beginning of the 21st century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU or SB	
HPS	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU	Credit is allowed for only HPS 314 or PHI 314
HPS	322	History of Science	Development and application of scientific thinking from ancient times through the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H	
HPS	323	History of Science	Development and application of scientific thinking from the 18th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H	
HPS	325	History of Chinese Medicine	Explores developments of Chinese traditions dealing with the natural world, science, and medicine.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	HU & H & G	
HPS	330	History of Biology: Conflicts and Controversies	Focuses on 19th and 20th centuries, considering biology as a discipline. Evolution, problems of heredity, development, and cell theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	
HPS	331	History of Medicine	Scientific study of the human body, changing theories of disease, evolution of practical opinions on treatment, and the emerging institutionalization of medical practice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	H	Credit is allowed for only BIO 318 or HPS 331
HPS	332	The Darwinian Revolution	Origin, nature, and subsequent history of the ideas of Charles Darwin.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	336	Exploration and Science	500-year survey of exploration as a historical process and cultural activity of Western civilization, with emphasis on its links with modern science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SB & H	
HPS	340	Biology and Society	Explores interactions between biological sciences and society, e.g., biomedical, environmental, ethical, historical, legal, philosophical, political, and social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites:with C or better: BIO 187 (or both PLB 200 and PLB 201) and BIO 188. Students with credit for BIO 311, may not enroll in HPS 340
HPS	377	Nature in Context	Explores perspectives on the nature of nature, the history of ecology, and the rise of environmentalism.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	402	Technology, Society, and Human Values	Values that motivate humankind to create technology. Areas of conflict and resolution of conflict between values and technology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	410	Professional Values in Science	Considers issues related to values in science such as collaboration, finances, legal issues, media, mentoring, ownership of ideas, scientific integrity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	
HPS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HPS	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
HPS	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
HPS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
HPS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
HPS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
HPS	511	History of Science	Teaches crucial skills needed for graduate-level research in history of science, including (1) critical analysis of primary sources from different periods in the history of science and (2) critical analysis and familiarity with important trends in the secondary literature ("historiography of science").	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	512	Philosophy of Science	Serves as a graduate-level introduction to five central themes in philosophy of science, and as a means to begin to investigate new topics.	N	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	513	Decisions and Strategies	Explores topics in decision theory, game theory, social choice theory, epistemology, and related fields. May be repeated for credit.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		
HPS	516	History of Biology	Covers themes such as the voyages of discovery, systematics, and classification; morphology and embryology; Darwin and evolutionary biology; the rise of genetics; molecular and organismal approaches of post-WWII biology; recent history of biology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	550	Methods in History and Philosophy of Science	Introduces current methods in the practice of history and philosophy of science. Organized around major historiographical schools in the history of science such as social, institutional, intellectual, cultural, or feminist history of science and current concerns in philosophy of science such as causation, explanation, modeling, and epistemology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
HPS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
HPS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
HPS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
HPS	610	History and Philosophy of Science Lab	This course brings together graduate students, postdocs, and faculty members in HPS. Sessions include panel discussions of HPS topics from multiple perspectives, student-led discussions of important literature, practice presentations of papers for national meetings, discussion of dissertation and thesis ideas, and other activities that help to forge an active intellectual lab group.	N	DIS	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
HPS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	IND	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
HSD	501	Theories of Science and Democracy	Provides an in-depth introduction to theoretical perspectives on the role and place of science in democratic societies and democratic governance. Emphasizes how the ideas, ideologies, and practices of science are integrated into the design and implementation of government decision making, as well as how science both shapes and is shaped by the political organization and ordering of society. Pursues such questions in the context of U.S. politics, comparatively between the U.S. and Europe, and in emerging regimes of international governance.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	502	Analysis of Knowledge and Expertise in Policy Decisions	Focuses on the role of knowledge and expertise in political and policy decision making. Particular emphasis is placed on the analysis of knowledge systems (formalized institutional approaches to the production, validation, and use of knowledge and expertise in policy decision making), their modes of failure, and the design of approaches that may be able to prevent, avoid, or reduce the frequency of such failures.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	503	Analysis of Scientific and Technological Innovation	Examines the governance of science and technology through a focus on emerging technologies whose potential consequences in society are apparent only in anticipation and whose manifestations are still being shaped by local, domestic, and international institutions. These emerging technologies include nanotechnologies, synthetic biology, and other technologies associated with genetic modification, and information and cognitive science and neuro-technologies.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	504	Analysis of Large-Scale Socio-Technological Systems	Provide skills and methods to analyze the design and management of large-scale socio-technological systems and the societal impacts of large-scale technological systems change. Emphasizes assessing the intertwining of lives and livelihoods in large-scale technological systems and the risks and vulnerabilities associated with large-scale systems failures, including the effects of both technological failures and natural hazards.	N	SEM	N	OPT	Graduate College	Graduate College	3.		
HSD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-12		
HSD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
HSD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Graduate College	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HSD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Graduate College	Graduate College	1-12		
HSD	601	Core Seminar I	Interdisciplinary synthesis, theoretical foundations, and methods for humanistic and social science research on science and technology.	N	SEM	N	OPT	Graduate College	Graduate College	4.		
HSD	602	Core Seminar II	Interdisciplinary synthesis, theoretical foundations, and methods for humanistic and social science research on science and technology. Continuation of HSD 601.	N	SEM	N	OPT	Graduate College	Graduate College	4.		
HSD	610	Colloquium	Regular meeting for the entire HSDST community. Includes outside speakers, student and faculty member presentations, and community discussions. May be repeated for credit for a total of 6 hours.	N	SEM	Y	OPT	Graduate College	Graduate College	1.		
HSD	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Graduate College	Graduate College	1-12		
HSD	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	GRD	Graduate College	Graduate College	1-12		
HSD	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Graduate College	Graduate College	1-15		
HSD	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Graduate College	1.		
HSD	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Graduate College	1-15		
HSM	220	Health Care Organizations	Overview of United States healthcare delivery systems; financing, health policy, basic principles of budgeting, cost-benefit analysis, and resource management.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.	H	
HSM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HSM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	493	Honors Thesis		N	PRA	N	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-6		
HSM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HSM	502	Health Care Organization	Concepts, structures, functions, and values that characterize contemporary healthcare systems in the United States.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	505	Managerial Epidemiology I	Basic constructs and measures of epidemiology. Epidemiologic study designs. Potential impact of chance, bias, confounding, on an epidemiologic study. Causal criteria; levels of evidence in epidemiological studies, implications and limitations of statistical association.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		Pre-requisites: HSM 561 with D or better
HSM	512	Healthcare Economics	Economics of production and distribution of healthcare services, with special emphasis on the impact of regulation, competition, and economic incentives.	N	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	522	Health Sector Information Management	Information technology and knowledge management applications in the health sector, including care delivery and financing institutions and in the pharmaceutical and biotechnology industries.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	542	Healthcare Law	Legal aspects of healthcare delivery for hospital and health services administration. Legal responsibilities of the hospital administrator and staff.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	561	Biostatistics	Aspects of descriptive statistics and statistical inference most relevant to health issues, including data, rates, and confidence intervals.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		

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HSM	564	Health Care Finance	Overview of the acquisition, allocation, and management of financial resources by healthcare providers. Focuses on economic, financial, and accounting principles.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	565	Introduction to Health Policy	Current policy issues in health through concepts of access, cost, and quality; issues relating to disease trends and policy formulation.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	566	Managerial Epidemiology II	Basic principles of epidemiology, evaluation of etiology, natural history, intervention therapy, and disease prevention.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	575	Health Policy Management and Evaluation	Provides students with the analytical techniques and real world experience to manage the implementation and evaluation of changes in health policy.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	578	Managing Clinical Trials	Introduces students to theoretical and practical aspects of randomized controlled clinical trial methodology.	N	LEC	N	GRD	W.P. Carey School of Business	School of Health Management and Policy	3.		Pre-requisite: HSM 505
HSM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	589	Healthcare Strategic Management	Capstone assessment of current policies, problems, and controversies across the broad spectrum of health services administration.	N	LEC	N	OPT	W.P. Carey School of Business	School of Health Management and Policy	3.		
HSM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-12		
HSM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	School of Health Management and Policy	1-4		
HST	100	Global History to 1500	Surveys human origins; early civilizations in Africa and Eurasia; the ancient Mediterranean; the pre-Columbian Americas; the rise of Islam and Muslim empires; medieval Europe; the Indian sub-continent and imperial China, to 1500.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H & G	
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H & G	Credit is allowed for only HST 101 or SGS 111
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	103	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G & H	
HST	105	Slavic Civilization	Development of Slavic cultures and societies from medieval Byzantium to the present; introduces modern Eurasia.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	106	Asian Civilizations	Civilizations of China, Japan, and India from antiquity to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G & H	
HST	107	Asian Civilizations	Civilizations of China, Japan, India, and Southeast Asia from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	108	Introduction to Japan	Historical survey of the people, culture, politics, and economy of Japan, supplemented by audiovisual presentations. Intended for nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	

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HST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
HST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
HST	200	Historical Themes	General introduction to selected themes in history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	201	Historical Themes in Asia	General introduction to selected themes in Asian history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	202	Historical Themes in Europe	General introduction to selected themes in European history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	203	Historical Themes in Latin America	General introduction to selected themes in Latin American history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	204	Historical Themes in the US	General introduction to selected themes in United States history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	205	Historical Themes in Africa	General introduction to selected themes in African history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	210	American Social History	American society from the colonial period to the present. Ethnicity, race, age, and sex as factors in historical experience.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	211	American Jewish History	Chronological analysis of Jews and Judaism in American history and letters.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G	
HST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
HST	300	Historical Inquiry	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors. Course is organized thematically.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU or SB) & H	Pre-requisites: Must be a student in one of the following: Secondary Ed-History, Secondary Ed - Social Stds, History, History (Minor); Must have 45 or greater earned hours; Must have completed either ENG 102 or 105 with a grade of C or greater
HST	302	Studies in History	Specialized topics in history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	303	Studies in Asian History	Specialized topics in Asian history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	304	Studies in European History	Specialized topics in European history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	305	Studies in Latin American History	Specialized topics in Latin American history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	306	Studies in United States History	Specialized topics in United States history. Explores regions, cultures, and issues in history, and their interpretation in historical scholarship.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	307	Studies in African History	Specialized topics in African history. Explores countries, cultures, and issues in history, and their interpretation in historical scholarship. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	H	
HST	309	Exploration and Empire	Surveys European discovery, exploration, and imperialism in the early modern and modern periods.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
HST	310	Film as History	Surveys moving image media as recorder, object, and writer of history.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
HST	312	History of Women in Science and Medicine	Examines history of gender issues in Western science and medicine from Greco-Roman antiquity through the beginning of the 21st century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU or SB	

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HST	313	American Cultural History to 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the nation's colonial and early national periods.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	314	American Cultural History Since 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the age of industrialism to modern U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	315	Political History of the U S	American political history since independence, focusing post-1865. Evaluates major trends in issues, presidential leadership, elections, and state politics.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	316	20th-Century U.S. Foreign Relations	U.S. relations with foreign powers from the late 19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	319	U.S. Urban History to 1850	History of the city in American life from the colonial period to the mid-19th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	320	U.S. Urban History since 1850	History of the city in American life from the mid-19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	321	Constitutional Hist/US to 1865	Origin and development of the American constitutional system from colonial period through the Civil War.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	322	Constitutional History of the United States Since 1865	Development of the U.S. constitutional system from Reconstruction to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	323	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites:Completed ENG 101 & ENG 102 with a grade of C or better. If credit has been received in HST 323 or AFR 335, you may not enroll in TCL 335
HST	325	Immigration and Ethnicity in the United States	Origins, historical development, and future of a multiethnic society, 1492 to 2050.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	327	Women in US History 1600 to 1880	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	329	Women in 20th-Century US West	Examines how women of various cultures have contended for and shaped the U.S. West, including the West of imagination.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	H & C	
HST	330	Mexican Women in the U.S.	Overview of Chicana history from Mesoamerican origins to the present, focusing on Mexican women in the western U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H & C	
HST	331	Mexican American History to 1900	Mexican American history from pre-Hispanic origins to frontier journeys north through 19th-century life in the U.S. Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	332	Mexican American History Since 1900	Traces the formation of Mexican American communities across the rural and urban U.S. and examines 20th-century immigration from Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	333	African American History to 1865	The African American in American history, thought, and culture from slavery to 1865.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	334	African American History Since 1865	The African American in American history, thought, and culture from 1865 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	337	American Indian History to 1900	Cultural, economic, political, and social continuity and change of American Indian communities to 1900.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	338	American Indian History since 1900	Cultural, economic, political, and social continuity and change of American Indian communities from 1900 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C & H	
HST	341	U.S. West 19th Century	Social, political, and economic development of the trans-Mississippi West, beginning with the Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	342	US West 20th Century	Role of the western states in U.S. history since 1890 emphasizing politics, the environment, industry and labor, and ethnic minorities.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	

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HST	343	American Southwest	Development of the region from 1848 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	344	Arizona	Emergence of the state from early times to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	347	Ancient Greece	History and civilization of the Greek world from 650 BCE to the death of Alexander the Great.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	348	Rome	History and civilization of Rome from the beginning of the Republic to the end of the Empire.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	349	Early Middle Ages	Political, socioeconomic, and cultural developments of Western Europe from the 5th through 10th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	350	Later Middle Ages	Political, socioeconomic, and cultural developments of Western Europe from the 11th through 15th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	351	Renaissance Europe	Culture of the Renaissance in Italy and Northern Europe from the 14th to the early 16th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU or SB) & H	
HST	352	Europe's Reformations	Causes and implications of the major Protestant, Catholic, and Radical religious reformations in 16th- and 17th-century Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU or SB) & H	
HST	353	Old Regime in Europe	Society and culture of Europe during the 17th and 18th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	354	Revolutionary Europe	Political, social, economic, and intellectual currents in Europe from the French through the Russian Revolutions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	355	Total War & the Crisis of Modernity	Forces of change and instability in early 20th-century Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	356	Europe since 1945	Europe in its world setting since World War II, emphasizing major political and social issues from 1945 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	357	Historical Perspectives on Philosophy and Religion	Comprehensive investigation of central concepts in the philosophy of religion in the history of Western philosophy.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites:ENG 102, or ENG 105, or ENG 108, with a grade of C or better, or be currently enrolled
HST	358	Jewish History from the Bible to 1492	Continuity and change in political, legal, economic, and sociocultural history of the Jews from biblical through medieval times.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	359	Jewish History from 1492 to 1948	Jewish history from early modern through modern times, highlighting emancipation, enlightenment, and Jewish responses to modernity.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	361	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
HST	362	Sex and Society in Classical and Medieval Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and religious change in classical and medieval Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	363	Sex and Society in Early Modern Europe	Family life, sex roles, and marriage and their relationship to political, economic, and religious change in early modern Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	364	Sex and Society in Modern Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and social changes in modern Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	366	England to 1689	Political, economic, and social development of the English people to the late 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	367	Modern Britain	Political, economic, and social development in Britain from 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	368	Culture and Imagination in European History	Topics in European cultural and intellectual history.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	

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HST	370	Eastern Europe in Transition	Democratization, privatization, and identity transformations since the fall of communism in contemporary Eastern Europe and the former Soviet Union.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	371	Religion in Russia	Examines the history of the various religious traditions of Russia and the former USSR from an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
HST	372	Modern Middle East	Impact of the West and modernization upon Middle Eastern governments, religion, and society in the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	375	Colonial Latin America	Ancient civilization, exploration and conquerors, and colonial institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	376	Modern Latin America	Nationalistic development of the independent republics since 1821.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	377	Women in Colonial Latin America	History of women in colonial Latin America, cross-examining class, race, and gender relations in depth.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	H	
HST	378	Latin American Women: The National Period	Surveys the history of women, gender relations, and state policies in a broad continental setting, from independence to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	379	Rebellion & Revolution/So Amer	Political, economic, and social development of Spanish-speaking nations in South America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	380	Cultural History of Latin America	Main currents of thought, the outstanding thinkers, and their impact on 19th- and 20th-century Latin America. Cultural and institutional basis of Latin American life.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	381	South American Indian Religions	Introduces the sacred stories, ceremonies, and beliefs of Native South American peoples in their historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
HST	383	China	Political, economic, social, and cultural history of the Chinese people from early times to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	384	China	Political, economic, social, and cultural history of the Chinese people from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	385	History of Chinese Medicine	Explores developments of Chinese traditions dealing with the natural world, science, and medicine.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H & G	
HST	386	Interpreting China's Classics	Study of selected Confucian and/or Taoist classics and ways they have been read in both Asian and Western scholarship.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
HST	387	Japan	Political, economic, social, and cultural history of the Japanese people from early times to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	388	Japan	Political, economic, social, and cultural history of the Japanese people from the 17th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	389	Japan Society and Values/Premod	Effects of economic and social transitions on personal and social values as reflected in the dramatizations of contemporary events.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	391	Modern Southeast Asia	Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Singapore, Brunei, Indonesia, and Philippines since 1750: imperialism, revolution, and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
HST	405	Colonial American History to 1763	Political, economic, social, and cultural history of the colonial era. Concentrates on English colonies, with some consideration of Spanish, French, and other colonial regions in North America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	406	American Revolution/1763-1789	Causes, course, and consequences of the American Revolution culminating in the ratification of the Constitution.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	407	Early U.S. Republic/1789-1850	Political, social, economic, and cultural development of the United States from the Revolution to 1850.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	

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HST	408	Civil War and Reconstruction	Explores the causes, conduct, and consequences of the American Civil War, concentrating on the years 1848 to 1877.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H	
HST	409	Emergence Modern U.S. 1877-1918	Triumph of modern political, social, and economic structures and values, 1877-1918; role of region, religion, race, and ethnicity.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	410	Modern U.S., 1918 to 1945	1920s boom and the crash, the Depression and the New Deal response. The Second World War at home and abroad.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	411	Postwar U.S., 1945-1973	Cold War, prosperity, reform, and immense social and political change in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	412	Contemporary U.S., 1973- Present	End of the Cold War, political crises, and cultural transformations in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	414	The Modern U.S. Economy	Origins of 19th-century slavery and industrialization; 20th-century crisis and regulation: political economy of an advanced capitalist democracy.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	415	Unequal Sisters/Women-Pol/Cult	Examines race, ethnic, and class differences among women, focusing on the political and cultural experiences of women in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or SB) & H & C	
HST	417	Topics in Mexican American History	Focuses on specific topics in Mexican American history including immigration, civil rights, the Chicano Movement, union activism, and regional and generational differences.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H & C	
HST	423	The Tudor Monarchy	Political, cultural, and social foundations of 16th-century England.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	424	Stuart Transform of England	Political, social, economic, and cultural developments in 17th-century England.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	426	The British Empire	British imperialism and colonialism in Africa, the Americas, Asia, and the South Pacific.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	427	French Revolution/Napoleonic Era	Conditions in Pre-Revolutionary and Revolutionary France; organization of France under Napoleon and impact of French changes upon Europe.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	428	Modern France	Social, political, economic, and cultural transformations of French society, 1815-present. Impact of industrialization, war, and revolution on people's lives.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	429	Modern Germany	Germany since 1871.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	430	Hitler: Man and Legend	Biographical approach to the German Third Reich emphasizing nature of Nazi regime, sociocultural issues, World War II, and historiography.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	431	Eastern Europe and the Balkans, Pre-1914	Empire and nation in Eastern Europe and the Balkans before World War I, emphasizing Hapsburg and Ottoman lands.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	432	East Euro/ the Balkans-20 Cent	Politics and culture in Eastern Europe and the Balkans from World War I to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	435	The Russian Empire	Development of Russian imperial institutions and civil society from the 17th to the early 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	436	The Soviet Experiment	Communist revolutionaries' rule of Russia, focusing on utopian culture, Stalinist terror, heroism in war, and the breakup of the former USSR.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	437	Spain through the Golden Age	Cultural, economic, political, and social development of Spain from antiquity to the late 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	438	Modern Spain	Cultural, economic, political, and social development of modern Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G & H	
HST	443	The United States & Latin America	Latin American struggle for diplomatic recognition, attempts at political union, participation in international organizations since 1810, and relations between the United States and Latin America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	

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HST	445	20th-Century Cuba	History of Cuba from colonial era to formation of the early republic; political, economic, social development in late 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	446	Colonial Mexico	Political, economic, social, and cultural developments from pre-Columbian times to 1810.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	447	Modern Mexico	Political, economic, social, and cultural developments from 1810 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & H	
HST	451	Chinese Cultural History	China's classics in translation studied both for their intrinsic ideas and for the origins of Chinese thought.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & H	
HST	452	Chinese Cultural History	Evolution of Confucian thought, its synthesis with Taoism and Buddhism, and modern reactions against, and uses of, Confucian traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	453	The People's Republic of China	Analyzes major political, social, economic, and intellectual trends in China since the founding of the People's Republic in 1949.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	455	The United States and Japan	Cultural, political, and economic relations in the 19th and 20th centuries. Emphasizes post-World War II period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	456	The Vietnam War	Intersection of American and Asian histories in Vietnam, viewed from as many sides as possible.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	SB & G & H	
HST	465	Women in Europe, 1750 to Present	European women's diverse religious, ethnic, national, and economic roles in society, culture, and politics, 1750 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU or SB) & H	
HST	480	Methods of Teaching History: Classroom Resources	Methods in instruction, organization, and presentation of the subject matter of history and closely allied fields.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
HST	481	Methods of Teaching History: Community Resources	Identify community-based resources for teaching history, work with resources, and learn how to integrate them into the secondary classroom.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
HST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		Pre-requisites: Must be an Honors student
HST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6	L	Pre-requisites: Must be an Honors student
HST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
HST	496	South, Southeast, and East Asia in the Global Matrix	In this capstone seminar, majors in Asia Studies take up broad comparative themes, integrating knowledge from the major's three tracks (East, South, and Southeast Asia) and executing a research project culminating in a major paper. Course themes may vary by instructor.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: For South Asia track: REL 294, or SGS 294 (topic: Intro to South Asia) with C or better; for SE Asia track: HST 240, REL240, ASB 240, GCU 240, POS 240, or SGS 240 with C or better
HST	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		
HST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-7	L	Pre-requisites: HST 194 completed or HIS 300, HST 300 or HST 200 with a C or better or currently enrolled; History student with senior standing or Education-History student with greater than 75 earned hours
HST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		
HST	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student

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HST	502	Public History Methodology	Introduces historical research methodologies, techniques, and strategies used by public historians. Readings, short papers, and guest speakers. Required for students in the public history concentration.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	511	History of Science	Teaches crucial skills needed for graduate-level research in history of science, including (1) critical analysis of primary sources from different periods in the history of science and (2) critical analysis and familiarity with important trends in the secondary literature ("historiography of science").	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	512	West Civil to the Enlightenmnt	Systematically examines various interpretations of Western civilization from the ancient Middle Eastern civilizations to the European Enlightenment.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	514	Historians of the U.S.	Study of the history of American historical writing from the early colonial days to the 20th century.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	515	Studies in Historiography	Methods and theories of writers of history.	N	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	516	History of Biology	Covers themes such as the voyages of discovery, systematics, and classification; morphology and embryology; Darwin and evolutionary biology; the rise of genetics; molecular and organismal approaches of post-WWII biology; recent history of biology.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
HST	525	Historical Resource Management	Identification, documentation, and interpretation of historic period buildings, sites, and districts. Emphasizes interdisciplinary efforts among historians, architects, and anthropologists.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	526	Historians and Preservation	Preparation of historians for public and private historic preservation programs.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be either MA or PHD student in History.
HST	527	Historical Administration	Preparation of historians in administration of archives and historical sites, museums, societies, and offices in government agencies.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	532	Community History	Techniques and methods of community history emphasizing local resources. Required for community history option.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	551	Comparative Histories--War and Revolution	Comparative field course of the themes of war and revolution.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be MA or PHD student in History.
HST	554	Population-Ethnicity/Econ/Migr	Comparative course that explores the impact of social, cultural, or economic changes in the population.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be MA or PHD student in History.
HST	555	Comparative Historical Topics	Analyzes a variety of specific social, political, cultural, and intellectual topics.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: History MA or PHD student
HST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		Pre-requisite: History MA or PHD student
HST	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		Pre-requisite: History MA or PHD student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		Pre-requisite: History MA or PHD student
HST	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		Pre-requisite: History MA or PHD student
HST	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
HST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: History MA or PHD student
HST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		Pre-requisite: History MA or PHD student
HST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		Pre-requisite: History MA or PHD student
HST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		Pre-requisite: History MA or PHD student
HST	100	Global History to 1500	Surveys human origins; early civilizations in Africa and Eurasia; the ancient Mediterranean; the pre-Columbian Americas; the rise of Islam and Muslim empires; medieval Europe; the Indian sub-continent and imperial China, to 1500.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H & G	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H & G	
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	103	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & G & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HST	300	Historical Inquiry	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors. Course is organized thematically.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU or SB) & H	
HST	313	American Cultural History to 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the nation's colonial and early national periods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	314	American Cultural History Since 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the age of industrialism to modern U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & H	
HST	319	U.S. Urban History to 1850	History of the city in American life from the colonial period to the mid-19th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	320	U.S. Urban History since 1850	History of the city in American life from the mid-19th century to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	322	Constitutional History of the United States Since 1865	Development of the U.S. constitutional system from Reconstruction to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	334	African American History Since 1865	The African American in American history, thought, and culture from 1865 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & C & H	
HST	337	American Indian History to 1900	Cultural, economic, political, and social continuity and change of American Indian communities to 1900.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & C & H	
HST	338	American Indian History since 1900	Cultural, economic, political, and social continuity and change of American Indian communities from 1900 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & C & H	
HST	340	American Military History	Studies the role of the military in American life during war and peace from colonial times to the present day.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	341	U.S. West 19th Century	Social, political, and economic development of the trans-Mississippi West, beginning with the Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	352	Europe's Reformations	Causes and implications of the major Protestant, Catholic, and Radical religious reformations in 16th- and 17th-century Europe.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU or SB) & H	
HST	355	Total War & the Crisis of Modernity	Forces of change and instability in early 20th-century Europe.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G & H	
HST	363	Sex and Society in Early Modern Europe	Family life, sex roles, and marriage and their relationship to political, economic, and religious change in early modern Europe.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & H	
HST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HST	400	Topics in American Historical Periods	Focuses on specific periods in American history. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HST	401	Topics in Comparative History	Comparative history with reference to one or more themes.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HST	402	Topics in European Regional and National History	Focuses on the history of specific geographic regions or nations in Europe.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HST	406	American Revolution/1763-1789	Causes, course, and consequences of the American Revolution culminating in the ratification of the Constitution.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	408	Civil War and Reconstruction	Explores the causes, conduct, and consequences of the American Civil War, concentrating on the years 1848 to 1877.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & H	
HST	413	Contemporary America	The United States from 1945 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & H	
HST	415	Unequal Sisters/Women-Pol/Cult	Examines race, ethnic, and class differences among women, focusing on the political and cultural experiences of women in the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & H & C	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	418	The Hispanic Southwest	Development of the Southwest in the Spanish and Mexican periods to 1848.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
HST	419	20th Century Chicano/a History	Historical development of the Chicano community in the 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
HST	437	Spain through the Golden Age	Cultural, economic, political, and social development of Spain from antiquity to the late 17th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & H	
HST	447	Modern Mexico	Political, economic, social, and cultural developments from 1810 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & H	
HST	454	History of Genocide	Examines the individuals and institutions responsible for the most infamous episodes of state-sanctioned violence in the 20th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G & H	
HST	464	Women in Europe to 1750	European women's diverse religious, ethnic, national and economic roles in society, culture, and politics in the pre-modern period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	Pre-requisites: ENG 102 or 105 with C or better; HIS 101 or 300 with C or better
HST	465	Women in Europe, 1750 to Present	European women's diverse religious, ethnic, national, and economic roles in society, culture, and politics, 1750 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU or SB) & H	
HST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HST	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
HST	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	
HST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7	L	Pre-requisites: HST 194 completed or HIS 300, HST 300 or HST 200 with a C or better or currently enrolled; History student with senior standing or Education-History student with greater than 75 earned hours
HST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
HST	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
HST	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-15		
HST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
HST	100	Global History to 1500	Surveys human origins; early civilizations in Africa and Eurasia; the ancient Mediterranean; the pre-Columbian Americas; the rise of Islam and Muslim empires; medieval Europe; the Indian sub-continent and imperial China, to 1500.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
HST	101	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H & G	
HST	102	Western Civilization	Origins and development of Western societies and institutions from the ancient world through the Middle Ages.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	103	Western Civilization	Traces origin and development of Western societies and institutions from the Renaissance and Reformation through Age of Enlightenment.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	104	Western Civilization	Traces origin and development of Western societies and institutions from the French Revolution to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G & H	

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HST	107	Asian Civilizations	Civilizations of China, Japan, India, and Southeast Asia from the 17th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
HST	109	United States to 1865	Growth of the Republic from colonial times through the Civil War period.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	110	United States Since 1865	Growth of the Republic from the Civil War to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	203	Historical Themes in Latin America	General introduction to selected themes in Latin American history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	204	Historical Themes in the US	General introduction to selected themes in United States history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	205	Historical Themes in Africa	General introduction to selected themes in African history. May be repeated for credit when topics vary.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HST	210	American Social History	American society from the colonial period to the present. Ethnicity, race, age, and sex as factors in historical experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	300	Historical Inquiry	Introduces the methodological and theoretical tools of history as a scholarly discipline for History majors. Course is organized thematically.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU or SB) & H	Pre-requisites: Must be a student in one of the following: Secondary Ed-History, Secondary Ed - Social Stds, History, History (Minor); Must have 45 or greater earned hours; Must have completed either ENG 102 or 105 with a grade of C or greater
HST	309	Exploration and Empire	Surveys European discovery, exploration, and imperialism in the early modern and modern periods.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
HST	313	American Cultural History to 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the nation's colonial and early national periods.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	314	American Cultural History Since 1865	Culture, including ideas, ideals, the arts, and social and economic standards, from the age of industrialism to modern U.S.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & H	
HST	315	Political History of the U S	American political history since independence, focusing post-1865. Evaluates major trends in issues, presidential leadership, elections, and state politics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	325	Immigration and Ethnicity in the United States	Origins, historical development, and future of a multiethnic society, 1492 to 2050.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H & C	
HST	327	Women in US History 1600 to 1880	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	328	Women in US History, 1880-1980	Examines American women of diverse racial, religious, and ethnic groups and classes; focuses on changing definitions of women's roles.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & C & H	
HST	341	U.S. West 19th Century	Social, political, and economic development of the trans-Mississippi West, beginning with the Louisiana Purchase and ending in 1900.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	342	US West 20th Century	Role of the western states in U.S. history since 1890 emphasizing politics, the environment, industry and labor, and ethnic minorities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	343	American Southwest	Development of the region from 1848 to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	344	Arizona	Emergence of the state from early times to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
HST	361	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
HST	364	Sex and Society in Modern Europe	Family life, sex roles, and marriage, and their relationship to political, economic, and social changes in modern Europe.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	368	Culture and Imagination in European History	Topics in European cultural and intellectual history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
HST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
HST	408	Civil War and Reconstruction	Explores the causes, conduct, and consequences of the American Civil War, concentrating on the years 1848 to 1877.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H	
HST	444	Latin American Independence	History of independence movements throughout the Western hemisphere from the late 18th century until the mid-19th century.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G & H	Pre-requisite: ENG 102, 105, 108 or 112 with C or better
HST	448	Mexican/U.S. Border	Analyzes the evolution of the Mexican/U.S. border region from the mid-19th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, ENG 105, ENG108, or ENG 112 with a C or better
HST	449	Mexican Immigration to the U.S.	Assesses the evolution of immigration and emigration public policy since the mid-19th century. Seeks to contextualize the relationship between immigration and other elemental nation-state issues as the economy, education, identify, and civil rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & H & C	Pre-requisite: ENG 102, 105, 108 or 112 with C or better
HST	450	Postmodern Mexico	Challenges historical myths about the evolution of the nation state and calls into question that globalization and transnationalism are only recent phenomena of the postmodern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G & H	Pre-requisite: ENG 102, 105, 108 or 112 with C or better
HST	456	The Vietnam War	Intersection of American and Asian histories in Vietnam, viewed from as many sides as possible.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
HST	480	Methods of Teaching History: Classroom Resources	Methods in instruction, organization, and presentation of the subject matter of history and closely allied fields.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
HST	481	Methods of Teaching History: Community Resources	Identify community-based resources for teaching history, work with resources, and learn how to integrate them into the secondary classroom.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Admission to Professional Teacher Preparation Program

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
HST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7	L	Pre-requisites: HST 194 completed or HIS 300, HST 300 or HST 200 with a C or better or currently enrolled; History student with senior standing or Education-History student with greater than 75 earned hours
HST	530	Methods of Teaching Secondary History	Emphasizes educational methods of planning, teaching, and assessing appropriate content in the instruction of secondary history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 430, may not enroll in HTY 530
HST	535	Teaching Secondary Social Studies	Emphasizes secondary educational methods of planning, teaching, and assessing appropriate content in the instruction of social studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for HTY 435, may not enroll in HTY 535
HTY	220	Introduction to Digital Archives	Familiarizes students with the uses and challenges of digital archives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HTY	230	Introduction to Corporate Archives	Covers principles and techniques for creating and managing corporate archives.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
HTY	246	Introduction to Researching Family History	Introduces research methods in family history.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102, 105, 108 or 112 with C or better; Credit is allowed for only ENH 246 or HTY 246
HTY	310	History of Technology	Examines the history of technology within social, cultural, political, and economic contexts and the critical relationship between society and technology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	H	
HTY	312	History of Science	Examines the beginnings of modern science and traces its development and impact to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	314	History of Computing	Examines the history of computing, including the development of computing devices, and the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	316	History of Engineering	The history of engineering from the earliest record to modern times, examining the social, cultural, and economic effects on society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & G	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	320	History of American Agriculture	Overview of the history of agriculture in America from pre-contact to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	325	History of American Business	The history of American business, including its evolution, structure, and values.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108, or ENG 112 with a grade of C or better
HTY	326	History of Landscape Design	Examines the history of design traditions and landscaping from the ancient world to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisites: ENG 102, ENG 105, or ENG 108 with a grade of C or better
HTY	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102,ENG 105, ENG 108, or ENG 112, with a C or better
HTY	330	History of Printing and Media	Examines the history of printing, books, and the development of modern forms of media.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	334	Archival Preservation and Digital Media	Covers the preservation of digital archival data.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:HTY 220, or HTY 230 with a grade of C or better
HTY	336	Editing Historical Documents	Covers the principles and techniques for editing historical document collections.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108, or ENG 112, with a grade of C or better, and HST 300 or HTY 301 with a C or better
HTY	346	Intermediate Family History Research	How to locate records, analyze and interpret evidence, and write a family history narrative.	N	RSC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENH 246 or HTY 246 with a C or better or currently enrolled
HTY	350	Environmental History	Examines the interaction between humans and the natural world in the United States from the late 19th century to the present.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	360	Women and Science	Examines the role of women in the sciences, focusing on their achievements, challenges, barriers, and persistence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	370	History of Collecting	Historic overview of the practice of collecting art, artifacts, specimens, memorabilia. Includes classification and display systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	374	Western Rivers	Examines the relation between rivers, culture, and environment in the American West.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	410	Historic Preservation	Major topics of historic preservation, such as legislation, education. Includes principles of preservation and interpretation of artifacts and structures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:ENG 102, ENG 105, ENG108, or ENG 112 with a C or better; AND HST 300 with a C or better
HTY	450	History of Ecology and Conservation	Examines the historical development of ecology and conservation movements in the United States and the world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L & H	Pre-requisites:ENG 102, 105, 108 or ENG 112 with a grade of C or better
HTY	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ENG 102 or its equivalent with a C or better or currently enrolled
HTY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		Pre-requisites: HTY 301 with C or better or currently enrolled; Senior academic level
HUD	161	Graphic Communication	Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Development student
HUD	201	Introduction to Housing and Urban Development	Perspectives and issues concerning HUD. Guest lectures by interdisciplinary faculty and private, public, and non-profit practitioners.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	301	Housing and Community Design and Development	Single- and multifamily housing, residential neighborhoods, and planned communities. Affordability in owner-occupied and rental housing. First-time, move-up, and adult markets.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		

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HUD	302	Housing Production Process	Development feasibility analysis, finance, contracts, land acquisition, community and permit presentation and negotiation, scheduling, cost control, marketing, and sales.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	361	Housing and Urban Development Studio I: Residential Design and Development	Affordable residential design, development, and production process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; Passed Milestone; Co-requisites: HUD 301; HUD 363
HUD	362	Housing and Urban Development Studio II: Community Design and Development	Neighborhood and new community design and development process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; HUD 361 with C or better; Co-requisite: HUD 302; HUD 364; HUD 403
HUD	363	Housing and Urban Development Seminar I: Residential Design and Development	Affordable residential design, development, and production process.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; Co-requisites: HUD 301; HUD 361
HUD	364	Housing and Urban Development Seminar II: Community Design and Development	Neighborhood and new community design and development process.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; Co-requisites: HUD 302; HUD 362; HUD 403
HUD	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
HUD	401	Assisted Housing	Publicly subsidized and nonprofit housing. Policy, implementation, and administration. FHA, Section 8, FmHA, projects and scatter site, and tax considerations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	402	Community Revitalization: Problems and Strategies	Public policy and strategies for neighborhood revitalization and community renewal. Preservation and adaptive reuse, gentrification, neighborhood safety, and related socioeconomic concerns.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	403	Advanced Topics in Housing and Urban Development	Varying topics, such as manufactured housing, homelessness, mortgage and finance in housing, housing abroad, marketing housing, and sustainable community development.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
HUD	461	Housing and Urban Development Studio III	Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction, cost management, and marketing.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; HUD 362 with C or better; Co-requisites: HUD 401; HUD 463
HUD	462	Housing and Urban Development Studio IV: Neighborhood Revitalization Process	Housing rehabilitation, neighborhood revitalization, and urban infill. CDBG, empowerment-enterprise zoning, code enforcement, citizen participation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	2.		Pre-requisites: Housing & Community Developmnt student; HUD 461 with C or better; Co-requisites: HUD 402; HUD 464
HUD	463	Housing/Urban Dev Seminar III	Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction and cost management, and marketing.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; HUD 302 and HUD 364 with C or better; Co-requisites: HUD 401; HUD 461
HUD	464	Housing and Urban Development Seminar IV: Neighborhood Revitalization Process	Housing rehabilitation, neighborhood revitalization, and urban infill. CDBG, empowerment-enterprise zoning, code enforcement, citizen participation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Housing & Community Developmnt student; Co-requisites: HUD 402; HUD 462
HUD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisite: Housing & Urban Developmnt BSD student
HUD	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
HUD	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
HUD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
HUD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
HUM	502	Writing Cultures	Theories and methods of representing Western and non-Western cultures in literature, history, ethnography, and pictorial media.	N	LEC	N	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		
HUM	503	Research and Writing in the Humanities	Systematic training in humanistic research and writing with particular attention to the interdisciplinary study of culture.	N	SEM	N	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	513	Interpretation of Cultures	Methodologies and comparative theories for the study of relationships among various aspects of culture, the history of ideas, and the arts. May be repeated for a total of 6 semester hours when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	3.		Pre-requisite: Must be a Graduate student.
HUM	530	Pop Culture America		Y	LEC	Y	CNV	Liberal Arts and Sciences	Division of Humanities T	3.		

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HUM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Division of Humanities T	1.		
HUM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Division of Humanities T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking)
HUM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Division of Humanities T	1-12		
HUM	413	Comedy: Meaning and Form		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IA	102	Wood Turning		Y	LEC	Y	CNV	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		
IAP	101	Art, Artist, and Culture	Provides an approach to art, creativity, and culture in global, historical, and contemporary contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAP	102	Foundations I: Performance Techniques and Composition	Focuses on practice-based studies of contemporary presentational strategies and techniques.	N	STO	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	103	Foundations I: Interdisciplinary Digital Media	Digital media studies and application of contemporary artists, processes, and presentation practices in interdisciplinary arts.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	104	Foundations I: Fundamentals of Sound Art	Investigates late 20th- and 21st-century sound art and our relationship with it.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	105	Foundations I: Fundamentals of Interdisciplinary Art	Focuses on contemporary aesthetic concepts and language for interdisciplinary arts application.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	CS	
IAP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	201	Introduction to Interdisciplinary Arts	Considers interdisciplinarity in practical terms in all art forms. Also considers antecedents and cross-cultural issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAP	202	Perspectives on Interdisciplinary Arts and Performance	Social, cultural, and historical examination of interdisciplinary art and performance and a survey of current interdisciplinary work and approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	301	Energetic Systems of Art: Collaboration in the Arts	Identifies and explores the energetic systems at work in the creation, performance, and perception of art.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	302	Cross-Cultural Perspectives on the Arts	Social and cultural perspectives of art and performance through a survey of historical and contemporary attitudes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	303	Artists and the Contemporary American Experience	Explores the life of the contemporary American artist with respect to individuality, pluralism, gender, race, ethnicity, and regionalism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	304	Traditions of the Avant-Garde and Experimental Art	Surveys 20th-century art movements and isms, including futurism, dada, surrealism, constructivism, realism, the Bauhaus, abstract expressionism, minimalism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	305	20th and 21st Century Art, Performance, and Media	Surveys artists, movements, and trends in the arts with an emphasis on interdisciplinary performance, media, and technology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	306	Extended Traditions in Drawing	Explores alternative methods of rendering the drawn image. Emphasizes incorporating other art forms to inform students' individual work.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	307	Art and War	Global interdisciplinary survey of the range of work created by artists in response to war, through time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	

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IAP	310	Women in Art	Cultural, historical, and social issues relating to the seeming scarcity of women artists and changing social contexts for women artists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	321	Music Composition I	Study and implementation of specific compositional theories and procedures. May be repeated for credit when topics vary. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: mus be in Plan ASIAPBA
IAP	322	Multitrack Digital Recording	Introduces students to theory and practice of Musical Instrument Digital Interface (MIDI) technology.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Pan ASIAPBA
IAP	323	Music and the Visual Arts	Histories and theories of music and visual arts with emphasis on convergences within 20th-century avant-garde traditions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	324	The Voice and Performance	Involves all aspects of the human voice, including research, creation, and performance.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	325	Sound Performance: Exploring Alternative Performance Groups	Utilizes innovative sound ensembles to explore all aspects of sound and its place in various art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	331	Performance, Acting, and the Individual	Explores the concepts of the self, the subject, and the author as each pertains to the solo artist.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	332	Technical Production for Interdisciplinary Arts	Develops basic technical knowledge and application of fundamental stagecraft techniques used in the creation and presentation of performance works. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	333	Directing for Performance	Explores various strategies for performance. Emphasizes nontraditional staging and performance.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan ASIAPBA
IAP	334	Conceptual Development in the Arts	Conceptual development processes in the arts from initial idea to formal project proposals, grants, and production plans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Interdisciplinary Arts and Performance student
IAP	335	Vocalization and Movement	Study, application, and coordination of vocal projection techniques with bodily movement competencies in presenting original and existing contemporary performance works.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	347	Movement in Education	Theory and practice of teaching dance and creative movement in schools, K-12. Open to all students.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	351	Concept, Image, and Text	The generation of images and metaphors using various media and visual stimuli.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	352	Seeing and Drawing	Develops drawing and seeing skills that are important not only to visual arts but also to music, dance, and theatre.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	354	Visual Representation	Explores materials, processes, and aesthetic concepts of art making through various media with readings on cultural perspectives and contemporary theory.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Interdisciplinary Arts and Performance student
IAP	355	Illusion and Vision	Inquiry into 2-D surfaces for visual representation and personal expression; includes readings on color theory, visual perception, and historical/cultural patterns.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	356	Spatial Impressions	Investigates 3-D forms, the processes and concepts of physicality, and the environment with readings on spatial perception and cultural objects. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN ASIAPBA
IAP	360	IAP Laboratory	Provides instructor-student contact time focusing on the technical instruction of media and technology applications.	Y	LAB	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1.		
IAP	361	Digital Editing and Media Literacy	Investigates the approaches used in digital editing with a focus on interactivity, graphics, audio, and desktop video. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	CS	Pre-requisites: must be in PLAN ASIAPBA, or ASACOBS
IAP	363	Sound, Image, and Media	Interdisciplinary arts projects for experimental approaches to relating sound and visual image, accompanied by survey of historical and contemporary material. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	364	Documentaries	Media arts projects exploring new and experimental forms of visualization based upon an interdisciplinary survey of historical and contemporary examples. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN ASIAPBA
IAP	365	Digital Interactivity	Combines graphics, video, and animation with digital authoring tools for creation of interactive multimedia Web sites. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in Plan: ASIAPBA OR Plan: ASACOBS
IAP	368	Digital Graphic Technologies	Employs technology used in contemporary graphic designs to design concepts and techniques for modeling and representation applications.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	371	Verbal Art	Examines varieties of verbal art in everyday life, literature, oral and literate cultures. Considers diverse cultural forms and values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	373	The Critical Artist	Focuses on artists' critical thought, theorizing, and representation of art across disciplines and genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	421	Composition: Process, Technique, and Style II	Advanced study of specific compositional theories and procedures; in-depth analysis of individual work. Fee.	N	LEL	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN: ASIAPBA
IAP	422	Contemporary Orchestration Practices	Traditional and experimental scoring techniques for small and large ensembles using MIDI technology, digital samplers, and traditional instruments. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IAP	431	Perspectives on Performance and Acting	Focuses on the interaction of the performer with media, alternative stagings, and collaboration with other performers.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: must be in PLAN: ASIAPBA
IAP	433	Directing Workshop	Applies experimental directorial techniques to presentations and deconstruction of classical works including European and cross-cultural traditions.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN: ASIAPBA
IAP	434	Production Laboratory	Develops original scripts into showcase productions. Students function as theatrical ensemble, participate in all phases of performance and production values. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites:Must be in PLAN:ASIAPBA
IAP	441	Movement for Performance	Explores the relationship of movement as it relates to performance, both historically and cross-culturally.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN:ASIAPBA
IAP	442	Movement and Music	Surveys ways artists have brought together movement and music in artistic creations in various disciplinary and interdisciplinary contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	452	Elements of Painting	Develops painting skills and personal artistic vision through projects stimulated by other art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	454	New Directions in Painting	Develops painting skills and personal artistic vision through projects stimulated by other art forms. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	457	Urban Narrative	Conceptually based studio focusing on artists' voices in contemporary urban environment with readings on spatial perception and cultural objects. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	464	Media and Diversity	Interdisciplinary art projects exploring identity, perception, and technologies from a basis of class, race, ethnicity, gender, sexuality, and ecology.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	465	Media Technologies and the Arts	Practical explorations of media arts interrelated with cultures, society, and technology, addressed through readings, discussion, research, and student arts projects.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	466	Digital Interactivity, Advanced	Advanced multimedia authoring skills for creation of interactive works in DVD, CD ROM, and other media formats. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN:ASIAPBA OR PLAN:ASACOBS
IAP	467	Acoustic Ecology	Investigations into the relationship between audio art and ecology; covers field recording, oral histories, digital editing, and designing audio Web site and databases. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	468	Digital Graphic Applications	Targeting, planning, design, authoring, development, and presentation of professional digital media graphics for Internet and print.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Must be in PLAN:ASIAPBA OR PLAN: ASACOBS
IAP	469	Advanced Audio Production	Engages advanced media students in the technical, logistical, and aesthetic concerns specific to audio in all forms of digital media. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	471	Language, Culture, and Performance	In-depth examination of language in myth, poetry, social and aesthetic performance genres.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	472	Theories of Arts and Performance	Key texts, thinkers, concepts, and approaches to the arts and performance.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAP	473	Aesthetic Research	Investigates how artists, in all disciplines and from different historical periods, conduct or participate in research.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	474	Art and Film	Focuses on film as an art form in relation to the arts through aesthetics, cinematic theory, period study.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
IAP	480	Senior Project	Capstone course. Students develop an exit project for the IAP degree under the guidance of an advisor. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3-6		
IAP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAP	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAP	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
IAP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
IAP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IAS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	220	Psychology, Multicultural Narratives, and Religion	Examines contemporary multicultural life narratives that explore diversity in America and the authors' constructions of psychological identity and religious values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: ENG 101 or 105 with C or better
IAS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAS	300	Adult Career Development	Analysis of sociological and economic factors of 21st-century work environments, integrated with a psychological understanding of adult development. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or SB	Pre-requisites: ENG 101 or 105 with C of better or Applied Science student
IAS	305	Work and Identity	Explores the relationship between work and identity, as well as the search for meaning in work across generations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	
IAS	310	Women in Art	Cultural, historical, and social issues relating to the seeming scarcity of women artists and changing social contexts for women artists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater, or be currently enrolled, or co-enrolled with IAS310.
IAS	324	Existential Ethics	Ethical aspects of theistic and atheistic accounts of existentialist philosophy. Freedom and responsibility and their significance in human experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	340	Bioethics	Philosophical exploration of ethical issues in healthcare delivery and the life sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IAS	401	Sacred Scriptures and Social Choices	Examines relationships among contemporary moral issues and the sacred scriptures to support choices at individual, group, and public levels.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
IAS	406	Moral Dilemmas	Philosophical analysis of moral dilemmas arising in professional and public settings. Ethical decision making in business, educational, human service, and scientific communities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better. Credit is allowed for only IAS 406 or PHI 406
IAS	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
IAS	408	Feminist Ethics	Philosophical exploration of the theoretical and practical aspects of ethical issues affecting women from diverse feminist viewpoints.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	409	Eco-Community Ethics	Traces human interaction with the Earth from hunters and gatherers to the present day, examining groups who have lived within ecological constraints and limits.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
IAS	410	Evolution of Ideas	Investigates ideas (paradigms) and revolutions (paradigm shifts). Examines several topics from perspectives of science, arts, humanities, social sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better
IAS	411	History and Philosophy of Mathematics	Examines nature of mathematics from origins to present, revealed by its history and philosophy. Strong background in mathematics not required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	Credit is allowed for only IAS 411 or MAT 411
IAS	415	Life in the Universe	Examines the search for life in extreme environments on Earth and in remote locations beyond Earth.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAS	416	Black Holes and Beyond	Explores developments in understanding nature's most basic force-gravity-from Aristotelian concepts to modern theories of curved space-time.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
IAS	420	Multicultural Autobiographies	Examines the human experience via autobiographies and personal narratives. Multicultural, literary, and psychological perspectives on individual lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C	Pre-requisite: ENG 101 or 105 with C or better
IAS	430	Science and Religion	Examines evolving relationships between scientific thought and Western and Eastern religious thought. Explores cosmologies, worldviews, and epistemologies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisite: ENG 101 or 105 with C or better; Credit is allowed for only IAS 430 or MAS 510
IAS	477	World Literature	Introduces world literature, mostly outside the United States and England.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisite: ENG 101 or 105 with C or better
IAS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
IAS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
IAS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
IAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IAS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
IAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
IBC	604	Clinical Medicine/Pathophysiology	Overview of each of the main systems within the human body. Addresses the major diseases (symptoms, diagnosis, and medical treatments) within each system. Students learn appropriate medical terminology for symptoms, diseases, treatments, and medical tests so they can communicate effectively with medical practitioners (nurses and physicians). Content is equivalent to pathophysiology training in an RN program. Also addresses the role of behavioral care providers in medical settings; design and implementation of psychoeducational programs in primary care; stress management techniques for use in medical settings; chronic pain management; identification and treatment of somatization disorder; increasing compliance in noncompliant patients; alternative/complementary medicine; overview of nutrition; and the effects of exercise and nutrition on prevention and treatment of diseases.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	608	Psychopharmacology for the Behavioral Care Provider	Provides overview of psychopharmacology to equip the behavioral care provider with the understanding of psychotropic medications necessary to make prescription recommendations to primary care physicians and to participate in medication management for patients being prescribed psychotropics. Basic principles of pharmacology in general, including pharmacokinetics, pharmacodynamics, medication development and the FDA approval process, interaction effects, drug company marketing strategies, appropriate and inappropriate medication usage, over-medication, and off-label medication use. Pharmacokinetics and pharmacodynamics in special populations (children, the elderly, and patients with co-morbid medical and psychological conditions). The Biodyne protocol for medication management, with emphasis on determining which psychological disorders are likely to be medication responsive. Major classifications of psychotropic medications: stimulants, antidepressants, anxiolytics, antipsychotics, mood stabilizers, narcotics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IBC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
IBC	704	Evidence-based Behavioral Interventions I: Core Skills	Covers the basic principles of the Biodyne Model, which are applicable to all behavioral health cases, both in outpatient mental health settings and in integrated care settings. Core knowledge forms the basis for success as a behavioral care provider in integrated medical settings. Includes common psychotherapist mistakes, evidence-based treatment, basics of the Biodyne Model, survey of integrated care approaches, defense mechanisms, case conceptualization strategies for maximum efficiency, and when to refer a patient for specialty care. Presents in detail common conditions (anxiety and depression), with a focus on how these conditions can be subcategorized for maximum treatment efficiency. Emphasizes the development of comprehensive treatment plans (including psychotropic medications, group programs, and other modalities). Presents didactic material in the context of actual cases. Strong focus on case examples, both illustrative cases provided by the instructor and the students' cases (past and/or current).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	706	Evidence-Based Behavioral Interventions II: Advanced Skills	Cover advanced principles of evidence-based integrated behavioral care in primary care and other medical settings. Focuses on both advanced behavioral interventions theory and practice and more complex diagnostic groups and related interventions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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IBC	712	Population-Based Behavioral Health Management	Overview epidemiology for health care followed by population-based approaches to behavioral intervention. Epidemiology includes concept of populations; descriptions and definitions of health and disease; measurement of health (measures, morbidity, mortality and health); designs for studying the health of populations and standardization of population health measures. Population-based management includes definitions of medical management; planning health care for populations and population health outcomes; quality of care and economic analysis of population-based interventions; adjunctive treatments as a core component of population-based interventions. Also, advanced application of population-based behavioral interventions with a focus on design, measures, analysis, results and discussion of current approaches. Includes predictive modeling methods for defining populations; interventions focusing on stepped-care approaches; engagement strategies, interventions, measurement, and follow-up.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	714	Quality and Performance Measurement, Improvement, and Incentives in Health Care	Overview of healthcare quality management, emerging models of healthcare performance measurement, and models of pay for performance incentives in healthcare designed to reward providers for attaining quality of care goals. Prepares behavioral clinicians to provide services that are consistent with best practices in quality management and performance measurement in healthcare and to provide care that is consistent with performance incentive programs that are present or on the horizon. A key characteristic of healthcare reform is increased focus on provider quality of care, accountability for quality via performance measurement, and aligning provider incentives to meet national and regional quality of care performance targets.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IBC	718	Healthcare Systems: Organization, Delivery and Economics	Provides an overview of the U.S. healthcare system with a focus on economics and policy. Primary goals of the course are to enable students to recognize the relevance of economics to healthcare and to apply economic principles to better understand health-related issues; understand the U.S. healthcare delivery system in the context of social, policy, and economic factors; evaluate the evolving nature of healthcare reform initiatives and their implications for clinical practice, financing, research and policy; analyze public healthcare policy from an economic perspective. Students also focus on behavioral healthcare economics and policy and the economics of behavioral health services in medical settings. Students also understand the medical cost offset effect, including economic benefits of behavioral interventions for co-morbid medical and behavioral conditions, measurement of medical cost-offset, and cost-offset for psychopharmacology and specific behavioral conditions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
IBC	720	Behavioral Health Entrepreneurship	Provides an introduction to the essential entrepreneurship skills for the behavioral healthcare clinician. Focuses on entrepreneurial skills designed to prepare the behavioral clinician to start a new business venture or revitalize an existing organization or business, to meet the needs of the evolving healthcare system and marketplace.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IBC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
IBS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey MBA program students
IBS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey MBA program students
IDN	101	Elementary Indonesian I	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
IDN	102	Elementary Indonesian II	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites: IDN 101 with C or better
IDN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
IDN	201	Intermediate Indonesian I	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: IDN 102 with C or better
IDN	202	Intermediate Indonesian II	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: IDN 201 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IDN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
IDN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
IDN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
IDN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
IED	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
IED	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	401	Navajo Language and Culture I	History and culture are added components to the introduction of language reading, writing, and speaking. Emphasizes basic communication and appreciation of history and culture.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	403	Navajo Language and Culture II	Emphasizes communication, grammar, and sentence structures. Translations, reading, writing, and discussions of proper and slang language. Includes cultural activities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	410	History American Indian Educ	Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. Credit is allowed for only IED 410 or 510.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	SB & H & C	Pre-requisites: Students who have credit for IED 510, may not enroll in IED 410
IED	430	Lang/Literacy-Indig Peoples	Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective. Credit is allowed for only IED 430 or 530.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	(HU or SB) & C	
IED	433	Counseling the Indian Student	Techniques and methods used in counseling, with emphasis on understanding Indian cultures and values. Experimentation with new counseling concepts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
IED	444	Govt Role-Native Ed Pol/Adm	Examines the interrelationship of federal Indian policy, federal/state/tribal law, and tribal sovereignty as they have shaped American Indian education. Analyzes administrative practices and personnel, program and fiscal management, and resources as they reflect the historic and present influence of this triad of factors. Credit is allowed for only IED 444 or 544.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	SB	
IED	460	Yaqui History and Culture	Yaqui history and culture ranging from precontact to the present. Larger themes of Yaqui identity, belief systems, family, traditions, community, resistance, dispersion, and survival.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	(HU or SB) & C & H	
IED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
IED	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
IED	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6	L	Pre-requisites: Must be an Honors student
IED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
IED	497	Honors Colloquium		Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
IED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
IED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
IED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	510	History of American Indian Education	Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. Credit is allowed for only IED 510 or 410.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student. Students who have credit for IED 410, may not enroll in IED 510
IED	530	Language/Literacy-Indig People	Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective. Credit is allowed for only IED 530 or 430.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
IED	544	Govt Role-Native Ed Pol/Adm	Examines American Indian education and how it is impacted by the interrelationship of federal Indian policy, federal/state/tribal law, and tribal sovereignty. Credit is allowed for IED 544 or 444.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
IED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
IED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

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IED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
IEE	100	Introduction to Engineering Design	Introduces industrial engineering design; teaming, the profession of engineering, computer models in engineering communication skills; quality and customer satisfaction. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	2.		Pre-requisites: Freshman or Sophomore standing
IEE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-3		
IEE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-4		
IEE	210	Introduction to Industrial Engineering	History of IE; IE career paths; ethical, social, and contemporary issues; introduces IE techniques, methods, and their application; case studies.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: IEE 100(or BME100,CHE100,CEE100,CSE101, ECE100,EEE101,EGR101,FSE100,MAE100,MSE 100, or SES 100) with C or better; MAT 265 (or MAT 270) with C or better
IEE	220	Business/Industrial Engr	Introduces business for industrial engineers, including business/financial structures, fundamentals of cost and accounting, role of business/engineering in society.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Engineering student; Introduction to Engineering course with C or better (or ECE 100); Minimum Sophomore standing
IEE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-4		
IEE	300	Economic Analysis for Engineers	Economic evaluation of alternatives for engineering decisions, emphasizing the time value of money.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Prerequisites: FSE BS/BSE OR Non Engrn with a min GPA of 3.00; MAT 265, 270 or 290 with a D or greater or currently enrolled; BME 100, CEE 100, CHE 100, CSE 101, ECE 100, EEE 101, IEE 100, MAE 100 or MSE 100 with a D or greater or be currently enrolled
IEE	305	Information Systems Engineering	Overview of computer and information systems applications. Topics include client/server; distributed computing; networks; process modeling; e-commerce; enterprise applications; Internet. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	CS	Pre-requisites: CSE 200 or 205 completed with a D or better or currently enrolled; Must either be an Engineering BS/BSE student or must be a Non-Engineering students with a minimum GPA of 3.00
IEE	368	Facilities Analysis and Design	Planning, analysis, and design of the tangible physical assets of the firm. Emphasizes facilities location, materials handling, automation, computer integration, and utilization of financial resources. Applications in diverse fields. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	L	Pre-requisites: IEE 300 completed with a grade of D or better or currently enrolled; Must be either an Engineering BS/BSE student or a Non-Engineering student with a minimum GPA of 3.00.
IEE	369	Work Analysis and Design	Planning, analysis, and design of methods of accomplishing work. Emphasizes human factors, work planning, methods analysis and design, and work measurement. Applications in diverse fields. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	L	Pre-requisites: Engineering BS/BSE students only and a grade of D or better or currently enrolled in IEE 300.
IEE	376	Operations Research Deterministic Techniques/Applications	Industrial systems applications with deterministic operations research techniques. Resource allocation, product mix, production, transportation, task assignment, networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: CSE 200 or CSE 205; MAT 242, 342, or 343
IEE	380	Probability and Statistics for Engineering Problem Solving	Applications-oriented course with computer-based experience using statistical software for formulating and solving engineering problems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	CS	Pre-requisites: Engineering student; MAT 266 or 271 with C or better
IEE	382	Probability and Statistics Lab	Applied modeling and data analysis using Excel and Minitab.	N	LAB	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1.		Pre-requisites: Industrial Engineering BSE student; Co-requisite: IEE 380
IEE	385	Engr Statistics - Probability	Conditional probability, common probability models, Goodness-of-fit tests and reliability models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Engineering BS/BSE/MS/MSE/PHD student; IEE 380 with C or better or ECE 380 with D or better
IEE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	1-4		
IEE	405	Developing Information Systems Applications	Analysis and design of distributed information system applications using object and relational architectures.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisite: Engineering BS or BSE student
IEE	431	Engineering Administration	Introduces quantitative and qualitative approaches to management functions, engineering administration, organizational analysis, decision making, and communication. Credit is allowed for only IEE 431 or 541.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Must be a senior Engineering BS/BSE student.
IEE	437	Human Factors Engineering	Studies the human psychological and physiological factors that underlie the design of equipment and the interaction between people and machines. Credit is allowed for only IEE 437 or 547.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Engineering BS/BSE students OR Non Engineering students with a minimum GPA of 3.0
IEE	461	Production Control	Techniques for the planning, control, and evaluation of production systems. Project management, forecasting, inventory control, scheduling, enterprise requirements planning. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.		Pre-requisites: Must be an Engineering BS/BSE student AND have completed with a D or better IEE 376 or IEE 476 AND have completed ASE485, IEE 385 or IEE 485 with a grade of D or better AND have completed CSE 100 or CSE 110 with a grade of D or better.
IEE	463	Computer-Aided Manufacturing and Control	Computer control in manufacturing, CIM, NC, logic controllers, group technology, process planning, and robotics. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgrm	3.	CS	Pre-requisites: Must be an Engineering BS/BSE student with Junior or Senior standing

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IEE	470	Stochastic Operations Research	Modeling and analysis with emphasis on stochastic operations research. Models for stochastic processes, including Markov chains, queueing and decision analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Industrial Engineering BSE student; IEE 376 completed with a C or better or currently enrolled; IEE 385 completed with a C or better or currently enrolled
IEE	474	Quality Control	Basic statistical process control techniques, capability analysis, design of experiments, and acceptance sampling plans.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: IEE 380 with C or better
IEE	475	Simulating Stochastic Systems	Analyzes stochastic systems using basic queueing networks and discrete event simulation. Basic network modeling, shared resources, routing, assembly logic. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	4.	CS	
IEE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	490	Project in Design and Development	Individual or team capstone project in creative design and synthesis. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.	L	Pre-requisites: Engineering BS/BSE Senior; IEE 475; IEE 376 or IEE 476 with C or better
IEE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-6		Pre-requisites: Must be an Honors student.
IEE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-6	L	Pre-requisites: Must be an Honors student
IEE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		
IEE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-7		
IEE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-3		
IEE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	505	Information Systems Engr	Studies information systems application engineering. Topics include information technology, data modeling, data organization, process mapping, application and database engineering, and user interface development. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	511	Analysis of Decision Processes	Methods of making decisions in complex environments and statistical decision theory; effects of risk, uncertainty, and strategy on engineering and managerial decisions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering graduate student
IEE	512	Introduction to Financial Engineering	Introductory course on financial engineering covering traditional portfolio theory, forwards, futures, financial stochastic models, option pricing, and risk management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	520	Statistical Learning for Data Mining	Surveys data analysis methods for massive data sets and provides experience in analysis with computer software.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	530	Enterprise Modeling	Focuses on social, economic, and technical models of the enterprise with emphasis on the management of technological resources. Includes organization, econometric, financial, and large-scale mathematical models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	532	Management of Technology	Topics include designing a technical strategy; technological forecasting; interfacing marketing engineering and manufacturing; designing and managing innovation systems; creativity; application of basic management principles to technology management.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	533	Scheduling	Provides the basic theory of scheduling and introduction to the applications domain.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	534	Supply Chain Modeling/Analysis	Techniques for modeling and analysis of supply chains. Inventory management, transportation/location models, value of information, channel alignment, risk pooling, contracts.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	535	Intro Intl Logistics Systems	Exploratory project-oriented course that addresses domestic and international logistics practices from a high-level descriptive perspective and an analytical model-based perspective.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	541	Engineering Administration	Introduces quantitative and qualitative approaches to management functions, engineering administration, organizational analysis, decision making, and communication. Credit is allowed for only IEE 541 or 431.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student.
IEE	543	Cmptr-Aided Manufact/Control	Computer control in manufacturing, CIM, NC, logic controllers, group technology, process planning and robotics. Credit is allowed for only IEE 543 or 463.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.

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IEE	545	Simulating Stochastic Systems	Analyzes stochastic systems using basic queuing networks and discrete event simulation. Basic network modeling, shared resources, routing, assembly logic. Credit is allowed for only IEE 545 or 475.	N	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be Engineering graduate student.
IEE	547	Human Factors Engineering	Study of people at work; designing for human performance effectiveness and productivity. Considerations of human physiological and psychological factors. Credit is allowed for only IEE 547 or 437.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student.
IEE	552	Strategic Technological Planning	Studies concepts of strategy, strategy formulation process, and strategic planning methodologies with emphasis on engineering design and manufacturing strategy, complemented with case studies. Presents and uses an analytical executive planning decision support system throughout course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student AND a grade of C or better or co-enrolled in IEE 545, IEE 561, or IEE 574.
IEE	553	Information Systems Assurances	Develops and applies engineering approaches to assuring the security of enterprise information systems, including principles of dependable information systems, technologies for information systems, intrusion detection, system response, and recovery.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Graduate Engineering student; IEE 505 with a C or better
IEE	560	Object-Oriented Info Systems	Applies object-oriented technology and concepts to enterprise information systems. Topics include requirement analysis, object-oriented design and programming, rapid application development, object data management, and development of object-oriented distributed applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student and have a grade of C or better in IEE 505 or be currently enrolled.
IEE	561	Production Systems	Understanding how factories operate, how performance is measured, and how operational changes impact performance metrics. Operational philosophies, increasing production efficiency through quantitative methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	562	Computer-Aided Mfg-CAM Tools	Current topics in automation, distributed control, control code generation, control logic validation, CAM integration, CAD/CAM data structures, planning for control systems. Topics vary by semester.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Industrial Engineering MS/MSE/PHD student and have completed IEE 463 or IEE 543 with a grade of C or better or be currently enrolled.
IEE	563	Distributed Info Systems	Introduces concepts and technologies that form the core of distributed enterprise information systems. Topics include client-server architectures, distributed objects and paradigms, Internet, World Wide Web, distributed information sharing, network programming, and e-commerce and enterprise applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS/MSE/PHD student; IEE 505 with C or better
IEE	564	Planning -Cmpt-Integrated Mfg	Theory and use of IDEF methodology in planning for flexible manufacturing, robotics, and real-time control. Simulation concepts applied to computer-integrated manufacturing planning.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	565	Cmpt-Integrated Mfg Research	Determination and evaluation of research areas in computer-integrated manufacturing, including real-time software, manufacturing information systems, flexible and integrated manufacturing systems, robotics, and computer graphics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Must be an Engineering graduate student AND a grade of C or better in IEE 564.
IEE	566	Simulation in Manufacturing	Uses simulation in computer-integrated manufacturing with an emphasis on modeling material handling systems. Programming, declarative, and intelligence-based simulation environments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 475 or 545 with C or better
IEE	567	Simulation System Analysis	Simulation modeling of processes involving discrete and continuous system components. Topics include random number generators, output analysis, variance reduction, and statistical issues related to simulation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 475 or 545 with C or better
IEE	570	Advanced Quality Control	Process monitoring with control charts (Shewhart, cusum, EWMA), feedback adjustment and engineering process control, process capability, autocorrelation, selected topics from current literature.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	571	Quality Management	Total quality concepts, quality strategies, quality and competitive position, quality costs, vendor relations, the quality manual, and quality in the services.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	572	Design Engineering Experiments	Analysis of variance and experimental design. Topics include strategy of experimentation, factorials, blocking and confounding, fractional factorials, response surfaces, nested and split-plot designs.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering graduate student
IEE	573	Reliability Engineering	Nature of reliability, time to failure densities, series/parallel/standby systems, complex system reliability, Bayesian reliability, and sequential reliability tests.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	574	Appl Deterministic Oper Rsch	Develops advanced techniques in operations research for the solution of complex industrial systems problems. Goal programming, integer programming, heuristic methods, dynamic and nonlinear programming.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Industrial Engineering MS, MSE or PhD student
IEE	575	Appl Stochastic Oper Rsch Mdls	Formulate and solve industrial systems problems with stochastic components using analytical techniques. Convolution, continuous-time Markov chains, queues with batching, priorities, balking, open/closed queuing networks.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student

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IEE	576	Analy Semiconductor Mfg Oper	Applies operations research and statistical methods to solve problems that involve semiconductor manufacturing operations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	577	Adv Information System Oper	Industrial engineering knowledge and skills for information system operations, including aspects (security, quality of service, user interface, information modeling), problems, and solutions.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering Graduate student; IEE 505 with C or better
IEE	578-M	Regression Analysis	Regression model building oriented toward engineers and physical scientists. Topics include linear regression, diagnostics, biased and robust fitting, nonlinear regression.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	579	Time Series Analy/forecasting	Forecasting time series by regression-based, exponential smoothing, and ARIMA model techniques; uses digital computer programs to augment the theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisite: Engineering Graduate student
IEE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	581	Six Sigma Methodology	The six sigma process improvement strategy of define, measure, analyze, improve, and control (DMAIC). Integrates and deploys statistical methods and other six sigma problem solving via the DMAIC framework. Requires background in design of experiments, statistical quality control, and regression analysis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	582	Response Surfaces/Process Opt	Classical response surface analysis and designs including steepest ascent, canonical analysis, and multiple responses. Other topics include process robustness studies, robust design, and mixture experiments.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD; IEE 572 with C or better
IEE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	585	Six Sigma Capstone.	The DMAIC (define, measure, analyze, improve, control) improvement strategy is applied in the formulation and execution of a six sigma project.	N	PRA	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		Pre-requisite: Industrial Engineering MS, MSE or PHD student
IEE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1.		
IEE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-4		Pre-requisite: Engineering Graduate student
IEE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	620	Optimization I	First course of the PhD-level deterministic course series. Covers foundations of optimization and linear programming. Prior working knowledge of linear algebra and knowledge of how to formulate linear programs is required for this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		
IEE	670	Mathematical Statistics	Introduction to the field of mathematical statistics at a level intended for first-year PhD students in Industrial Engineering. Builds a solid background in the principles, concepts, and techniques of mathematical statistics. Prepares students for advanced study and research in statistics, and is useful for understanding statistical data analysis techniques and developing statistical thinking. Completion of at least one course in probability and statistics is required prior to taking this class.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		

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IEE	672	Adv Topics-Experimental Design	Multilevel and mixed-level factorials and fractions, design optimality, incomplete blocks, unbalanced designs, random effects and variance components, analysis of covariance.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 572 with C or better
IEE	677	Regression/Genrlzd Linear Mod	Theory of linear models including least squares, maximum likelihood, likelihood-based inference. Generalized linear models including Poisson and logistic regression, generalized estimating equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 578 with C or better
IEE	679	Time Series Analy/Control	Identification, estimation, diagnostic checking techniques for ARIMA models, transfer functions, multiple time series models for feedback and feedforward control schemes.	N	LEC	N	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	3.		Pre-requisites: Engineering MS, MSE or PHD student; IEE 579 with C or better
IEE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		Pre-requisite: Industrial Engineering MS, MSE or PHD student
IEE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-12		
IEE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-15		
IEE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1.		
IEE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Industrial, Systems & Operations Engineering Prgm	1-15		
IMD	564	Multimedia Applications in Instruction	Utilizes various forms of multimedia and authoring software to create materials and instruction. fee	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IMD	566	Assessment and Evaluation of Media Applications	Examines a variety of strategies in assessing learning, collecting and evaluating data, and evaluating technology resources for classroom integration.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IMD	572	Media Collection and Development	Explores the identification, selection, acquisition, and evaluation of a collection of library resources for a specific community of users.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IMD	574	Organization and Administration of School Library Media	Explores the role of the school library media specialist and program as it relates to the educational community.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IMD	576	Social and Ethical Issues in Educational Media	Examines the social, ethical, legal, and human issues surrounding the use of technology in K-12 schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IMD	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IMD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IMD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
IMD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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IMD	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
IMD	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
IMD	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
IND	120	Drawing for Industrial Design	Drawing as language to explore and communicate ideas. Development of drawing aptitude as language and process for industrial design thinking.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student
IND	121	Principles for Industrial Design I	Industrial design as a language and process for creative thinking and realization.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student; Co-requisite: IND 122
IND	122	Principles for Industrial Design II	Continued exploration of industrial design as a language and process for creative thinking and realization.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student; IND 120 with C or better; Co-requisite: IND 121
IND	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
IND	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	227	Visual Methods for Problem Solving	Introduces conceptual design activity based on the mind-eye-media feedback loop. Graphic language used to represent conjecture, analysis, synthesis of objects, and their contexts.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student, IND 122 with C or better; Passed Milestone; Co-requisite: IND 260
IND	228	Imaging and Visualization	Design activities stressing graphic language abstraction practiced for presentation. Discusses structure of criticism, including description, interpretation, and evaluation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 227 with C or better; Co-requisite: IND 261
IND	236	Intro Cmptr Model-Indust Dsgn	Computers in industrial design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; Passed Milestone
IND	242	Materials and Design	Materials application in design. Introduces characteristics and properties of metals and organic materials, including plastics, and inorganic materials.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	243	Design for Ecology and Social Equity	Explores the role of design in the ecological crisis; materials, processes, strategies and methods to design more ecologically friendly and socially equitable products.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	260	Industrial Design I	Introduces the method and process of the industrial designer. Determinants necessary in small product design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 122 with C or better; Passed Milestone; Co-requisite: IND 227
IND	261	Industrial Design II	Issues of physical form development related to product and design; form development properties of paper, fibers, wood, metal, and plastics.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 260 with C or better; Co-requisite: IND 228
IND	316	20th-Century Design I	Modern European and American design from 1900 to 1940. Emphasizes transportation, product, furniture, exhibition, and graphic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	
IND	317	20th-Century Design II	Modern European, Asian, and American design since 1940. Emphasizes transportation, product, furniture, exhibition, and graphic design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	
IND	327	Presentation Graphics	Studies methods for portfolio and professional product presentation using graphic media for information transfer. Stresses aesthetic judgment, organization, and craftsmanship.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Industrial Design student; Co-requisite: IND 360
IND	328	Graphics for Industrial Design	Investigates and applies applications and planning to the development of an identity for a product line structured as a system.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Industrial Design student; IND 327 with C or better; Co-requisite: IND 361
IND	344	Human Factors in Design	Man-machine environment systems; human characteristics and behavior applied to design of products, systems, and their operating environment.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	354	Principles of Product Design	Influences of physical and mechanical concepts in product design; mechanisms, kinematics, and fastening systems. Concepts of analysis for product design. Influences of concepts on aesthetics.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Pre-Industrial Design or Industrial Design BSD student; PHY 111 with C or better
IND	360	Industrial Design III	Methods of visual thinking, conceptualization, and ideation related to building skill levels in professional design presentation techniques. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design student; IND 261 with C or better; Co-requisite: IND 327
IND	361	Industrial Design IV	Emphasizes developing ideas into a complete functional product, including survey and application of aesthetics, human factors, materials, and manufacturing. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design student; IND 360 with C or better; Co-requisite: IND 328
IND	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	460	Design Project I	Complete analysis of the product unit as an element of mass production, featuring marketing, technology, human factors, and visual design. Emphasizes professional standards. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design student; IND 361 with C or better; Co-requisite: IND 484; IND 470
IND	461	Design Project II	Product design, with emphasis in systems interaction. Culmination of design process and technique. Encourages individual project direction. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Industrial Design BSD student; IND 460 with C or better

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IND	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
IND	465	Collaborative Design Dev II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.	L	
IND	470	Professional Practice for Industrial Design	Business procedures, management techniques, accounting systems, ethics, and legal responsibilities of the design professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	L	Pre-requisite: Industrial Design student; Co-requisite: IND 460 or Design Studies minor student
IND	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Industrial Design student; IND 361 with C or better; Co-requisite: IND 460
IND	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
IND	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
IND	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		
IND	544	Human Factors Systems and Documentation	Advanced topics associated with theory and methods of human factors in design. Individual projects stressing problem organization, evaluation, and documentation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
IND	548	Design for Sustainable Development	Research on designing systems that are economically viable, ecologically friendly, and socially equitable.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
IND	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
IND	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
IND	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
IND	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	513	Textiles in Historic Interiors: Appearance, Function, Symbolism	Overview of textiles used in historic interiors that explores their aesthetic, functional, and symbolic contribution.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
INT	111	Interior Design Issues and Theories	Interiors issues, theories, and philosophies. Emphasizes unique social and cultural factors that shape 20th-century design concepts.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	
INT	120	Design Drawing and Media	Visual thinking: Development of freehand drawing techniques as a language and tool to explore, communicate, and process ideas.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Interior Design student
INT	121	Introduction to Computer Modeling for Interior Design	Computers in interior design, including software concepts, specific packages, and problem solving, illustration, typography, modeling, and animation.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	CS	
INT	123	Introduction to Computer-Aided Design of Built Environments	Introduces AutoCAD computer-aided design principles and strategies for designers of the built environment.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	131	Design and Human Behavior	Applies conceptual design to issues of programming and space planning, user needs, and behavior.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	SB	
INT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-3		
INT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
INT	221	Principles of Design	Applied visual vocabulary: studio experience exploring applications, process and conceptual development of the principles of order and composition.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; INT 120 with C or better; Co-requisite: INT 222
INT	222	Principles of Design Lecture	Applies the visual vocabulary: explores the principles of organization through examination of historical precedence and contemporary interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisite: Interior Design student; Co-requisite: INT 221
INT	223	Drafting for Interior Design	Orthographic, paraline, axonometric, and perspective projection; shades and shadows; and basic descriptive geometry for interior designers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Passed Milestone; Co-requisite: INT 261
INT	238	Intro to CAD	Introduces AutoCAD computer-aided design principles and strategies for designers of the built environment. Lecture, lab.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	253	Interior Materials, Finishes, and Specifications	Survey, evaluation, and specification of materials, finishes, and performance criteria for interiors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; INT 261 with a C or better; Co-requisite: INT 351
INT	261	Interior Design Studio I: Residential	Studio problems in interior design related to behavioral response in personal and small-group spaces.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Passed Milestone; Co-requisite: INT 223
INT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	310	History of Interior Design I	Design of interior spaces as an expression of cultural influences to 1835.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	Pre-requisites: ARS 102 with C or better
INT	311	History of Interior Design II	Design of interiors as an expression of cultural influences from 1835 to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU & H	Pre-requisites: Must have completed INT 310 with a grade of C or greater or be currently enrolled
INT	320	Computer Modeling for Design Studies	Computers in design management, including software concepts, specific packages, problem solving, illustration, modeling, and animation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		
INT	341	Interior Codes: Public Welfare and Safety	Codes and regulations as performance criteria for interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	2.		Pre-requisites: Interior Design student; Corequisites: INT 352, INT 362, and INT 381
INT	351	Ambient Environment	Surveys environmental control systems, acoustics, and lighting issues.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Co-requisite: INT 253
INT	352	Construction Methods in Interior Design	Design theory related to analysis, materials, and building techniques of horizontal and vertical construction in interior design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design student; Co-requisites: INT 341, INT 362 and INT 381
INT	354	Construction Documents	Elements of construction drawing sets, application of codes and specifications, and contract administration.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Interior Design student; Co-requisite: INT 363
INT	362	Interior Design Studio II: Hospitality and Retail	Investigates interior design issues in hospitality and retail environments. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; Co-requisites: INT 341, INT 352 and INT 381
INT	363	Interior Design Studio III	Explores the poetics of materials and their assemblage in the design of public and private spaces. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; INT 362 with C or better; Co-requisite: INT 354
INT	364	Interior Design Studio I	Studio problems in interior design related to behavioral response in personal and small group spaces. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		
INT	381	Preinternship Seminar	Preparation of internship materials that produce and enhance a successful internship experience.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	1.		Pre-requisite: Urban Planning , Landscape Architecture BSLA, Graphic Design BSD, Interior Architecture BSD, Architectural Studies BSD, Housing & Urban Developmnt BSD or Industrial Design BSD
INT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	412	History of Decorative Arts in Interiors	Design of decorative arts as an expression of cultural influences and as an extension of interior spaces.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.	HU	Pre-requisite: INT 311 with C or better
INT	413	History of Textiles in Interior Design	Cultural and historical expression of textiles as related to interiors.	N	FLD	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: INT 412 with C or better
INT	415	Latin American Design	The impact of Latin American culture and civilization on design throughout the Americas.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Junior standing
INT	446	Furniture Design and Production	Design, construction, cost estimating, and installation in interior furniture and millwork.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisite: Graphic Design BSD, Interior Architecture BSD or Industrial Design BSD student
INT	464	Interior Design Studio IV: Work Environments	Studio problems in interior design-related issues in work environments. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; INT 363 with C or better; Co-requisites: INT 484; INT 471
INT	465	Interior Design Studio V: Institutional Design	Advanced interior design problem solving related to institutional facilities. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	5.		Pre-requisites: Interior Design student; INT 464 with C or better; Co-requisite: INT 472
INT	471	Facilities Management	Facility management process in large-scale organizations. Planning, long-range forecasting, and productivity. Project management methodologies using micro-based software programs.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Interior Design or Design Studies (Design Mngt) BA student and Senior standing
INT	472	Professional Practice for Interior Design	Business procedures, project control, fee structures, and professional product liabilities.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	2.		Pre-requisites: Interior Design student; Co-requisite: INT 465
INT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		Pre-requisites: Interior Architecture BSD student; DSC 483 or INT 381 with Y grade
INT	492	Honors Directed Study		Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6		
INT	493	Honors Thesis		N	THE	N	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-6	L	Pre-requisites: Must be an Honors student
INT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-3		

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INT	527	Contemporary Design Theory	Aesthetic, political, economic, and social theories that have shaped modern design; theory as the basis for design philosophies.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
INT	529	Design Criticism	Applies critical methods to design as material culture and human expression; evaluates achievement versus intention.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Design Innovation	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
INT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-12		
INT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Design Innovation	1.		
INT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Design Innovation	1-4		
INT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Design Innovation	1-12		
ITA	101	Elementary Italian I	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	102	Elementary Italian II	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	111	Accelerated Elementary Italian	Accelerated elementary Italian for experienced language learners. Emphasizes reading, writing, listening, speaking, and cultural proficiency.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
ITA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
ITA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	201	Intermediate Italian I	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on both spoken and written genres of Italian culture. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ITA	202	Intermediate Italian II	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on values of Italian culture. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
ITA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	311	Italian Conversation	Engages students in different oral/aural activities to reach an advanced proficiency level.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 202 with C or better
ITA	312	Italian Composition	Engages students in different written activities to reach an advanced proficiency level.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 202 with C or better
ITA	315	Italian Civilization	Students read and analyze texts and artifacts that represent important cultural and political movements of Italian civilization.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites:ITA 311, 312 with a grade of D or better, or enrolled, or ITA 314 with D or better or enrolled
ITA	319	Italian for Professions	Read and analyze texts and artifacts that represent important cultural and political movements of Italian civilization.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ITA 202 with C or better
ITA	321	Introduction to Italian Literature I	Studies the development of early Italian language, literature, and culture through reading, discussion, and writing activities in Italian.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	322	Introduction to Italian Literature II	Studies the development of modern and contemporary Italian language, literature, and culture through reading, discussion, and writing activities in Italian.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: ITA 202 with C or better
ITA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	413	Advanced Italian	Development and assessment of advanced spoken and written Italian proficiency through activities using all four skills.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: ITA 311 or 312 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ITA	420	Italian Cinema	Major trends of Italian cinema from the post-war period to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	425	Italian American Culture	Analyzes representations of Italian American history and culture in several media including literature, film, and television.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	
ITA	430	Italian Literature of the Middle Ages	Emphasizes Stil Novo, Dante's minor works, Petrarch, and Boccaccio.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	441	Dante: Divina Commedia	Critical reading of the three Cantiche (Inferno, Purgatorio, and Paradiso).	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	443	Italian Literature of the Renaissance	Emphasizes Lorenzo de'Medici, Poliziano Castiglione, Machiavelli, Ariosto, and Tasso.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	446	Italian Literature of the 18th and 19th Centuries	Goldoni, Parini, Alfieri, the poetry of Foscolo and Leopardi, and the sociohistorical novels of Foscolo, Manzoni, and Verga.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	449	20th-Century Italian Literature	Major works, figures, and movements of contemporary Italian literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites:ITA 325 with a grade of C or better or currently enrolled
ITA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ITA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
ITA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
ITA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ITA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ITA	594	Conf And Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
ITA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ITA	101	Elementary Italian I	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.		
ITA	102	Elementary Italian II	Fundamentals of the language. Emphasizes listening, speaking, reading, writing, and cultural proficiency. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.		
ITA	201	Intermediate Italian I	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on both spoken and written genres of Italian culture. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.	G	
ITA	202	Intermediate Italian II	Emphasizes reading, writing, listening, and speaking proficiency at an intermediate level. Focuses on values of Italian culture. fee	N	LEL	N	OPT	Office of the Provost	Office of the Provost	4.	G	
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCCD will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCCD tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		

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JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JAC	101	Intermediate Algebra with the Maricopa County Community College District	JAC 101 is a non-credit placeholder that will facilitate enrollment in MAT 122: Intermediate Algebra offered on the ASU campus by the Maricopa Community College District. JAC 101 will display on transcripts, class schedules, and billing statements. Upon completion of the Intermediate Algebra course, MCCCDC will automatically submit transcripts for the MAT 122 course to ASU for students enrolled in this partnership. Students will be charged ASU and MCCCDC tuition and fees on their ASU billing statement. Students will submit payment for all courses directly to ASU.	N	LEC	Y	Z1	Office of the Provost	Arizona State University	0.		
JHR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
JHR	501	Proseminar in Social Justice and Human Rights	Classical and contemporary theories of social justice and human rights in the context of current local, national, and international issues. Special reference made to the roles of both governmental and nongovernmental organizations in addressing social justice and human rights issues.	N	SEM	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
JHR	506	Grant Writing for Social Justice and Human Rights	Seminar in grant writing and fund raising for social justice and human rights. Provide an introduction to the grassroots grant writing and fund raising process, with a particular focus on justice-oriented nonprofit and international nongovernmental organizations.	N	SEM	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
JHR	510	Problem-Based Seminar in Social Justice and Human Rights	Interdisciplinary seminar examines current problems in social justice and human rights from several different theoretical and analytical viewpoints. May be repeated once for credit.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
JHR	511	Community-Embedded Seminar in Social Justice and Human Rights	Interdisciplinary seminar requiring students to be placed in community organizations dealing with the course issue during the semester. Emphasizes developing effective strategies for partnerships with relevant community organizations and evaluating institutional settings, policies, and procedures from the perspective of social justice and human rights.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
JHR	525	Action Research in Social Justice and Human Rights	Advanced practicum in engaged, community-embedded research and interpretive analysis. Gives students experience in the practice of engaged fieldwork as well as the writing it generates.	N	SEM	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
JHR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
JHR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
JHR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
JHR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
JHR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
JHR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		

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JHR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
JHR	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
JHR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1.		
JHR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-4		
JHR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
JMC	101	Grammar for Journalists	Grammar course specifically designed to help journalism majors master the essentials of grammar. All majors must achieve an 80 percent in the course, indicating a mastery of grammar, before they can move on to any other journalism courses. A test is offered during the first week of each semester's class so that students who feel they already have a mastery of grammar may attempt to test out.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		Pre-requisite: Journalism and Mass Communication student
JMC	110	Principles and History of Journalism	Organization, function, and responsibilities of the media and adjunct services. Primary emphasis on newspapers, radio, television, and magazines. Credit is allowed for only JMC 110 or MCO 120.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	Pre-requisites: Journalism & Mass Communication student
JMC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisite: Journalism and Broadcasting student
JMC	201	News Reporting and Writing	Basic news reporting and writing techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	L	Pre-requisites: ENG 102, 105 or 107 and JMC 110 (or MCO 120) with C or better; JMC major; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA
JMC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
JMC	301	Intermediate Reporting and Writing (Print)	Intermediate news reporting and writing techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	L	Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	305	Online Media	Focuses on the Internet from the perspective of the journalist--the best way to tell a story using words, photos, video, and audio. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 201 with C or better; 2.5 cumulative GPA OR Graduate Mass Communication student
JMC	310	Public Relations	Theory and practice of publicity, public relations, and related techniques and procedures.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	313	Introduction to Editing	Copyediting and headline writing. Electronic editing on personal computer terminals. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Communication student; 2.50 minimum cumulative GPA; JMC 301 with a C or better or currently enrolled
JMC	315	Intermediate Reporting and Writing (Broadcast)	Intermediate broadcast news reporting and writing techniques with emphasis on audio. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	L	Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	320	Newscast Producing	Supervising editorial content of the television newscast. Focuses on writing, use of graphics, and video. Students learn how to design, write, and supervise the television newscast. In practical lab experience, students produce a live 30-minute television newscast airing in greater Phoenix. As must be current on news of the day both locally and nationally, and be prepared to supervise other students in the news-gathering process.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism major with a 2.50 GPA or higher; completed with a C or better JMC 315 AND JMC 425 or co-enrolled in JMC 315 and JMC 425
JMC	325	Multimedia Reporting	Gives students practical experience working in an online, multimedia environment. Helps sharpen skills and gives them a real-world view of how journalism works in the 21st century.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 201 and ENG 102, 105 or 108 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	330	Television Reporting	Writing, reporting and editing for television. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 315 and JMC 345 with C or better

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JMC	332	Electronic Media Programming	Programming theory and evaluation, regulation, ethics, and responsibilities and basics of audience psychographics and effects.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 200 (or MCO 200) with C or better; Minimum 2.50 GPA
JMC	336	Station Operations	Basic understanding of the operations of a broadcast station. Examines internal organization structure and the relationship between each department.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 200 or MCO 200 with C or better
JMC	345	Videography	Develops an understanding of visual storytelling and how to craft a good, compelling story with pictures and sound. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA; JMC 201 with C or better
JMC	351	Photojournalism I	Basic camera, lighting, and scanning skills. Discusses ethics. Emphasizes shooting pictures for newspaper assignments on deadline. Students should have a 35mm (film) camera. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC students; JMC 201 with C or better; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 101); Minimum 2.50 GPA
JMC	366	Journalism Ethics and Diversity	Explores contemporary news media ethical problems in a seminar setting. Uses journalism ethical perspectives to obtain keys to unlock contemporary dilemmas surrounding the news media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 110 with C or better; Minimum 2.50 GPA; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists)
JMC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 300, JMC 315, TCM 300 or TCM 315 with C or better
JMC	402	Mass Communication Law	Legal aspects of the rights, privileges, and obligations of the press, radio, and television.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 201 and ENG 102 with C or better; Minimum 56 hours; Successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); Minimum 2.50 GPA
JMC	412	Editorial Interpretation	The press as an influence on public opinion. Role of the editorial in analyzing and interpreting current events.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Prerequisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	413	Advanced Editing	Theory and practice of newspaper editing, layout and design, picture and story selection. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student, JMC 313 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	414	Graphic Design for Print and Web	Theory, organization, and practice of layout, typography, and design in traditional and multimedia publishing. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Comm student; JMC 201 with a C or better or be currently enrolled; successful completion of the English Grammar Test administered by the Cronkite School (or JMC 194 Grammar for Journalists); 2.50 cumulative GPA
JMC	415	Writing for Public Relations	Development of specific writing techniques for the practitioner in public relations agencies and divisions of major organizations. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; JMC 270 or JMC 310 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	417	Public Relations Campaigns	Theory, principles, and literature of public relations and how they relate to audiences, campaigns, and ethics.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; JMC 270 or JMC 310 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	420	Reporting Public Affairs	Instruction and assignments in reporting the courts, schools, government, city hall, social problems, and other areas involving public issues. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student, JMC 301 with C or better; Minimum 2.5 GPA OR Graduate Mass Communication student
JMC	433	Media Sales and Promotion	Basics of electronic media marketing practices, including commercial time sales techniques and radio/TV promotion fundamentals.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Comm student, JMC 200 (or MCO 200) with a grade of C or greater or be currently enrolled; 2.5 cumulative GPA OR Graduate Mass Communication students
JMC	437	Documentary Production	Emphasizes individual production projects of the student's own conception and design utilizing studio, field, and postproduction techniques. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.5 GPA; JMC 345 with C or better OR Graduate Mass Communication student
JMC	440	Magazine Writing	Writing and marketing magazine articles for publication. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.5 GPA OR graduate Mass Communication student
JMC	445	Science and Medical Writing	Develops writing, reporting, and an understanding of key concepts in science as they relate to medical science research and practice. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	451	Photojournalism II	Emphasizes shooting and Photoshop skills for newspaper and magazine assignments. Film and digital photography, flash and studio lighting. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communications student; JMC 351 with a C or better or currently enrolled; 2.5 minimum cumulative GPA OR Graduate Mass Communication student
JMC	452	Photojournalism III	Continued practice in shooting (film and digital) and Photoshop skills for newspapers and magazines. Emphasizes single images, picture stories, editorial illustrations, and portfolio development. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; Minimum 2.50 GPA; JMC 451 with C or better OR Graduate Mass Communication student
JMC	460	Advanced Online Media	Covers online trends, Web design and usability, and copyright; legal, and ethical issues facing online journalists. Students critically examine journalistic Web sites and recognize excellence as well as mediocrity. Hands-on experience in using Photoshop, Dreamweaver, CSS, Soundslides, Final Cut, and Flash to produce original, compelling multimedia stories as well as an award-winning online magazine.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Communication student; JMC 425 with a C or better or currently enrolled; 2.50 minimum cumulative GPA OR Graduate Mass Communication students

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JMC	465	Precision Journalism	Advanced reporting methods using Internet research and data analysis tools for beat and investigative stories. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism and Mass Communication student; JMC 301 with a C or better or currently enrolled; 2.50 minimum cumulative GPA OR Graduate Mass Communication students
JMC	470	Depth Reporting	Introduces strategies for writing in-depth newspaper or magazine articles. Fee.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	472	Media Management	Management principles and practices, including organization, procedures, policies, personnel problems, and financial aspects of station management.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; MCO 200 (or JMC 200) with C or better; Minimum 2.50 GPA OR Graduate Mass Comm student
JMC	473	The Business and Future of Journalism	Exposes advanced journalism students to broad media management problems; helps students understand how essential the bottom-line and quality journalism are to the entire journalistic enterprise; helps students think about how to balance those two concerns.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism student; minimum cumulative GPA of 2.5; JMC 201 with C or better
JMC	475	Television Newscast Production	Writing, reporting, and production of the television newscast. May be repeated once for credit. Fee.	N	LEL	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3-9		Pre-requisites: Journalism and Mass Communication student ; JMC 330 with C or better or currently enrolled; 2.50 cumulative GPA OR Graduate Mass Communication student
JMC	478	Cronkite News Service	Supervising editorial content of the television newscast. Focuses on writing, use of graphics, and video.	N	LEL	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3-9		Pre-requisites: Journalism and Mass Communication student; JMC 301 or JMC 330 with C or better
JMC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
JMC	492	Honors Directed Study		N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6		
JMC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisites: JMC student; Minimum 2.50 GPA OR Graduate Mass Communication student
JMC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-7		Pre-requisites: JMC student; Minimum 2.25 GPA; Successful completion of English proficiency exam OR Graduate Mass Communication student
JMC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-3		
JMC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		
JPN	101	First-Year Japanese I	Basic speaking, listening, reading, writing, computer skills, and culture. Hiragana, katakana, 75 kanji. For students without previous Japanese instruction. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
JPN	102	First-Year Japanese II	Continued development of JPN 101 skills. 99 additional kanji. Communication skills goal: ACTFL Guideline Novice-Mid to Novice-High. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites: JPN 101 with a C or greater or in progress. Students may not take JPN 102 if they have received credit for JPN 201,202, 309,310,311,312,313,314,321
JPN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
JPN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	201	Second-Year Japanese I	Continued development in speaking, listening, reading, writing, culture, and computer skills. 74 additional kanji. Introduction to kanji dictionary. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: JPN 102 with a C or greater or in progress & may not enroll in class if received a D or better in JPN 202,309,310,311,312, 313,314,321
JPN	202	Second-Year Japanese II	Continued development of JPN 201 skills. 116 additional kanji. Communication skills goal: ACTFL Guideline Intermediate-Low to Intermediate-Mid. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: JPN 201 with a C or greater or currently enrolled
JPN	206	Japanese Calligraphy	Introduces Japanese calligraphy using traditional implements, starting with basic brush strokes and stroke order for kanji and kana.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1.		Pre-requisites: JPN 101 with C or better
JPN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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JPN	301	Third-Year Japanese I	Development of reading skills, using authentic materials to comprehend structure, grammar, idioms, and culture. Expansion of kanji and vocabulary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisite: JPN 202 with C or better
JPN	302	Third-Year Japanese II	Continued development of reading skills, as in JPN 301. Reading proficiency goal: ACTFL Guideline Intermediate-High.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 301 with C or better
JPN	309	Japanese Oral Communication I	Development of interpersonal, interpretive, and presentational oral/aural skills in familiar topics with sociolinguistic skills and understanding of Japanese culture. JPN 309 and 310 must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 202 with C or better
JPN	310	Japanese Oral Communication II	Continued development of oral/aural skills, with increased emphasis on honorifics. Speaking proficiency outcome goal: ACTFL Guideline Intermediate-High.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 309 with C or better
JPN	311	Japanese Composition I	Learning structural guidelines for narrative writing, developing organization skills to support ideas. Writing proficiency outcome goal: ACTFL Guideline Intermediate-High.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 202 with C or better
JPN	312	Japanese Composition II	Continued development of writing skills, introducing research and creative writing. Writing proficiency goal: ACTFL Guideline Intermediate-high to Advanced.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: JPN 311 with C or better
JPN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	401	Reading Modern Japanese Texts I	Readings in modern literary and expository texts. Focus varies from year to year.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	Pre-requisites: JPN 302 and SLC 202 with C or better
JPN	414	Introduction to Classical Japanese	Readings from various genres of pre-20th-century literature, with analysis of the structure of the classical language.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 401 with a grade of C or better
JPN	415	Advanced Classical Japanese	Close readings of selected premodern texts, with focus on grammatical and stylistic features.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 414 with C or better
JPN	445	Readings in Modern Japanese Letters and Culture	Advanced study of selected facets of modern Japanese letters and culture, including literature, material and visual culture, film, and other media.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 401 and SLC 202 with C or better
JPN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	485	Literary Translation: Theory and Practice	Introduces theories and practice of literary translation, with an emphasis on the translation of Japanese literary texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: JPN 401 and SLC 421 with a C+ or better
JPN	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
JPN	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
JPN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
JPN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
JPN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	520	Teaching of Japanese as a Second Language	Theory and practice of teaching Japanese, including presentation, interaction, and evaluation, with consideration given to cultural factors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	535	Advanced Readings	Readings in primary and secondary sources in history, art, religious studies, literature, or other fields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	543	Japanese Language and Linguistics	Analysis and discussion of linguistic theories applied to Japanese phonology, morphology, and syntax, including psychological, sociological, and historical aspects.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
JPN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	585	Advanced Problems of Translation	Theories and practice of translation; strategies for handling a variety of Japanese texts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

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JPN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
JPN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
JPN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
JPN	102	First-Year Japanese II	Continued development of JPN 101 skills. 99 additional kanji. Communication skills goal: ACTFL Guideline Novice-Mid to Novice-High. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.		
JPN	201	Second-Year Japanese I	Continued development in speaking, listening, reading, writing, culture, and computer skills. 74 additional kanji. Introduction to kanji dictionary. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
JPN	202	Second-Year Japanese II	Continued development of JPN 201 skills. 116 additional kanji. Communication skills goal: ACTFL Guideline Intermediate-Low to Intermediate-Mid. Fee.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
JUS	105	Introduction to Justice Studies	Introductory overview to the study of justice from a social science perspective. Primary topics include justice theories and justice research. Credit is allowed for only JUS 105 or 305. Appropriate for freshmen and sophomores.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Open to undergraduate students who have not received credit for JUS 305; Justice Studies students must have 56 or less earned hours
JUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Must have less than or equal to 25 earned hours
JUS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: Must have less than or equal to 25 hours
JUS	200	Topics in Concepts and Issues of Justice	Uses critical thinking skills to analyze and comprehend controversial social issues (e.g., abortion, affirmative action, capital punishment, the flat tax, and immigration).	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	207	Homicide and Serial Killers	Explores the scholarship, research and rational analysis of the mass, spree and serial killer. It will examine some of the causes and underpinnings of these killers within the U.S. as well as the major theories and understandings of this phenomenon.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	214	Justice Institutions	Introduces a wide variety of institutions and organizations--locally, nationally and internationally--that seek justice. Provides an understanding of the many ways justice is institutionalized in modern societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	
JUS	222	Drugs and Justice	Provides an historical overview of the development and circulation of certain drugs; explores the more specific effects of drug use and abuse in everyday life; and examines the efforts by governments to both restrict/end and facilitate/expand the drug trade.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Credit is allowed for only JUS 200 (Drugs and Justice) or 222
JUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
JUS	301	Research in Justice Studies	Focuses on developing and evaluating research designs, data collection, and the relationship between validity and reliability. Stresses methods for conducting research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	302	Basic Statistical Analysis in Justice Studies	Introduces the fundamentals and application of descriptive and inferential statistics, with emphasis in the justice area.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	CS	Pre-requisites: Must have completed Intermediate Algebra or higher; Justice Stds student OR 2.0 GPA and 25 earned hours and specific students as determined by Justice Stds Depart. OR 2.0 GPA and more than 56 hours and not be a Justice Stds student.
JUS	303	Justice Theory	Examines classic and contemporary philosophies and theories of justice, including legal, social, and criminal justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA

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JUS	305	Principles of Justice Studies	Introductory overview to the study of justice from a social science perspective. Primary topics include justice theories and justice research. Credit is allowed for only JUS 305 or 105. Appropriate for juniors and seniors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	306	Police and Society	Focuses on community policing; critical inquiry of administrative decision making; perspectives on police-citizen violence; street practices; urban policing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	308	Courts and Society	History and development of courts. Relationship between dispute resolution mechanisms and cultural/social structure/processes in which they are embedded.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	310	Corrections and Justice	Examines the United States prison condition; types of offenders; issues including drugs, gangs, drunk driving, racial discrimination, and "intermediate" punishments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	311	Crime, Prevention, and Control	Examines prevention and control of crime by a review of contemporary theories, justice agency procedures, and social policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	320	Community and Social Justice	Discusses and analyzes definitions of community; impact of environment on behavior; promises of community organization for local empowerment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	321	Wealth Distribution and Poverty	Examines wealth and income distribution in the United States and analyzes ideological and political forces producing an increasingly unequal society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	323	Justice and the Development of the Welfare State	Provides a comprehensive overview of the development of social welfare and relevant issues pertaining to social justice. Introduces upper-division students to different ideas about the meaning of social welfare in the context of the development of the U.S. welfare state.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	325	Globalization and Socio-Economic Justice	Addresses a trend producing increasing interconnectedness of economies and societies, as well as creating new conflicts and divisions. Provides greater understanding of global forces, as well as the effect of these forces on global economic justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	G	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	329	Domestic Violence	Legal, historical, theoretical, and treatment aspects of domestic violence, including child abuse, woman battering, incest, and marital rape.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	332	Politics of Energy Policy and Justice	Examines the social and political dimensions that shape energy and environmental policy. Focuses primarily on the U.S. Introduces elements of regional or global policy where they influence or shape domestic politics and policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	335	Organized Crime	Nature of organized crime and its illegal activities, theories of containment, and efforts by justice agencies to counter its dominance in society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	350	Immigration and Justice	Examines immigration policy, history of immigration, refugee issues, labor force participation, gender, family, children, social networks, and transnationalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	352	The Global Politics of Human Rights	Examines political forces that have shaped gradual construction of an international human rights regime and a universal culture of rights, including civil and political rights, as well as economic, social, and cultural rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	360	Law and Social Control	Resolution of social issues through the application of law as an agent of social control. Nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	374	The Holocaust, Genocide, and Human Rights	Explores the psychological, social, historical, and political dimensions of the Holocaust and the phenomenon of genocide. Also examines the more recent international cases of genocide along with a discussion and analysis of the Universal Declaration of Human Rights.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	375	Justice and the Mass Media	Surveys the impact of mass media and popular culture on social justice, including criminal justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: 56 earned hours; 2.0 GPA; Non-Justice Stds student or specific students determined by Justice Stds Dept. OR a professional undergraduate Justice Studies student
JUS	382	Justice and Pop Culture	Explores the connections between the production, reproduction, and consumption of popular culture and the resultant impact on issues of justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	385	Justice and Everyday Life	Justice and injustice in everyday life and how small things can become legal issues. Role of language and interaction in social order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 24 semester hours; minimum 2.00 GPA
JUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: ENG 102, 105 or 108 with C or better; minimum 2.00 GPA; minimum 12 semester hours; If Justice Studies student, must be enrolled or earned J-1 Core Status or earned Capstone Status
JUS	404	Imperatives of Proof	Issues of evidence, rules of proof, establishing fact and identity in the justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA

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JUS	405	Economic Justice	Addresses economic issues and justice implications, including the interplay among economic conditions, race-ethnicity, class, and gender worldwide.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	408	Comparative Development of the Welfare State	Embodies a multidisciplinary perspective on welfare issues and exposes students to different ideas about justice beyond the United States. Allows them to better understand how and why states organize and deliver justice in different ways. Exposes students to cross-national variation in how history, culture, politics, and economics have shaped the development and content of different types of welfare states. Engages theoretical perspectives from political sociology and political economy concerning the emergence and future fate of these welfare states. Analyzes comparative analysis of three distinctive types of welfare states; Liberal, Conservative, and Social Democratic Welfare States, with particular emphasis on their varying capacity to combine economic efficiency with social justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	410	Punishment: Logic and Approach	Analyzes forms of punishment, how and why they have changed. Areas include philosophy, history, and social structure of punishment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	415	Gender and International Development	Examines the ways in which international development is gendered as well as women's rights as human rights in both national and international arenas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & G	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	420	Women, Work, and Justice	Examines gender inequality in the workplace, including the nature of women's work, theoretical issues, and models for promoting gender justice at work.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	422	Women, Law, and Social Control	Examines social, economic, and legal factors that are relevant to mechanisms of social control of women, including formal legal control and informal control through violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	425	Race, Gender, and Justice	Critically examines major theories, research findings, policies, and controversies concerning race, ethnicity, gender, and crime.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	430	Social Protest, Conflict, and Change	Analyzes historical and contemporary protest movements advocating equality based on race, gender, and sexual orientation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	432	Racial Justice	Racial inequality remains a dominant theme in understanding social, legal, and economic justice in the U.S. today. Explores controversial topics surrounding race and justice. Emphasizes current legal, economic, political, and social conceptual frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	435	Cinema and Justice	Tracks the conceptualizations of justice that have been and are currently conveyed in film, including but not limited to the relationship between crime and various notions of justice. Other depictions include social issues such as gender, race, or economics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	438	Human Differences: Dilemmas of Justice	General examination of democracy and human differences that expands into in-depth investigations of (1) racial difference and identity politics; (2) gender and sexual difference in democracy; and (3) cultural difference and the multiculturalism debate.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	440	Administration and Justice	Diversity issues; procedural justice and service delivery; relationships between state and economic forces, including processes of regulation; state administrative apparatuses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	444	Environment and Justice	Explores issues of environment and justice. Topics include justice and environmental racism, future generations, nonhuman life, global/non-Western societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	445	Surveillance and Society	Explore how surveillance technologies alter social life; the complex ways that they interact to produce security, fear, control, and/or vulnerability.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	450	Alternatives to Incarceration	Investigates various alternatives to incarceration; advantages/disadvantages; major issues including net widening, cost effectiveness, risk assessment, community crime prevention.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	452	Justice Issues in Israel and Palestine: The Political is Personal	Explores the justice issues related to the symbolic, historical, geographic, political, economic, religious, social, and cultural meanings of Israel and Palestine. Focuses on how and why the "political" is felt so very personally in everyday life in Israel and Palestine.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	460	Feminism and Justice	Explores feminist thought and critiques traditional political theories. Examines issues of racism, sexuality, and the law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	463	Discretionary Justice	Use/abuse, key issues/manifestations of discretion in legal system and other societal institutions. Theoretical/empirical linkages between discretion and discrimination, based on race, ethnicity, and gender.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	465	Death Penalty in the United States	Focuses on capital punishment in the United States; explores negotiation of law, politics, morality, public policy, and culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA

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JUS	467	Terrorism, War, and Justice	Examines the relationship among terrorism, war, and justice. Analyzes terrorism within the larger study of deviance and social control, comparative politics, hegemony, and international law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	469	Political Deviance and the Law	Examines the controversies created by political and deviant behavior, including a critical view of law as an agent of social control.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	470	Alternative Dispute Resolution	Critical examination of the tenets of alternative dispute resolution movement; exposure to the programs of ADR, including community and court based.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	473	Religion, Violence, and Conflict Resolution	Focuses on the ambiguous, often confounding role of religion in local and global conflict and the pursuit of peace.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisite: ENG 102, 105 or 108 with C or better; non-JUS or specific students determined by JUS dept; min 56 hours; 2.50 GPA OR prof/capstone undergrad or Justice Studies graduate; Students with credit for REL 482 or POS 473, may not enroll in JUS 473
JUS	474	Legislation of Morality	Addresses historical and contemporary issues related to social justice movements, law, and morality in a pluralistic society. Issues include AIDS, burial rights, homosexuality, poverty, prostitution, and racial discrimination.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	477	Youth and Justice	Critical examination of youth-related justice issues, including economic justice, violence against youth, delinquency, and the juvenile justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L or SB	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	479	Law and Disputing	Critical analysis of the controversies created by disputes, law, and other forms of social control.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L or SB	Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		Pre-requisites: Must be an Honors student
JUS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
JUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: ENG 102, 105 or 108 with a C or better; minimum 36 semester hours; minimum 2.50 GPA
JUS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-6		Pre-requisites: Must be an Honors student
JUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		
JUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-3		
JUS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Justice Studies MS or PHD student
JUS	501	Justice Theory	Theories and philosophies of social, economic, political, and criminal justice. Applies theories to contemporary justice issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	503	Crime and Social Causation	Theories of deviance and crime as they relate to social policies and specific response of the justice complex.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	509	Statistical Problems in Justice Research	Methodological problems of research design and statistical methods specific to justice studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	521	Qualitative Data Analysis and Evaluation	Analyzes qualitative data, e.g., field notes, in-depth interview transcripts, document analysis, coding, and retrieval with a microcomputer; qualitative evaluation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	542	American Indian Justice	Provides a broad overview of American Indian and Alaskan Native issues of justice and injustice in contemporary society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	550	Gender, Race, and Economic Justice	Provides a critical social scientific perspective on economic issues particularly as they relate to gender, race, and class equality. Examines issues of economic inequalities as they are distributed along the lines of gender and race. Components converge to identify the social justice ramifications of economic policy and economic conditions.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	555	Migration/Immigration and Justice	Explores the causes and consequences of immigration to the United States and the incorporation of immigrants into the American economy and society.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	560	Women, Law, and Social Control	Gender issues in the exercise of formal and informal mechanisms of social control, including economic, social, legal factors, both violent and nonviolent.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	570	Juvenile Delinquency	Study of delinquency, including causation theories. Alternative definitions of delinquency, official statistics, and the critique and analysis of the interaction between social institutions and youth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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JUS	575	Race, Gender, and the Law	Explores the law and social sciences literature on race, ethnicity, gender, and the legal order. Critically assesses the major contemporary theoretical and policy debates and controversies in the field from a variety of disciplinary and interdisciplinary lenses, setting these debates in their historical contexts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
JUS	579	Political Deviance	Seminar examines the politics of deviance by integrating the study of conflict with aspects of social organization, especially state formation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	588	Justice and the Mass Media	Analyzes the nature and impact of mass media messages about justice concerns for social order.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
JUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	610	Law and the Social Sciences	Analyzes the theoretical grounds underlying diverse studies of law and society; creation and administration of law; and jurisprudence and politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	620	Justice Research Methodology	Covers the epistemology of knowledge and method in justice research, history, and philosophy of social science and critical inquiry, as well as perspectives that link these concerns to research strategies. Explores the strengths and weaknesses of introduced methodologies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 500 with C or better
JUS	630	Data Analysis for Justice Research	Bivariate and multivariate techniques of data analysis and hypothesis testing for justice-related research and use of information and statistical programs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 509 with C or better
JUS	640	Theoretical Perspectives on Justice	Analyzes philosophical perspectives of justice; linkages between social science theory and justice constructs; application of justice to social issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student; JUS 501 with C or better
JUS	650	Advanced Qualitative Data Analysis	Advanced qualitative data collection and analysis techniques, including ethnography, in-depth interviews, field notes, coding, transcribing, content analysis, textual analysis.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Justice Studies MS or PHD student
JUS	660	Globalization and Economic Justice	Explores the political economy of globalization from a theoretical as well as practical standpoint. Sources used come from a variety of disciplines--sociology, political science, international relations, geography, and economics--all of which contribute unique theoretical and normative tools for analyzing the effect of global forces on economic justice.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student
JUS	669	Political Trials and Indigenous Justice	Focuses upon research on political trials, deviance, and conceptions of indigenous and contemporary justice.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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JUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
JUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
JUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
JUS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
JUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
KE	211	Chemical Process Calculations		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Chemical Engineering Program	2.		
KE	461	Process Control		Y	LEC	Y	CNV	Ira A. Fulton Engineering	Chemical Engineering Program	3.		
KIN	100	Introduction to Health and Wellness	Current concepts in health, exercise, and wellness. Emphasizes personal health, theories, attitudes, beliefs, and behaviors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	
KIN	101	Introduction to Kinesiology	Introduces the disciplines and professions associated with kinesiology, including an overview of historical and philosophical foundations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		
KIN	105	Physical Education Activity	Beginning instruction in a wide variety of sports such as aerobics, aquatics, racquet sports, physical conditioning, and golf. 3 hours per week. Y grade only. Fee.	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	105	Physical Education Activity	Beginning instruction in a wide variety of sports such as aerobics, aquatics, racquet sports, physical conditioning, and golf. 3 hours per week. Y grade only. Fee.	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	110	Research Analysis Laboratory	Introduces basic research areas in the discipline of kinesiology. Topics may include the following: developmental learning, exercise physiology, exercise psychology, exercise testing, metabolic physiology, motor control, motor learning, research journals and societies, research methods, research writing.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-2		Pre-requisites: Must be a student in one of the following: Pre Sec Ed - Physical Ed, Exercise Sci/Phys Educ or Kinesiology.
KIN	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-3		Prerequisite: Must be a freshman with 25 or less total earned hours
KIN	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	205	Physical Education Activity	Intermediate levels. Continuation of KIN 105. 3 hours per week. Fee.	Y	LEC	Y	GNA	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		
KIN	310	Collegiate Sports	Participation in men's or women's intercollegiate competition. May be repeated for 4 hours 1 per year. Y/E grade.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1.		
KIN	334	Functional Anatomy and Kinesiology	Muscles, bones, joints, and nerves and how they produce movement. Emphasizes muscle origins, insertions, actions, and innervations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed BIO 201 or ZOL 201 with a grade of C or greater or be currently enrolled; Must have completed BIO 202 with a grade of C or greater or be currently enrolled
KIN	335	Biomechanics	Basic anatomical and mechanical principles applied to human movement. Emphasizes kinematic and kinetic concepts. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: BIO 201 (ZOL 201) and BIO 202, PHY 111, and KIN 101 (or KIN 200) with C or better; One of the following courses: MAT 170, 210, 251, 270, 271, or 272 with a C or better
KIN	340	Physiology of Exercise	Physiological mechanisms of acute responses and chronic adaptations to exercise. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: KIN 101 (or KIN 200), BIO 201 (ZOL 201) and BIO 202 (ZOL 202) and one of the following courses: CHM 101, 113, 114, 115, 116, 117, or 118 with C or better
KIN	345	Motor and Developmental Learning	Principles of motor skill acquisition across the life span, focusing on the learner and the learning environment. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: KIN 101 (or KIN 200) with a C or better; PGS 100 or PGS 101 with a C or better; BIO 201 (ZOL 201) with a C or better
KIN	348	Psychological Skills for Optimal Performance	Applies psychological techniques and their use to improve effectiveness and performance in sport and related areas.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	
KIN	352	Psychosocial Aspects of Physical Activity	Interrelationships between physical activity and psychosocial variables, including socialization, cultural values, aggression, and motivation. Includes the psychological benefits of physical activity and exercise adherence.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB & C	Pre-requisites: KIN 101 (or KIN 200) with C or better; PGS 100 or PGS 101 with C or better
KIN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		

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KIN	412	Biomechanics of the Skeletal System	Biomechanics of tissues, structures, and major joints of the musculoskeletal system. Discussion of injury mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed KIN 335 with a grade of C or better; If you received credit in KIN 512, you may not enroll in KIN 412
KIN	413	Qualitative Analysis in Sport Biomechanics	Develops systematic approach for detecting and correcting errors in human performance using anatomical and mechanical principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 335 or KIN 335 with a grade of C or greater or be currently enrolled in KIN 335
KIN	414	Electromyographic Kinesiology	Muscular contributions to human movement, muscle mechanics, electrophysiological basis, and practical application of electromyography. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 335, KIN 335 or PED 335 with a grade of C or greater or be currently enrolled in KIN 335; Must have completed EPE 240, KIN 340 or PED 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	421	Human Motor Control	Focuses on understanding how the human central nervous system controls, regulates, and learns movements.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	422	Motor Control in Special Populations	Discusses principles of motor control theories and related practical applications for certain special developmental populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	423	Motor Control and Aging	Functional and behavioral changes to the motor control system as humans age, how specifically it impacts motor control and learning.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 345 or KIN 345 with a grade of C or greater or be currently enrolled in KIN 345
KIN	440	Exercise Biochemistry	Study of bioenergetics and metabolism of cellular (skeletal muscle, heart, and liver) organelles and proteins during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater in KIN 340. Students who have credit for KIN 532, may not enroll in KIN 440
KIN	441	Physiology of Women in Sport	Physiological aspects of women engaging in physical activity. Emphasizes factors affecting performance and health throughout life.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater in KIN 340. Students who have credit for KIN 531, may not enroll in KIN 441
KIN	442	Fuel Metabolism	Discusses current research concerning the metabolism of carbohydrate, fat, and protein during exercise. Credit is allowed for only KIN 442 or 536.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater in KIN 340. Credit is allowed for only KIN 442 or 536.
KIN	443	Exercise Endocrinology	Discusses current research and theory concerning hormonal changes during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or better in KIN 340. Students who have credit for KIN 533, may not enroll in KIN 443
KIN	444	Metabolic Adaptations to Exercise Training	Examines physiologic adaptations to exercise training as they relate to metabolism and tissue functions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed EPE 340, PED 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	445	Exercise Physiology for Children and Adolescents	Understanding the influence of physical growth and maturation on the development of the functional capacities of the exercising child. Credit is allowed for only KIN 445 or 535.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	448	Applied Sport Psychology	Psychological theories and techniques applied to a sport to enhance the performance and personal growth of athletes and coaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed EPE 352, PED 352 or KIN 352 with a grade of C or greater in KIN 352. Students who have credit for KIN 520, may not enroll in KIN 448
KIN	450	Biopsychosocial Perspectives on Physical Activity and Health	Uses a biopsychosocial perspective to examine the interrelationships on physical activity and health (physical and mental).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must have completed either EPE 352 or KIN 352 with a grade of C or greater or be currently enrolled in KIN 352
KIN	452	Exercise Psychology	Contemporary research and theory as related to human behavior and health in an exercise setting.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	SB	Pre-requisites: Must have completed EPE 352, PED 352 or KIN 352 with a grade of C or greater in KIN 352. Students who have credit for KIN 522, may not enroll in KIN 452
KIN	460	Theory of Strength Training	Research and theories on developing muscular strength; programs for developing muscular strength.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.	L	Pre-requisites: Must have completed either EPE 340 or KIN 340 with a grade of C or greater or be currently enrolled in KIN 340
KIN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-6		Pre-requisites: Must be an Honors student
KIN	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-6	L	Pre-requisites: Must be an Honors student
KIN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		Pre-requisites: Academic Level may not equal Freshman
KIN	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-7		Pre-requisites: Must be BS Kinesiology student; Seniors only
KIN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-3		
KIN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	501	Research Statistics	Statistical procedures; sampling techniques; exercise testing, exercise prescription, hypothesis testing, and experimental designs as they relate to research publications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	505	Applied Exercise Physiology Techniques	Investigative techniques used in the applied exercise physiology lab. Emphasizes pulmonary function, body composition, and cardiorespiratory assessment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)

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KIN	510	Introduction to Biomechanics Research Methods	Applies mechanics to human movement analysis. Includes consideration of 2-D imaging techniques, force measurement, electromyography, and data processing methods.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	512	Biomechanics of the Skeletal System	Biomechanics of tissues, structures, and major joints of the musculoskeletal system. Discusses injury mechanisms.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 412 or 512
KIN	520	Applied Sport Psychology	Psychological theories and techniques applied to a sport to enhance the performance and personal growth of athletes and coaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 448 or 520
KIN	521	Motor Development, Control, and Learning	Theory and research on motor skill acquisition, including learning/control and development (i.e., growth, children and exercise, and development learning).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	4.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	522	Exercise Psychology	Contemporary research and theory as related to human behavior and health in an exercise setting.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 452 or 522
KIN	530	Exercise Physiology	Immediate and long-term adaptations to exercise with special reference to training and the role of exercise in cardiovascular health.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	531	Physiology of Women in Sport	Physiological aspects of women engaging in physical activity. Emphasizes factors affecting performance and health throughout life.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 441 or 531
KIN	532	Exercise Biochemistry	Understanding the basic biochemical principles and enzyme pathways involved in energy transduction during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 440 or 532
KIN	533	Exercise Endocrinology	Discusses current research and theory concerning hormonal changes during exercise.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student; Credit is allowed for only KIN 443 or 533
KIN	535	Exercise Physiology for Children and Adolescents	Understanding the influence of physical growth and maturation on the development of the functional capacities of the exercising child. Credit is allowed for only KIN 535 or 445.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	536	Fuel Metabolism	Discusses current research concerning the metabolism of carbohydrate, fat, and protein during exercise. Credit is allowed for only KIN 536 or 442.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking). Students who have credit for KIN 442, may not enroll in KIN 536
KIN	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Kinesiology	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	598	Special Topics	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	610	Advanced Topics in Biomechanics	3-D imaging techniques, data analysis theory, and integration of biomechanics research tools; includes original research project.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisites: Must be a Post-Bacc Undergrad or a Graduate student (Non-degree or degree seeking)
KIN	621	Motor Learning/Control	Discussion of contemporary research issues in motor learning and control. Includes behavioral and neurophysiological issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Kinesiology	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
KIN	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
KIN	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		
KIN	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Kinesiology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Kinesiology	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Kinesiology	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Kinesiology	1-15		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
KOR	101	First-Year Korean I	Pronunciation, grammar, elementary conversation, and development of basic reading and writing skills, including Han'gul. Lecture, recitation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
KOR	102	First-Year Korean II	Continuation of KOR 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:KOR 101 with a grade of D or better, or currently enrolled
KOR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	201	Second-Year Korean I	Continual development of communication skills. Increased emphasis on reading and writing, vocabulary building, and review of fundamentals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: KOR 102
KOR	202	Second-Year Korean II	Continuation of KOR 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites: KOR 201
KOR	250	Korean Culture and Society	Surveys Korean culture and society, covering history, religious traditions, gender, and popular culture.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
KOR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	313	Third-Year Korean I	Continued development of ability to communicate orally and in writing. Exposure to a variety of Korean written styles.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: KOR 202
KOR	314	Third-Year Korean II	Continuation of KOR 313.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: KOR 313
KOR	347	Korean Film and Literature	Introduces aspects of Korean history, culture, and society through Korean film and literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	
KOR	350	Women of Korea	Examines the changing role and status of women in modern Korea in relation to political and cultural changes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	H	
KOR	353	Folk Religions of Korea	Introduces forms of folk religions in Korea: shamanism, village rituals, ancestor-worship, fortune-telling, geomancy, and folk elements in major traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
KOR	354	Religious Traditions of Korea	Examines major religious traditions of Korea: Buddhism; Christianity; Neo-Confucianism; indigenous practices and their development through political, cultural, and social frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
KOR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
KOR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
KOR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
KOR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
KOR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
KOR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAA	345	Professional Practice Seminar	Landscape architecture practice including contracts, project and office management, liability, licensing, and professional development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Landscape Architecture student; Co-requisite: LDE 362
LAA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		Pre-requisites: Landscape Architecture BSLA plan; Co-requisite: LDE 461
LAP	485	International Field Studies in Landscape Architecture	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	Y	FLD	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
LAP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		
LAP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LAP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LAT	101	Elementary Latin	Basic Latin grammar with an emphasis on developing reading skills. For beginning students only.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
LAT	102	Elementary Latin	Continuation of LAT 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: LAT 101
LAT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
LAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	201	Intermediate Latin I	Final semester of grammar.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	HU	Pre-requisites: LAT 102
LAT	202	Intermediate Latin II	Beginning reading of Latin authors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	HU	Pre-requisites: LAT 201
LAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAT	421	Roman Literature	Readings in the Latin masterpieces. Authors read change each year in accordance with needs of the class. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: LAT 202
LAT	422	Roman Literature	See LAT 421.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: LAT 202
LAT	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
LAT	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
LAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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LAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
LAT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
LAT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
LAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
LAW	105	The Structure and Methodology of the American Legal System	What is law? What is the structure of the American legal system? What does it mean to understand law in the context of that system? How is this system effective and problematic and how does its evolution over time change our perceptions of and relationships with those who are part of it? Provides answers to these and other questions while simultaneously developing a working understanding of American law, its practicalities, and externalities. Takes the form of a comprehensive inquiry into the legal system, its origins, structures, applications, success, failure, and decision-making processes. In asking probing questions about the system and its nature, explores the values and philosophies that inform our American conception of the law and its role in society.	N	LEC	N	OPT	College of Law	College of Law Dean's Office	3.		
LAW	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	College of Law Dean's Office	1-4		
LAW	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	LAW	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1.		Pre-requisites: Freshman standing
LAW	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LAW	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LAW	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LAW	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OP6	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	515	Contracts	Explores common law legal method and the structure of Article 2 of the U.C.C. in the context of issues of contract formation.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3-5		
LAW	516	Criminal Law	Substantive law of crimes.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	517	Torts	Legal protections of personality, property, and relational interests against physical, economic, and emotional harms.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	518	Civil Procedure	Explores the structure of a lawsuit and techniques of alternative dispute resolution. Specific topics include commencement of suit, joinder of parties, discovery, pretrial motions, subject matter and personal jurisdiction, res judicata, collateral estoppel, and choice of law under the Erie doctrine.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3-5		
LAW	519	Legal Method and Writing	Examines methods used to analyze legal problems. Reviews precedent statutory construction and basic res judicata problems. Use of basic legal writing formats.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	520	Contracts	Continuation of LAW 515 focusing on contract interpretation.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2.		

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LAW	522	Constitutional Law I	Role of courts in the federal system, distribution of powers between state and federal governments, and the role of procedure in litigation of constitutional questions.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	523	Property	Indicia of ownership, found property, estates in land, landlord tenant, nonpossessory interests in property, nuisance, land use planning, and transfers of interests in property.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	524	Legal Advocacy	Continuation of LAW 519.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	526	Property	Nonpossessory interests in property (easements, covenants, servitudes); nuisance; land use planning; and transfers of interests in property.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	527	Civil Procedure	Continuation of LAW 518; addressed subjects in LAW 518 in greater depth as well as personal jurisdiction, res judicata, collateral estoppel, and choice of law under the Erie doctrine.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	529	Law and the Regulatory State	Introduces the importance, origins, and methods of interpreting statutes, regulations, and court rules.	N	LEC	N	OP6	College of Law	Sandra Day O'Connor College of Law	3.		
LAW	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	OP6	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	GNA	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	597	Visiting Student Program		N	LEC	N	GNA	College of Law	Sandra Day O'Connor College of Law	0.		
LAW	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OP6	College of Law	Sandra Day O'Connor College of Law	1-4		
LAW	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	601	Antitrust Law	Legislation and its implementation to prevent monopoly and business practices in restraint of trade, including restrictive agreements involving price-fixing, trade association activities, and resale price maintenance.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisites: College of Law student
LAW	602	Civil Procedure II	Focuses on the Rules of Civil Procedure and how lawyers use the Rules in litigating civil cases from initiation through the pre-trial stages.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		
LAW	603	Conflict of Laws	Problems arising when the operative facts of a case are connected with more than one state or nation. Choice of law, bases of jurisdiction, effect of foreign judgments, and underlying federal and constitutional issues.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	604	Criminal Procedure	Nature of the criminal procedural system with special focus on constitutional protections for the accused.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisites: College of Law student
LAW	605	Evidence	Principles and practice governing the competency of witnesses and presentation of evidence, including the rules of exclusion and rules of lawyer, judge, and jury under the adversary system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisites: College of Law student
LAW	606	Federal Income Taxation	Federal income tax in relation to concepts of income, property arrangement, business activity, and current tax problems, with focus on the process of tax legislation and administration.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisites: College of Law student
LAW	608	Business Associations I	Partnerships, limited partnerships, and small business corporations. Includes a brief introduction to accounting. Detailed analysis of the problems of forming a close corporation, state law duties of care and loyalty, management, dividends and redemptions, issuance of stock, internal dispute resolution, dissolution, and the general law of derivative actions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisites: College of Law student
LAW	609	Business Associations II	Interrelationship of federal and state law and a brief introduction to corporate finance (1933 Act). Broad overview of large company regulations including reporting rules, proxy regulation, insider trading, sale of control, tender offers and takeovers, and going private.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisites: College of Law student
LAW	610	Advanced Criminal Procedure	Topics in criminal procedure, with emphasis on legal constraints on grand jury investigations, police practices, pretrial release, preliminary hearings, prosecutorial discretion, and plea bargaining.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	611	Estate and Gift Tax	Tax laws relating to transfer of wealth both at death and during lifetime, including federal estate tax, gift tax, and income taxation of estates and trusts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: Must be College of Law student

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LAW	612	Family Law	Legal and nonlegal problems that an individual may encounter because of a situation as a family member.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	613	Federal Courts	Federal judicial system; relationship of federal and state law; jurisdiction of federal courts and their relation to state courts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	614	International Contracts	Explores the laws applicable to international contractual relations, focusing heavily on the United Nations Convention on Contracts for the International Sale of Goods. One of several offerings in the field of International Business Transactions, touches on choice of law rules and a comparison of selected UCC with CISG provisions; a comparison of the contract law of selected foreign nations with the UCC; and the law of contracts in the United States. The casebook is heavily oriented toward a problem method of study.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	615	Public International Law	Role of law in international disputes. Considers drafting and interpretation of treaties and multilateral conventions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	616	Jurisprudence	Introduces legal philosophy, with readings on the nature of law and legal reasoning, the relationship between law and morality and equality and social justice.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	617	Genetics and the Law	Provides background on genetics and recent genetic advances; addresses the legal consequences and issues associated with such advances.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	618	Decedent's Estates	Substantive concepts involved in transmitting wealth, including interstate succession, wills and will substitutes, the modern trust as a family protective device, creation of future interests in a planned estate, social restrictions of a nontax nature, and methods of devoting property to charitable purposes.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	619	Payments	Law of credit obligations and payment devices. Focuses on Articles 3, 4, and 4A of the Uniform Commercial Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	620	Civil Rights Legislation	Coverage of the rights and remedies provided by federal civil rights legislation, principally, the key provisions of the Reconstruction Era Civil Rights Acts, portions of the employment discrimination legislation, and voting rights legislation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	621	Sales	Advanced issues involving the formation and interpretation of sales and lease contracts. Focuses primarily on Articles 2 and 2A of the Uniform Commercial Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	622	Secured Transactions	Secured transactions under Article 9 of the Uniform Commercial Code and other relevant sections. Overview of the creation, perfection, and priority effects of security interests. Financing of business enterprise and consumer credit.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	623	Commercial Torts	Involves an analysis of actionable wrongs against a business entity or against proprietary rights held by that entity, covering the entire spectrum of private remedies for competitive wrongs.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	624	Community Property	Property rights of husband and wife; the Arizona community property system; homestead.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-2		Pre-requisite: College of Law student
LAW	625	Constitutional Law II	Fundamental protection for person, property, political, and social rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	626	Advanced Legal Writing	Helps students attain an advanced level of writing proficiency by exposing them to a broad range of legal documents.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisites: Must be Juris Doctor Candidate (LWJDJD); Students who have credit for LAW 634, may not enroll in LAW 626
LAW	627	Corporate Taxation	Problems in taxability of the corporation, corporate distributions, and corporate reorganizations.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	628	Creditor-Debtor Relations	Creditors' remedies in satisfaction of claims and debtors' protection and relief under bankruptcy, other laws.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	629	Employment Law	Employment law topics including testing, privacy, OSHA, FLSA, benefits, worker's compensation, rights to compensation, workplace emotional injuries, termination, and sexual harassment.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	630	Employment Discrimination	Focuses primarily on Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, and the Americans with Disabilities Act.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	631	Environmental Law	Litigation, administrative law, and legislation relating to problems of environmental quality. Topics covered may include air and water pollution, toxic substances, pesticides, and radiation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	632	Indian Law I	Inquiry into legal problems special to American Indians and tribes.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	633	Law, Litigation, and Science	Fills a gap in the education of most lawyers, namely, how to effectively think about and use empirical evidence.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	635	Juvenile Law	Special problems in the juvenile system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student

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LAW	636	Land Use Regulation	Legal problems in the regulation and control of land development by state and local governments. Administration of zoning, subdivision, and other planning controls; issues of fairness and procedure in the utilization of such controls.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	637	Lawyering Theory and Practice	Issues of competency and professionalism in the practice of law.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	4.		Pre-requisite: College of Law student
LAW	638	Professional Responsibility	Emphasizes the Model Rules and Model Code that govern the professional responsibility of lawyers and their interpretation and application.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	639	Natural Resource Law	Examines the constitutional basis for federal land management and the different kinds of public lands management schemes (e.g., parks, forests, wildlife refuges), emphasizing acquisition of right to, and regulation of, the different uses of public lands and resources (e.g., mining, grazing, timber, wildlife habitat, recreation).	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	640	Securities Regulation	Selected problems arising under the major statutes concerned with regulating the securities market.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	641	Securities Regulation II	Securities laws affecting the purchase and sale of publicly-traded securities.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	642	White Collar Crime	Examines the ways in which white collar crime is prosecuted, principally in the federal system.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	643	Water Law	Acquisition of water rights; water use controls; interstate conflicts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	645	Patent Law	In-depth examination of substantive patent law as it applies to the commercialization and enforcement of patent rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	646	Copyright Law	Legal rights in original forms of human expression.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3.		Pre-requisite: College of Law student
LAW	647	Mass Tort Litigation	Examines unique procedural and substantive issues that arise in mass tort litigation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	648	International Intellectual Property	Considers patents, copyrights, and trademarks under international law and the major international treaties.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	649	Scientific Evidence	Examines the use of scientists and scientific tests or studies in criminal and civil litigation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	650	Health Law	Introduces health law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	651	Public Health Law	Addresses the relationship between the state and the population's health.	N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	652	Bioethics and the Law	Covers a range of issues relating primarily to human reproduction and life and death decisions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	653	Bankruptcy	Covers basic bankruptcy law and practices.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	654	Business Organizations	Covers the primary forms of business organizations: partnerships, limited partnerships, limited liability companies, and corporations.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	3-4		Pre-requisite: College of Law student
LAW	655	Chapter 11	Covers the law and practice of reorganizing business entities under Chapter 11 of the United States Bankruptcy Code.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	656	Valuing Real Estate and Closely-Held Businesses	Focuses on the valuation of interests in real property and closely-held businesses.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	657	Private Property Rights	Explores the conflict between property rights and the right of the government to acquire private property for public use.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	658	Arizona Constitutional Law	Examines the basic provisions of the Arizona Constitution and the judicial decisions interpreting those provisions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre Requisites: Law Students Only
LAW	659	Intellectual Property Portfolio Management	Covers business/law dynamics in the technology sector.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LAW	660	Advanced Estate Planning	Covers advanced estate planning and estate administration issues.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	661	Constitutional Literacy	Academic complement to the Marshall-Brennan Constitutional Literacy Program where law students teach constitutional law to high school students.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		

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LAW	662	Alternative Dispute Resolution and Employment Law	The use of alternative dispute resolution has been most extensive in the area of employment law. Mediation and arbitration are widely used not only in the collective bargaining setting, but also in virtually every aspect of the employment relationship. Offers a comprehensive review of the subject with special emphasis on the extensive body of law that has developed in regulating employer-imposed arbitration. Discussion of mediation includes use of simulations to enable the students to understand how mediation can effectively resolve employment disputes. Opportunities to observe real mediations of employment disputes. Experienced attorneys discuss the "real world" use of employment ADR from a plaintiff's and a defendant's perspective.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	663	Prisoner Rights	Provides overview and basic understanding of the rights of prisoners within the United States penal system. Emphasizes prisoners' civil rights under the U.S. Constitution and 42 U.S.C. Section 1983, including claims such as access to courts, conditions of confinement, religious freedoms, excessive use of force, ineffective medical assistance. Analyzes prison culture and models for reform, state post-conviction rights of appeal, the death penalty, parole, and commutation. Includes optional tour of a maximum security prison (which is much different from the county jail tour) and guest speakers (correctional officers and former inmates).	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	664	Intellectual Property	Surveys the laws conventionally grouped as intellectual property, with a focus on patents, copyrights, and trademarks. Explores the policy rationales for each body of law. Particularly relevant for two types of students: (a) those who are unsure they want to specialize in IP and want a general introduction, and (b) those who do not have room in the schedules to take all of the upper-level offerings here at ASU. Not appropriate for students who have already taken the upper-level courses in copyright, trademark, and patents; students who have taken these offerings may be withdrawn.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	665	Fundamentals of Legal Drafting	Fundamental writing skills applicable to drafting normative legal documents.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	697	Visiting Student Program		N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	0.		
LAW	701	Arbitration	Examines the Federal Arbitration Act and the Uniform Arbitration Act as it has been adopted in Arizona.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	702	Alternative Dispute Resolution	Broad exposure to methods of settling disputes in our society such as mediation, arbitration/conciliation, and negotiation, including examination of the current litigation model.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	703	Law, Science, and Technology	Legal mechanisms used in dealing with various issues raised by contemporary science and technology. Explores current legal responses to science and technology.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	704	Indian Law II	Surveys the federal legal doctrines surrounding Indian ownership and exploration of resources.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	705	Media Law	Examines First Amendment principles and statutory and regulatory requirements with respect to the conventional print and broadcast media, as well as recent technologies such as cable.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	706	Immigration Law	Explores political, economic, social, and legal issues concerning immigration. Specific topics covered include citizenship and naturalization, denaturalization, deportation, and refugee rights and asylum.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	707	Elder Law	Looks at legal and policy questions related to aging individuals and an older society.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	708	Gender, Sexuality, and the Law	Examines assumptions made in the law about gender and sexuality and the impact of those assumptions on the application of the law.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	709	International Human Rights	International rules and procedures governing the protection of human rights.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	710	Real Estate Tax Planning	Discusses topics, including but not limited to real estate investments as tax shelters, alternative acquisition finance devices, refinancing techniques, and nontaxable exchanges.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	712	Religion and the Constitution	In-depth study of the establishment and free exercise clauses of the First Amendment to the U.S. Constitution.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	713	Tribal Law and Government	Analyzes particular problems in tribal law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		

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LAW	715	Sports Law	Unique legal problems relating to professional sports, including their relationship to antitrust laws, the nature of player contracts, and associated tax problems.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	718	Economic Development in Indian Country	Focuses on the unique legal, economic, and political issues confronting tribal governments in developing diversified reservation economies.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	719	International Indigenous Rights	Examines the developments in recognizing indigenous rights in people's systems of international law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	720	Indian Gaming Law	Surveys the law surrounding the Indian gaming industry.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	721	Education and the Law	Current legal problems affecting institutions of higher education, faculty, students, and governing boards.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	722	Mexican Law	Comparative overview of Mexican law. Poses questions regarding the proper role and function of a legal system.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	723	Cultural Resources Law	Focuses on the protection of Native American cultural resources and religions.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	724	Privacy	Traces the development of privacy law with special attention to contemporary challenges.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	725	Critical Race Theory	Focuses on the idea of "race" as a social/political construct and examines the impact of American law on the construction of race. Provide historical and legal background necessary to understand the significance of race within American law and policy. Evaluate a number of legal frameworks that address issues of race and ethnicity in various contexts (e.g. segregation laws, civil rights law, federal Indian law, international human rights law). Assesses various jurisprudential accounts evaluating the ethical and moral underpinnings of the law. Critical race theory is known as a jurisprudential framework that is often critical of standard liberal approaches. Evaluates the critiques of liberalism and the scholarship of both liberal and critical theorists.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	733	Negotiation	Explores alternative models of negotiated dispute resolution, as well as the roles of lawyer and client in the negotiation process. Extensive use of simulation exercises.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	734	Products Liability	Traces the development of products liability law; analyzes the major issues currently confronting the courts in this area.	N	SEM	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		Pre-requisite: College of Law student
LAW	735	Teaching Assistant	Legal writing teaching assistants assist a writing professor with various tasks throughout the semester.	N	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-4		
LAW	736	Advanced Legal Research Seminar	Focuses on a rigorous review of basic print and electronic resources and strategies for conducting legal research, federal/state.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	737	Cults and Alternative Religions	Provides opportunity to study laws and policies governing cults. While the definition of a "cult" will be a topic of initial study in the seminar, it may be conceived of loosely as a group with a charismatic leader whose members are persuaded to relinquish their self-identities and material possessions in furtherance of the group's goals. In addition to analyzing the definition of a cult, the first part of the seminar discusses the various types of cults, studying particular cults, and learning about cultic activities. The remainder covers domestic and foreign legal and policy issues generated by cults, including the legal rights of cultic organizations, anti-cult organizations, cult members, and cult members' families. Covers conventional religions that are conceptually similar to cults, to the degree that religious movements fall outside the mainstream.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	738	Trial Advocacy	Confronts issues of trial advocacy through simulation of a variety of aspects of trial practice in a mock court setting.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		
LAW	739	Economics and the Law Seminar	Explores premises of the law and economics movements and their applications to property, contract, and tort law.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	745	The Supreme Court	Intensive examination of selected current decisions of the U.S. Supreme Court.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-3		
LAW	768	International Business Transactions	Introduction to U.S., foreign, and international law regulating cross-border business transactions and to the structure of cross-border business deals.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2-4		Pre-requisite: College of Law student
LAW	770	Law Journal	Academic credit for successful completion of editorial work by a member of the staff of Arizona State Law Journal. May be repeated for credit for a maximum of 5 semester hours.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		Pre-requisite: College of Law student

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LAW	771	Jurimetrics Journal	Academic credit for successful completion of editorial work by a member of the staff of the Jurimetrics Journal of Law, Science, and Technology.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	1-3		Pre-requisite: College of Law student
LAW	772	Defender Clinic	Placement in the Public Defender Clinic and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	773	Civil Justice Clinic	Placement in the Civil Practice Clinic and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	774	Criminal Practice Clinic	Placement with various prosecutor offices in the Phoenix area and related classroom component.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	775	Mediation Clinic	Study of the mediation process and experience as mediators in cases pending before the justice courts and administrative agencies.	N	LEC	N	OP5	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	776	Indian Legal Clinic	Provides law students the opportunity to participate in cases dealing with native peoples and Indian issues.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	777	Technology Ventures Clinic	Allows students to gain real-world experience in legal areas such as patentability of inventions, patent drafting, and technology valuation.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	778	Immigration Law and Policy Clinic	Live-client clinic where students represent Latinos, particularly children, in immigration proceedings and the immigration courts.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	1-6		
LAW	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	781	Independent Study	With the approval of a faculty member, a student may research a legal subject of special interest and prepare a paper suitable for publication.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	782	Independent Study	See LAW 781.	N	LEC	N	OPT	College of Law	Sandra Day O'Connor College of Law	2.		
LAW	783	Field Work	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-3		
LAW	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		Pre-requisite: College of Law student
LAW	785	Externship	Supervised, practical lawyering in an external placement proposed by the student or established by a sponsoring agency and approved by the Sandra Day O'Connor College of Law. In addition, an associated academic component is established by the student with a member of the faculty.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Law	Sandra Day O'Connor College of Law	1-12		
LAW	795	Cont Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	College of Law	Sandra Day O'Connor College of Law	1.		
LAW	797	Visiting Student Program		N	LEC	N	LAW	College of Law	Sandra Day O'Connor College of Law	0.		
LDE	361	Landscape Architecture I	Site planning: analysis of natural and cultural features; site systems and implications for plan making and design. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture students only; Co-requisites: LTC 343
LDE	362	Landscape Architecture II	Site design: site-specific design of configured space by the creative development of form. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 361 (or PLA 361) with C or better
LDE	363	Landscape Planting Design	Functional and aesthetic use of plants in arid-region landscape design. Explores design philosophies through planting design problems.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Landscape Architecture student; Co-requisites: LTC 344, LDE 461
LDE	461	Landscape Architecture III	Landscape ecological planning: collection and application of ecological data relevant to planning and design at landscape scale. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 362 with C or better; Co-requisites: LTC 344; LDE 363
LDE	462	Landscape Architecture IV	Advanced landscape architecture: integrative capstone studio with multifaceted design problems. fee	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	5.		Pre-requisites: Landscape Architecture student; LDE 461 with C or better; Co-requisite: LTC 446; LPH 411
LDE	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
LDE	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student

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LDE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LDE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LDE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LDE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LES	305	Legal, Ethical, and Regulatory Issues in Business	Legal theories, ethical issues, and regulatory climate affecting business policies and decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W. P. Carey BA or BS student, OR non-business student with minimum 2.5 ASU cum GPA and minimum 56 earned hours, OR be a non-degree student with minimum 2.5 ASU cum GPA, OR be a graduate student.
LES	306	Business Law	Legal and ethical aspects of contracts, sales, commercial paper, secured transactions, documents of title, letters of credit, and bank deposits and collections.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-Requisites: Student in Accountancy; Global Management student in Conditional or Professional Business status
LES	380	Consumer Perspective of Business Law	Role of law as it affects society. Uses case studies to present principles that govern business and consumers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Must have a minimum GPA of 2.00; must have a minimum total earned hours of 56 or be a graduate or non-degree seeking student
LES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: Minimum 2.00 GPA; Minimum 56 hours OR Non-degree seeking student
LES	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
LES	532	Negotiation Agreements	Develops negotiation competencies to build partnerships and create lasting agreements with internal/external customers, suppliers, work teams, and external constituencies.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: MBA student
LES	579	Legal and Ethical Issues for Business	Managerial decision making within the bounds of ethics, social responsibility, and legal and regulatory constraints. Strong international focus.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA student
LES	581	Essentials of Law for Managers	Studies legal components of business decisions, multiple aspects of law affecting business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1.5-3		
LES	582	Ethical Issues for Managers	Studies ethical decisions; the role of business in society.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	1.5-3		
LES	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
LES	305	Legal, Ethical, and Regulatory Issues in Business	Legal theories, ethical issues, and regulatory climate affecting business policies and decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BA or BS student, OR non-business student with minimum 2.5 ASU cum GPA and minimum 56 earned hours, OR be a non-degree student with minimum 2.5 ASU cum GPA, OR be a graduate student.
LES	411	Real Estate Law	Legal and ethical aspects of land ownerships, interests, transfer, finance development, and regulations of the real estate industry.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA OR Non-degree or Graduate student.
LIA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
LIA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
LIA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		
LIA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6	L	Pre-requisites: Must be an Honors student
LIA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-14		
LIA	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-6		
LIA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
LIA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-3		
LIA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		
LIM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	301	International Organizational Behavior	Educates students to lead others in the intra- and interorganizational relationships in multinational firms operating in complex global environments. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management and Leadership student in the Leadership in International Management plan with either a Professional or Conditions status.
LIM	303	Negotiation and Conflict Resolution Strategies Across Cultures	Explores the impact of cultural differences on international negotiations and subsequent application of this knowledge to conflict resolution processes. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
LIM	401	Advanced Topics in International Leadership	Provides an overview of the most current leadership theories and practices to develop students as leaders in crosscultural contexts. May be repeated once for credit.	N	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
LIM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: must be a School of Global Management student in the Leadership in International Management plan with either a Professional or Conditional status AND completed LIM 301 with a grade of C or greater or be currently enrolled.
LIM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-7		
LIM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		
LIN	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	510	Linguistics	Overview of linguistics, its subfields, and some of its applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Students who have credit for BLE 537, may not enroll in LIN 510
LIN	511	Phonetics and Phonology	Current trends in phonological theory and its basis in acoustic and articulatory phonetics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	513	Semantics	Current approaches to linguistic meaning with particular attention to English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	514	Syntax	Analyzes syntactic structures using a generative theoretical model with a focus on English.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		

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LIN	515	American English	Development of the English language in America, including regional and social varieties, and its relationship to other immigrant and native languages.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	516	Pragmatics and Discourse Analysis	Studies language use in context and language structures in spoken and written texts.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	517	History of the English Language	Surveys the development of the English language, with an emphasis on major linguistic transformations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: Students who have credit for ENG 413, many not enroll in LIN 517
LIN	520	Second-Language Acquisition Theories	Theories of second-language acquisition, including the linguistic, cognitive, and sociocultural aspects.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	521	Methods of Teaching English as a Second Language	Methods of teaching English as a second language, language teaching trends, practical applications, and the teaching of different skills.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	522	Grammar for TESL	Surveys major grammatical structures in English and how they can be taught to ESL speakers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	523	Language Testing and Assessment	Introduces the theory and practice of language test construction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	524	Curriculum Design and Materials Development	Practical guide to curriculum and materials development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of English	1-12		
LIN	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
LIN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
LIN	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Department of English	1-12		
LIN	610	Advanced Studies in Linguistics	Different topics such as morphology, semantics, typology, history of linguistics.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	614	Advanced Studies in Syntax	Focuses on morphosyntactic feature checking, movement, phrase structure, and their crosslinguistic differences. May be repeated for credit when topics vary.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	615	Advanced Studies in Sociolinguistics	Language in its social setting, e.g., social variation among native speakers, sociolinguistics aspects of second-language acquisition, and language policy.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	616	Advanced Studies in Discourse Analysis	Advanced analysis of spoken and written discourse emphasizing different methodological and theoretical issues.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	617	Advanced Studies in Historical Linguistics	Overview of theories on language change, the history of languages, and of methods in historical linguistics.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	620	Advanced Studies in Second-Language Acquisition	Selected topics in second-language acquisition, such as phonetics and phonology, morphology, syntax, and discourse.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	655	Disciplinary Discourses	Investigation of professional and disciplinary issues related to English studies.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	656	Studies in Cross-Cultural Discourse	Theoretical and methodological issues in the comparative study of discourses between cultures and communities of practice.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of English	3.		
LIN	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		
LIN	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-12		

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LIN	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of English	1-15		
LIN	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of English	1.		
LIN	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of English	1-15		
LIS	510	Computers and Technology in the School Library	Library uses of technology and computers. Fundamental concepts and issues in library media centers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	533	Current Library Problems	Critical analysis of current practices and problems in school librarianship.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	540	Classification and Cataloging	Descriptive cataloging and Dewey Decimal Classification of print and nonprint library materials.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	561	Selection of Library Materials	Principles and procedures used in the selection of materials for the school library.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	565	Literature for Hispanic Youth/Literatura para Jóvenes Hispanoparlantes	Selects, analyzes, and utilizes literature for Hispanic and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	571	Basic Reference Resources	Provides reference service in the school library. Content and use of basic resources.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
LIS	581	School Library Administration	Administration of K-12 libraries and media centers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LIS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student

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LIS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-Requisite: Must be Post Bac Undergraduate, Non Degree Graduate or Degree Graduate student
LNP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LNP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LNP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LNP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LNP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	310	History of Landscape Architecture	Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU & H	
LPH	311	Contemporary Landscape Architecture	Explores concerns, projects, and movements in landscape architecture of late 20th-century understanding; social, ecological, regional, and historical influences.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
LPH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	411	Landscape Architecture Theory and Criticism	Critically analyzes landscape architecture theories and projects to evaluate validity of design and contribution to society.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	L	Pre-requisites: Landscape Architecture; LDE 461 and LPH 311 with C or better; Co-requisites: LDE 462 and LTC 446
LPH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LPH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

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LPH	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LPH	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LPH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LSC	241	Human Genetics	Introduces basic concepts of human heredity and cytogenetics, including Mendelian, molecular, and population genetics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	301	Life Sciences: History and Method	Integrates philosophy, history, and methods of the life sciences. Includes issue of underrepresentation of minorities in science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
LSC	322	Fundamentals of Ecology Laboratory	Investigational field course on fundamental concepts in ecology. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre/Co-requisites: LSC 320 or BIO 320 (with C or better if completed)
LSC	342	Hormones and Behavior	Examines the short-term and long-term effects of hormones on the behavior of animals, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 181 or 188 and BIO 182 or 187 with a grade of C or greater or be currently enrolled.
LSC	347	Fundamentals of Genetics	Science of genetics, gene flow, and genetic engineering in humans and other organisms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed BIO 181 or 188 and BIO 182 or 187 and CHM 116
LSC	348	Fundamentals of Genetics Laboratory	Investigational lab using modern molecular techniques to analyze various genetic phenomena. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisites: must have completed BIO 187, BIO 188, CHM 113, and CHM 116 with a grade of C or greater and be co-enrolled in LSC 347.
LSC	350	Premedical Professional Seminar	An opportunity for students who anticipate a career in any area of medicine to explore the realities of the field.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO 181 or 188, BIO 182 or 188, BIO 353 or LSC 353, and BIO 340 or LSC 347 with C or better
LSC	354	Developmental Anatomy Lab	Experimental studies of developmental processes in animals. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	359	Animal Physiology Laboratory	Investigative lab experience using animals (including humans) and models. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre/Co-requisites: LSC 358 or BIO 360 (with C or better if completed)
LSC	360	The Biology of Human Experience	Introduces the evolutionary origins and characteristics of humans as they are reflected in morphology, physiology, ecology, and behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed BIO187 and BIO188 with a grade of C or greater or be currently enrolled.
LSC	361	Human Sexual Biology	Human sexuality from a biological and integrative perspective, including comparisons to other vertebrates and examination of social, behavioral, and physiological factors. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	362	The Human Environment	Evolution of humans' physiological, ecological, and behavioral interaction with their environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
LSC	363	Genes, Race, Gender, and Society	Examines biological events and theories on race and gender and their interface with societal views.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	Pre-requisites: BIO 182 (or BIO 187), BIO 181 (or BIO 188), BIO 340 (or LSC 347), LSC 353 and CHM 234 with C or better
LSC	365	The Human Organism	Analyzes human anatomy, physiology, and behavior in an ecological and evolutionary context with the methods of comparative biology. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SG	
LSC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	430	Environmental and Human Toxicology	Lecture/fieldwork course investigating toxic substances in the environment and their effect on the health of organisms, including humans.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: must have completed BIO187/182, BIO188/181, and CHM116/115 with a grade of C or greater or be currently enrolled.
LSC	432	Fundamentals of Pharmacology	Aspects of pharmacology using an integrated approach to familiarize students with natural and synthetic therapeutic agents used in medicine.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: must have completed either BIO353, LSC353, or LSC359 with a grade of C or greater or be currently enrolled.
LSC	434	Marine Ecology	Examines ecological processes in oceans, seas, and estuaries that emphasizes species- and community-level phenomena.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: BIO187 or 182; BIO188 or 181; LSC 320 or BIO 320 with C or better
LSC	447	Molecular Genetics Laboratory	Investigative lab involving DNA isolation, PCR, gel electrophoresis, enzyme digestion and ligation, transformation, and hybridization analysis. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	450	Premedical Externship	Provides hands-on experience in a hospital setting for premedical students.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: LSC 350 with C or better
LSC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	P/F	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	486	Peer Mentoring in the Life Sciences	Advanced students learn and apply mentoring skills in teaching labs.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		
LSC	492	Honors Directed Study		N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6		
LSC	493	Honors Thesis		N	SEM	N	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-6	L	Pre-requisites: Must be an Honors student

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LSC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LSC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-7		
LSC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	RSC	Y	P/F	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
LSC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LAB	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	DIS	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LAB	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	SEM	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-12		
LSC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
LTC	343	Landscape Construction I	Landscape constructions focusing on landform transformations. Topics include landform analysis, grading, and earthwork.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Co-requisites: LDE 361
LTC	344	Landscape Construction II	Characteristics of materials and methods used in landscape architectural construction.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Landscape Architecture student; LTC 343 with C or better; Co-requisites: LDE 363 and 461
LTC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LTC	446	Landscape Construction III	Landscape construction focusing on low-technology, biotechnical, regional, and experimental techniques or systems.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Landscape Architecture student; LTC 344 with a C or better; Co-requisites: LDE 462 and LPH 411
LTC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LTC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
LTC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

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LTC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LTC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
LTC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
LTC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
MA	513	Algebraic Topology	Rigorous introduction to graph theory. High-level mastery in topics such as trees, cycles, matchings, planarity, connectivity, hamiltonicity, chromatic number, Ramsey theory with emphasis on proof techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAE	100	Introduction to Mechanical and Aerospace Engineering	Introduces mechanical and aerospace engineering, design process, teaming, the profession of mechanical and aerospace engineering, computer models in engineering, communication skills, CAD tools, and programming tools. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2.		Pre-requisites: Aerospace or Mechanical Engineering student
MAE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-3		Pre-requisites: MAE Freshman student
MAE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	212	Engineering Mechanics	Force systems, resultants, moments and equilibrium. Kinematics and kinetics of particles, systems of particles and rigid bodies. Energy and momentum principles.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Mech & Aero student; PHY 121 C or better; Pre/Co-requisite: MAT 274 or 275 C or better OR Non Mech & Aero student; PHY 121; Pre/Co-requisite: MAT 274 or 275
MAE	213	Solid Mechanics	Equilibrium, strain-displacement relations, and stress-strain-temperature relations. Applications to force transmission and deformations in axial, torsional, and bending of bars. Combined loadings.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: CEE 210, CEE 211 or MAE 212 with C or better; MAT 274 (or 275) with C or better
MAE	214	Computer-Aided Engineering I	Introduces geometry and construction techniques in CAD, technical drawing conventions, generating drawings from CAD models. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		Pre-requisites: Mechanical & Aerospace Engineering student; MAE 212 (or ECE 212 or ECE 214) with C or better or Co-requisite: MAE 212
MAE	240	Thermofluids I	Introductory concepts of thermodynamics, fluid mechanics, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Mechanical & Aerospace Engineer or Fulton BSE student with MAE 212 with C or better or Non MAE student with CEE 212 (may be co-enrolled) or MAE 212 with C or better
MAE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	298	Honors Directed Study		N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6		
MAE	313	Aircraft Dynamics and Control	Aircraft static stability; equations of motion; dynamic modes and stability; stability derivatives; response to controls; introduces automatic control of aircraft.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MAE 318 and MAE 360 with C or better
MAE	318	Sensors and Controls	Introduces measurement systems, feedback control modelling and dynamics of physical systems, computer simulations and real-time experiments. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	5.		Pre-requisites: Mech or Aero BSE student; MAE 212 or CEE 211 with C or better; EEE 202 with C or better
MAE	322	Structural Mechanics	Three-dimensional stress analysis, failure theories, energy methods, finite elements, torsion of noncircular members, unsymmetrical bending, beam column, fatigue and fracture. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: MAE BS/BSE student; grade of "C" or better in MAE 213, MAT 343, & MAE 384(or co-enrolled in MAE 384)
MAE	323	Computer-Aided Engineering II	Introduces finite-element analysis, pre- and postprocessing, solving problems with FEA. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2.		Pre-requisites: MAE BSE students; MAE 214 with C or better, MAE 322 with C or better
MAE	340	Thermofluids II	Intermediate concepts of thermodynamics, fluid mechanics, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 240 with a C or better; Pre/Co-requisite: MAE 384
MAE	341	Mechanism Analysis and Design	Positions, velocities, and accelerations of machine parts; cams, gears, flexible connectors, and rolling contact; introduces synthesis.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS or BSE students; MAE 212 with a C or better

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MAE	342	Principles of Mechanical Design	The design process; conceptual and embodiment design of mechanical elements; form synthesis; material selection, failure modes, manufacturability tolerances, common mechanisms and machine elements. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with C or better; MAE 322 with C or better; Pre/Co-requisite: MAE 318 (with C or better if completed)
MAE	344	Fundamentals of Aerospace Design	Design theory and design tools applied to aerospace engineering. Engineering drawings, solid modeling, RFP's, Federal Aviation Regulations and military specifications, aircraft sizing, rapid prototyping. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MAE 214, 322, 360 and 384 with a C or better
MAE	345	Structures in a Space Environment	Space mission environment; mechanical behavior of materials and structures for space; analysis and design of space structures; finite element procedures.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students; MAE 213 and MAE 384 with C or better; Pre or Co-requisites: MAE 318 (with C or better if completed) and MAE 384 (with C or better if completed)
MAE	351	Manufacturing Processes	Production technique and equipment. Casting and molding, forming, machining, joining and assembly, computer-integrated manufacturing, rapid prototyping, and electronics manufacturing. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with C or better; Credit is allowed for only IEE 360 or MAE 351
MAE	360	Aerodynamics	Airfoils and wings, ideal flow, panel methods, boundary layers, finite-difference solutions, wind-tunnel testing. Both MAE 362 and MAE 360 must be taken to secure L General Studies credit. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.	L	Pre-requisites: Engineering BS/BSE students; MAE 240 with C or better; ENG 102, 105 or 108 with C or better; MAE 384 or CEE 384 with C or better or Co-requisite: MAE 384
MAE	362	High-Speed Aerodynamics	Compressible flow at subsonic and supersonic speeds; ducts, nozzles, and diffusers; normal and oblique shocks, transonic flow, numerical solutions; experimental applications. Both MAE 362 and MAE 360 must be taken to secure L General Studies credit. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.	L	Pre-requisites: Engineering BS/BSE students; MAE 240 and MAE 384 with C or better
MAE	372	Fluid Mechanics	Applies basic principles of fluid mechanics to problems in viscous and compressible flow.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 360 with C or better; MAE 384 with C or better
MAE	382	Thermodynamics	Applied thermodynamics; gas mixtures, psychrometrics, property relationships, power and refrigeration cycles, and reactive systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 240 with C or better
MAE	384	Numerical Methods for Engineers	Numerical methods and computational tools for selected problems in engineering. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	CS	Engineering BS/BSE student; Mech & Aero students with MAT274 or 275 & MAT343(or MAT 242) C or better OR Non Mech & Aero with MAT274 or 275 & MAT242, 342 or 343(C or better); Pre or Co-req: MAT272 (or MAT267 w/C or better). Credit only for MAE384 /CEE384
MAE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		Pre-requisites: Engineering BS/BSE student
MAE	400	Engineering Profession	Impact of mechanical and aerospace engineering in a global and societal context; effects of and on globalization, environment, sustainability, economy, politics; engineering ethics and business practices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Aerospace Engineering or Mechanical Engineering BSE Seniors; MAE 342 or MAE 362 completed with a C or better
MAE	404	Finite Elements in Engineering	Introduces ideas and methodology of finite element analysis. Applications to solid mechanics, heat transfer, fluid mechanics, and vibrations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 213 or ECE 313 with C or better; CEE 384, MAE 384 or ECE 384 with C or better
MAE	406	CAD/CAM Applications in MAE	Solution of engineering problems with the aid of state-of-the-art software tools in solid modeling, engineering analysis, and manufacturing; selection of modeling parameters; reliability tests on software. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students AND a grade of D or better in MAE 342, 344, 441 or 444.
MAE	415	Vibration Analysis	Free and forced response of single and multiple degree of freedom systems, continuous systems; applications in mechanical and aerospace systems numerical methods. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 213 with C or better; CEE 384 or MAE 384 with C or better
MAE	417	Control System Design	Tools and methods of control system design and compensation, including simulation, response optimization, frequency domain techniques, state variable feedback, and sensitivity analysis. Introduces nonlinear and discrete time systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better
MAE	426	Design of Aerospace Structures	Flight vehicle loads, design of semimonocoque structures, local buckling and crippling, fatigue, aerospace materials, composites, joints, and finite element applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 322 with C or better
MAE	434	Internal Combustion Engines	Performance characteristics, combustion, carburetion and fuel-injection, and the cooling and control of internal combustion engines. Computer modeling. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 382 with C or better
MAE	435	Turbomachinery	Design and performance of turbomachines, including steam, gas and hydraulic turbines, centrifugal pumps, compressors, fans, and blowers.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a C or better in MAE 340 or 360
MAE	436	Combustion	Thermochemical and reaction rate processes; combustion of gaseous and condensed-phase fuels. Applications to propulsion and heating systems. Pollutant formation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 with C or better
MAE	442	Mechanical Systems Design	Applies design principles and techniques to the synthesis, modeling, and optimization of mechanical, electromechanical, and hydraulic systems. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better; MAE 342 or MAE 344 with C or better

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MAE	446	Energy Systems Design	Applies mechanical engineering principles and techniques to modeling, analysis, and synthesis of energy systems and components. Design optimization. Design project.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 with C or better; MAE 382 with C or better
MAE	447	Robotics and Its Influence on Design	Robot applications, configurations, singular positions, and work space; modes of control; vision; programming exercises; design of parts for assembly.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better
MAE	455	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better or currently enrolled; CEE 213, MAE 213 or MSE 211 with D or better or currently enrolled; MAT 343, MAT 242 or MAT 342 with D or better or currently enrolled
MAE	462	Space Vehicle Dynamics and Control	Attitude dynamics and control, launch vehicles, orbital mechanics, orbital transfer/rendezvous, space mission design, space structures, spacecraft control systems design.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better
MAE	463	Propulsion	Fundamentals of gas-turbine engines and design of components. Principles and design of rocket propulsion and alternative devices.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 362 with C or better; MAE 384 with C or better
MAE	465	Rocket Propulsion	Rocket flight performance; nozzle design; combustion of liquid and solid propellants; component design; advanced propulsion systems; interplanetary missions; testing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE plans; MAE 340 or MAE 362 with C or better
MAE	466	Rotary Wing Aerodynamics and Performance	Introduces helicopter and propeller analysis techniques. Momentum, blade-element, and vortex methods. Hover and forward flight. Ground effect, autorotation, and compressibility effects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 360 with C or better; Credit is allowed for only MAE 466 or 566
MAE	468	Aerospace Systems Design	Group projects related to aerospace vehicle design, working from mission definition and continuing through preliminary design. Fee.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Engineering BS/BSE students; MAE 313 with a C or better; MAE 344 with C or better; Pre-or Co-requisite: MAE 463 with C if completed
MAE	469	Projects in Astronautics or Aeronautics	Various multidisciplinary team projects available each semester. Projects include design of high-speed rotocraft autonomous vehicles, liquid-fueled rockets, microaerial vehicles, satellites. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student
MAE	471	Computational Fluid Dynamics	Numerical solutions for selected problems in fluid mechanics. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 340 or MAE 360 with C or better; MAE 384 or ECE 384 with C or better; Credit is allowed for only MAE 471 or 561
MAE	480	Space Systems Design	Group projects related to space systems design, working from mission definition and continuing through conceptual design. Integrated lecture/lab.	N	LEL	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE student; C or better in MAE 214, MAE 345, MAE 465, and EEE 304, or be co-enrolled in EEE 304
MAE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	488	Mechanical Engineering Design I	Conceptual and embodiment design; modeling; rapid prototyping. Team project. MAE 488 and 489 must be taken in consecutive semesters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students AND a grade of C or better in MAE 340 AND a grade of C or better in MAE 342
MAE	489	Mechanical Engineering Design II	Detail design; fabrication and testing. Team project. MAE 488 and 489 must be taken in consecutive semesters. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Engineering BS/BSE students; MAE 488 with C or better
MAE	491	Experimental Mechanical Engineering	Experimental and analytical studies of phenomena and performance of fluid flow, heat transfer, thermodynamics, refrigeration, and mechanical power systems. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.	L	Pre-requisites: Engineering BS/BSE students; MAE 318 with C or better; MAE 340 with C or better
MAE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6		
MAE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-6	L	Pre-requisites: Must be an Honors student.
MAE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		
MAE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-7		Pre-requisites: Engineering students
MAE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-3		
MAE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAE	501	Linear Algebra in Engineering	Development and solution of systems of linear algebraic equations. Applications from mechanical, structural, and electrical fields of engineering.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students only
MAE	502	Partial Differential Equations in Engineering	Development and solution of partial differential equations in engineering. Applications in solid mechanics, vibrations, and heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students only
MAE	504	Experimental Methods for Thermal and Fluid Processes	Theory and application of optical diagnostics and microsensors for characterizing thermofluid processes. Measurements include laser spectroscopy, velocimetry, particle sizing, and surface properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	505	Perturbation Methods	Nonlinear oscillations, strained coordinates, renormalization, multiple scales, boundary layers, matched asymptotic expansions, turning point problems, and WKBJ method.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; Credit is allowed for only APM 575 or MAE 505
MAE	506	Advanced System Modeling, Dynamics, and Control	Lumped-parameter modeling of physical systems with examples. State variable representations and dynamic response. Introduces modern control.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; MAE 501 with C or better.
MAE	507	Optimal Control	Optimal control of systems. Calculus of variations, dynamic programming, linear quadratic regulator, numerical methods, and Pontryagin's principle.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students; MAE 506 with C or better
MAE	510	Dynamics and Vibrations	Lagrange's and Hamilton's equations, rigid body dynamics, gyroscopic motion, and small oscillation theory.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering students
MAE	512	Random Vibrations	Reviews probability theory, random processes, stationarity, power spectrum, white noise process, random response of single and multiple DOF systems, and Markov processes simulation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	2-3		Pre-requisites: Graduate Engineering student; CEE 536, MAE 510 or MAE 515 with C or better or currently enrolled
MAE	515	Structural Dynamics	Free vibration and forced response of discrete and continuous systems, exact and approximate methods of solution, response spectra, computational techniques, special topics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 510 completed with a C or better or currently enrolled
MAE	520	Stress Analysis	Introduces tensors: kinematics, stress analysis, and constitutive assumptions leading to elastic and plastic behavior. Strain energy and energy methods; applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	521	Structural Optimization	Linear and nonlinear programming. Problem formulation. Design sensitivity analysis. FEM-based optimal design of structural and mechanical systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 501 with C or better; CEE 526 or MAE 527 with a C or better
MAE	523	Fracture Mechanics	Linear elastic fracture mechanics. Nonlinear problems. Fatigue fracture. Experimental methods in fracture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; CEE 521 or MAE 520 with C or better
MAE	524	Theory of Elasticity	Elastic behavior in two and three dimensions. Airy stress functions and displacement potentials. Elements of fracture.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 520 with C or better
MAE	525	Mechanics of Smart Materials and Structures	Modeling and analysis of smart materials and adaptive structures. Application areas include vibration and shape control and damage detection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 510 with C or better
MAE	527	Finite Elements for Engineers	Direct stiffness, method of weighted residuals, weak formulation, and variational techniques in the solution of engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 501 with C or better
MAE	536	Combustion	Thermodynamics; chemical kinetics of combustion. Explosion and ignition theories. Reactive gas dynamics. Structure, propagation, and stability of flames. Experimental methods.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	540	Advanced Product Design Methodology	Surveys research in engineering design process, artifact and design, knowledge, formal and informal logic, heuristic and numerical searches, theory of structure and complexity.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	541	CADTools for Engineers	Elements of computer techniques required to develop CAD software. Data structures, including lists, trees, and graphs. Computer graphics, including 2- and 3-D algorithms and user interface techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	544	Mechanical Design and Failure Prevention	Modes of mechanical failure; applies principles of elasticity and plasticity in multiaxial state of stress to design synthesis; failure theories; fatigue; creep; impact.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	546	CAD/CAM Applications in MAE	Solution of engineering problems with the aid of state-of-the-art software tools in solid modeling, engineering analysis, and manufacturing; selection of modeling parameters; reliability tests on software. Open only to students without previous credit for MAE 406.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	4.		Pre-requisites: Graduate Engineering student
MAE	547	Mechanical Design and Control of Robots	Homogeneous transformations, 3-D kinematics, geometry of motion, forward and inverse kinematics, workspace and motion trajectories, dynamics, control, and static forces.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student

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MAE	557	Mechanics of Composite Materials	Analysis, design, and applications of laminated and chopped fiber reinforced composites. Micro- and macromechanical analysis of elastic constants, failure, and environmental degradation. Design project.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	561	Computational Fluid Dynamics	Finite-difference and finite-volume techniques for solving the subsonic, transonic, and supersonic flow equations. Method of characteristics. Numerical grid-generation techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Students who have credit for MAE 471, may not enroll in MAE 561
MAE	564	Advanced Aerodynamics	Perturbation method. Linearized subsonic and supersonic flows. Thin wing/slender body theories. Lifting surface theory. Panel method computation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	566	Rotary-Wing Aerodynamics	Introduces helicopter and propeller analysis techniques. Momentum, blade-element, and vortex methods. Hover and forward flight. Ground effect, autorotation, and compressibility effects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisite: Graduate Engineering student; Credit is allowed for only MAE 466 or 566
MAE	571	Fluid Mechanics	Basic kinematic, dynamic, and thermodynamic equations of the fluid continuum and their application to basic fluid models.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	572	Advanced High-Speed Flows	Introduces compressible flow. Sound waves and normal shock waves. Quasi-one-dimensional steady flows in variable area ducts with friction, heating, and cooling; unsteady one-dimensional flow, oblique shock waves, Prandtl-Meyer expansions, detonation waves.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	573	Viscous Fluid Flow	Mechanics of fluids for flows in which the effects of viscosity are significant. Exact and approximate solutions of the Navier-Stokes system, laminar flow at low and high Reynolds number.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 completed with C or better or currently enrolled
MAE	574	Fluid Transport in Micro/Nanoscale Devices	Focuses on fundamental fluid transport physics in micron and nanometer scale devices. At small length scales fluid motion and transport is governed by electromagnetic, interfacial, and stochastic phenomena that differentiate these flows from typical macroscale flows. In microscale devices these phenomena enable new and high-performance separation, concentration, control, and diagnostic processes. Core concepts are presented along with discussions of state-of-the-art micro and nanoscale total analytical devices. Requires knowledge of fluid mechanics, electrostatics, heat and mass transfer, and partial differential equations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Fulton School of Engineering graduate students only
MAE	575	Turbulence	Homogeneous, isotropic, and wall turbulence. Experimental results. Introduces turbulent-flow calculations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	577	Turbulent Flow Modeling	Reynolds equations and their closure. Modeling of simple and complex turbulent flows, calculations of internal and external flows, and application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student; MAE 571 with C or better
MAE	578	Environmental Fluid Dynamics	Studies fluid motions in Earth's hydrosphere and atmosphere on local and regional scales.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		
MAE	581	Advanced Thermodynamics	Basic concepts and laws of classical equilibrium thermodynamics; applications to engineering systems; introduction and applications of statistical mechanics and kinetic theory; Boltzmann integro-differential equation.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	585	Conduction Heat Transfer	Basic equations and concepts of conduction heat transfer. Mathematical formulation and solution (analytical and numerical) of steady and unsteady, one- and multidimensional heat conduction and phase change problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	586	Convection Heat Transfer	Basic concepts and governing equations. Analysis of laminar and turbulent heat transfer for internal and external flows. Natural and mixed convection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	587	Radiation Heat Transfer	Advanced concepts and solution methodologies for radiation heat transfer, including exchange of thermal radiation between surfaces, radiation in absorbing, emitting, and scattering media and radiation combined with conduction and convection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	589	Heat and Mass Transfer	Basic concepts; physical and mathematical models for heat and mass transfer. Applications to conductive, convective, radiative, and combined mode heat transfer.	N	LEC	N	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	3.		Pre-requisites: Graduate Engineering student
MAE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		

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MAE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		Pre-requisites: Mechanical or Aerospace Master's degree student
MAE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		Pre-requisites: Graduate Engineering student
MAE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		
MAE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-4		Pre-requisites: Graduate Engineering student
MAE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		Pre-requisites: Mechanical or Aerospace Master's degree student
MAE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-12		
MAE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-15		Pre-requisites: Mechanical or Aerospace Doctoral student
MAE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1.		
MAE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Mechanical and Aerospace Engineering Program	1-15		Pre-requisites: Mechanical or Aerospace Doctoral student
MAK	101	Elementary Macedonian	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	102	Elementary Macedonian	See MAK 101.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	201	Intermediate Macedonian	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	202	Intermediate Macedonian	See MAK 201.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
MAK	311	Macedonian Composition and Conversation	Advanced communicative proficiency and writing development. Intended for students enrolled in ASU Study Abroad University of Ss. Kiril and Metodij.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	312	Macedonian Composition and Conversation	Advanced communicative proficiency and writing development. Intended for students enrolled in ASU Study Abroad University of Ss. Kiril and Metodij.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAK	411	Advanced Macedonian Composition and Conversation	Improves self-expression in oral and written skills, emphasizing vocabulary building and use of newspapers and other materials published in Macedonia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		

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MAK	412	Advanced Macedonian Composition and Conversation	Improves self-expression in oral and written skills, emphasizing vocabulary building and use of newspapers and other materials published in Macedonia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-8		
MAS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	501	Models of Inquiry for Contemporary Issues	Critical survey of current models of inquiry, tools, processes, and methods in different fields.	N	DIS	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	502	Perspectives in Interdisciplinary Studies	Introduces interdisciplinarity through explorations of epistemological and rhetorical practices that bridge traditional disciplines.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
MAS	505	20th-Century Thought: Concepts of Change, Culture and Mind	Introduces graduate-level interdisciplinary study of key thinkers, movements, theories and paradigms in 20th-century thought.	N	DIS	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	510	Science and Religion: Cosmologies and Worldviews	Examines science and religion, stressing modern scientific findings and philosophical and historical debates and dialogues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Students who have credit for IAS 430, may not enroll in MAS 510
MAS	511	Technology, Environment and Humanity	Critically analyzes technology in relation to human and environmental issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
MAS	512	History and Philosophy of the Social Sciences	Examines the development, historical context, and long-term importance of major theories of human nature from the 17th century until today.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
MAS	513	Sociology of Everyday Life	Examines institutional ethnography, a way of exploring the particular and generalized social relations that shape people's everyday experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
MAS	529	Latinas and Latinos, Schooling, and Social Inequality	Advanced interdisciplinary understanding of the issues facing Latinas and Latinos in K-16 schooling in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		
MAS	553	Latin American Cities	Interdisciplinary study of Latin American world cities (e.g., Mexico City, Santiago) emphasizing integration with U.S. cities, including Los Angeles and Phoenix.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
MAS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
MAS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
MAS	585	Capstone Course	Assists students in preparing their capstone project, which represents the culmination of their study for the MA in Interdisciplinary Studies.	N	THE	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3-4		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1.		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-4		Pre-requisites: Must be in PLAN: ASINTERMA
MAS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher

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MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	265	Calculus for Engineers I	Limits and continuity, differential calculus of functions of one variable, introduction to integration. Not open to students with credit in MAT 270.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	266	Calculus for Engineers II	Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, Taylor series. Not open to students with credit in MAT 271.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	267	Calculus for Engineers III	Vector-valued functions of several variables, partial derivatives, multiple integration. Not open to students with credit in MAT 272.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	274	Elementary Differential Equations	Introduces ordinary differential equations, adapted to the needs of students in engineering and the sciences. Credit is allowed for only MAT 274 or 275 toward a mathematics degree.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: Must have completed MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	MA	Pre-requisites: MAT 266 or MAT 271 with a C or better
MAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	343	Applied Linear Algebra	Solving linear systems, matrices, determinants, vector spaces, bases, linear transformations, eigenvectors, norms, inner products, decompositions, applications. Problem solving using MATLAB. Credit is allowed for only MAT 343 or 342 toward a mathematics degree. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		Pre-requisites: MAT 271 or MAT 266 with a C or better
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1-4		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have ALEKS exam
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
MAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-5		Pre-requisites: Unified Placement Test with a score of 40 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	242	Elementary Linear Algebra	Introduces matrices, systems of linear equations, determinants, vector spaces, linear transformations, and eigenvalues. Emphasizes development of computational skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	2.		
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	265	Calculus for Engineers I	Limits and continuity, differential calculus of functions of one variable, introduction to integration. Not open to students with credit in MAT 270.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	266	Calculus for Engineers II	Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, Taylor series. Not open to students with credit in MAT 271.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	267	Calculus for Engineers III	Vector-valued functions of several variables, partial derivatives, multiple integration. Not open to students with credit in MAT 272.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	270	Calculus with Analytic Geometry I	Real numbers, limits and continuity, and differential and integral calculus of functions of 1 variable. Not open to students with credit in MAT 290. The sequence MAT 270 and 271 may be substituted for MAT 290 to satisfy requirements of any curriculum. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MAT	271	Calculus with Analytic Geometry II	Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series. Not open to students with credit in MAT 291. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	272	Calculus with Analytic Geometry III	Vector-valued functions of several variables, multiple integration, and introduction to vector analysis. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	4.	MA	Pre-requisites: Must have completed either MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	274	Elementary Differential Equations	Introduces ordinary differential equations, adapted to the needs of students in engineering and the sciences. Credit is allowed for only MAT 274 or 275 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: Must have completed MAT 266 or MAT 271 with a grade of C or greater or be currently enrolled
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	MA	Pre-requisites: MAT 266 or MAT 271 with a C or better
MAT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MAT	300	Mathematical Structures	Logic and set theory, induction, functions, order and equivalence relations, cardinality. Emphasizes writing proofs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	L	Pre-requisites: MAT 210, or MAT 251, or MAT 265, or MAT 270 with a C or better
MAT	310	Introduction to Geometry	Congruence, area, parallelism, similarity and volume, and Euclidean and non-Euclidean geometry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	340	Theory of Interest	Compound interest, discount rates, annuities, present values, depreciation, and bond valuations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better
MAT	342	Linear Algebra	Linear equations, matrices, determinants, vector spaces, bases, linear transformations and similarity, inner product spaces, eigenvectors, orthonormal bases, diagonalization, and principal axes. Credit is allowed for only MAT 342 or 343 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 267, or MAT 272 with a C or better
MAT	343	Applied Linear Algebra	Solving linear systems, matrices, determinants, vector spaces, bases, linear transformations, eigenvectors, norms, inner products, decompositions, applications. Problem solving using MATLAB. Credit is allowed for only MAT 343 or 342 toward a mathematics degree. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 271 or MAT 266 with a C or better
MAT	351	Mathematical Methods for Genetic Analysis	Discrete mathematics, probability, statistics, and associated computer packages. Applications to genomics, bioinformatics, forensics, and DNA/protein sequence patterns. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	362	Advanced Mathematics for Engineers and Scientists	Vector analysis, Fourier analysis, and partial differential equations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	370	Intermediate Calculus	Theory behind basic 1-variable calculus: continuity, derivative, Riemann integral, sequences, and series. Not open to students with a C (2.00) or higher in MAT 371. Credit is allowed for only MAT 370 or 371 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 272 (or MAT 267) and MAT 300 (or 243) with a C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	371	Advanced Calculus I	Real numbers, completeness, sequences/series, continuity, uniform theorems, derivative, Riemann integral, pointwise/uniform convergence, Taylor's theorem. Credit is allowed for only MAT 371 or 370 toward a mathematics degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 272 (or MAT 267) and MAT 300 (or 243) with C or better
MAT	372	Advanced Calculus II	Open, closed, compact sets in \mathbb{R}^n ; continuity, differentiation, partial differentiation, integration in \mathbb{R}^n . Inverse/implicit function theorems. Not open to students with credit in MAT 460.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	410	Introduction to General Topology	Topological spaces, metric spaces, compactness, connectedness, and product spaces.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	415	Introduction to Combinatorics	Enumerating permutations and combinations of sets and multisets, inclusion-exclusion, recurrence relations, generating functions, Pólya theory and combinatorial structures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 300 (or 243) with C or better; MAT 242 (or MAT 342 or MAT 343) with C or better C or better
MAT	416	Introduction to Graph Theory	Trees, cycles, matchings, planarity, connectivity, hamiltonicity, chromatic number, Ramsey theory with emphasis on proof techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		MAT 300 (or 243) with C or better, and MAT 242 (or 242, or 343) with C or better
MAT	419	Introduction to Linear Optimization	Simplex method, duality, and network flows. Applications to game theory, geometry, combinatorics, graph theory, and posets.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	420	Scientific Computing	Surveys and applies programming languages, libraries, and scientific visualization tools. Programming assignments emphasize software development skills. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: CSE 205 and MAT 274 (or 275), and MAT 342 (or MAT 343) with a C or better
MAT	421	Applied Computational Methods	Numerical methods for quadrature, differential equations, roots of nonlinear equations, interpolation, approximation, linear equations, floating-point arithmetic, and roundoff error.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 272 with a C or better
MAT	423	Numerical Analysis I	Solution of systems of linear and nonlinear equations, optimization, eigenvalues, round-off error, and floating point arithmetic. Fluency in computer programming is required for enrollment in this course.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 342 (or MAT 343) with a grade of C or better
MAT	425	Numerical Analysis II	Analysis of and algorithms for numerical interpolation, integration, and differentiation. Numerical solution of ordinary and partial differential equations, introductory level. Applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 274 or MAT 275 with C or better
MAT	442	Advanced Linear Algebra	Fundamentals of linear algebra, dual spaces, invariant subspaces, canonical forms, bilinear and quadratic forms, and multilinear algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	443	Introduction to Abstract Algebra	Introduces concepts of abstract algebra. Not open to students with credit in MAT 444.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 300 and MAT 342 (or MAT 343) with a C or better
MAT	444	Intermediate Abstract Algebra	Basic theory of groups, rings, and fields, including an introduction to Galois theory. Appropriate as preparation for MAT 543.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 442 or MAT 443 with a C or better
MAT	445	Theory of Numbers	Prime numbers, unique factorization theorem, congruences, Diophantine equations, primitive roots, and quadratic reciprocity theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	447	Cryptography	Block ciphers, stream ciphers, congruence arithmetic, information theory, public key cryptosystems, key exchange, electronic signatures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	451	Mathematical Modeling	Detailed study of 1 or more mathematical models that occur in the physical or biological sciences. May be repeated for credit with instructor approval.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
MAT	452	Introduction to Chaos and Nonlinear Dynamics	Properties of nonlinear dynamical systems; dependence on initial conditions; strange attractors; period doubling; bifurcations; symbolic dynamics; Smale-Birkhoff theorem; and applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	460	Vector Calculus	Vectors, curvilinear coordinates, Jacobians, implicit function theorem, line and surface integrals, Green's, Stokes', and divergence theorems. Not open to students with credit in MAT 372.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	461	Applied Complex Analysis	Analytic functions, complex integration, Taylor and Laurent series, residue theorem, conformal mapping, and harmonic functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: MAT 272 or MAT 267 with a C or better
MAT	462	Applied Partial Differential Equations	Second-order partial differential equations, emphasizing Laplace, wave, and diffusion equations. Solutions by the methods of characteristics, separation of variables, and integral transforms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	472	Intermediate Real Analysis I	Introduces analysis in metric spaces with emphasis on the real line. Appropriate as preparation for MAT 570.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	473	Intermediate Real Analysis II	Analysis in \mathbb{R}^n : implicit function theorem, introduction to manifolds, Lebesgue integration, change of variables formula, convergence theorems for integrals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	475	Differential Equations	Linear and nonlinear ordinary differential equations, asymptotic behavior of solutions, stability, existence and uniqueness, limit sets, Poincar-Bendixson theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 242 (or MAT 342 or MAT 343) and MAT 274 (or MAT 275) and MAT 370 (or MAT 371) with a "C" or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	476	Partial Differential Equations	First-order quasilinear, second-order linear (wave, Laplace, heat). Characteristics, harmonic functions, maximum principles, Fourier series, separation of variables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 242 (or 342 or 343) with C or better; MAT 274 (or 275 or 475) with C or better; MAT 370 (or 371) with C or better
MAT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	485	History of Mathematics	Topics from the history of the origin and development of mathematical ideas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		Pre-requisites: Must be an Honors student
MAT	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
MAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
MAT	514	Enumerative Combinatorics I	First semester of a systematic development of enumerative combinatorics, including elementary counting techniques, sieve methods, and partially ordered sets.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	515	Enumerative Combinatorics II	Second semester of a systematic development of enumerative combinatorics, including lattices, exponential structures, symmetric functions, and selected special topics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	516	Graph Theory I	First semester of a systematic development of graph theory, including matchings, connectivity, arboricity, planarity, coloring, network flows.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	517	Graph Theory II	Second semester of a systematic development of graph theory, including dense and sparse graphs, Ramsey theory, hamiltonicity, random graphs, minors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	518	Combinatorial Optimization	Systematic development of combinatorial optimization, including linear programming, duality, primal-dual algorithms, network flow algorithms, weighted matchings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	541	"p"-Adic Numbers	Introduces "p"-Adic numbers and analysis. Topics include valuations, completions of number fields, extensions of the field of "p"-adic numbers and "p"-adic analysis. Students should have previously taken courses in analysis and algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
MAT	543	Abstract Algebra	Groups, modules, rings and fields, Galois theory, homological algebra, and the representation theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	544	Abstract Algebra	Continuation of MAT 543.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	545	Abstract Algebra	Covers modules, Galois theory, and preparation for advanced study in algebraic parts of mathematics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisite: MAT 544
MAT	570	Real Analysis	Lebesgue integration, selected function spaces, differentiation, abstract measure theory, and elements of functional analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	571	Real Analysis	Continuation of MAT 570.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	572	Complex Analysis	Analytic functions, series and product representations, entire and meromorphic functions, normal families, Riemann mapping theorem, harmonic functions, and Riemann surfaces.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	573	Complex Analysis	Continuation of MAT 572.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	574	Theory of Ordinary Differential Equations	Systems, existence proofs, singularities, asymptotic behavior of solutions, boundedness of solutions, eigenvalues and eigenfunctions, and perturbation theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	578	Functional Analysis	Locally convex, normed, and Hilbert spaces. Linear operators, spectral theory, and application to classical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	579	Functional Analysis	Continuation of MAT 578.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MAT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MAT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MAT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MAT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MAT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have ALEKS exam
MAT	117	College Algebra	Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences, series, and combinatorics. Credit is allowed for only MAT 117 or 113. Fee (online only).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106 or MAT 113 with a C or better or completion of the Unified Placement Test with a score of 60 or higher
MAT	119	Finite Mathematics	Topics from linear algebra, linear programming, combinatorics, probability, and mathematics of finance.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 113, 117, 170, 210 or 270 with C or better or completed the Unified Placement Test with a score of 75 or higher
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-5		
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	243	Discrete Mathematical Structures	Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	270	Calculus with Analytic Geometry I	Real numbers, limits and continuity, and differential and integral calculus of functions of 1 variable. Not open to students with credit in MAT 290. The sequence MAT 270 and 271 may be substituted for MAT 290 to satisfy requirements of any curriculum. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisite: Must have completed MAT 170 with a grade of C or greater or be currently enrolled OR have completed the Calculus Placement Exam with a score of 36 or higher
MAT	271	Calculus with Analytic Geometry II	Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series. Not open to students with credit in MAT 291. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisites: Must have completed either MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	272	Calculus with Analytic Geometry III	Vector-valued functions of several variables, multiple integration, and introduction to vector analysis. The sequence MAT 270, 271, 272 may be substituted to satisfy requirements for MAT 290 and 291. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	MA	Pre-requisite: Must have completed MAT 271 with a grade of C or greater or be currently enrolled.
MAT	275	Modern Differential Equations	Introduces differential equations, theoretical and practical solution techniques. Applications. Problem solving using MATLAB. Credit is allowed for only MAT 275 or 274 toward a mathematics degree. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	MA	Pre-requisites: MAT 266 or MAT 271 with a C or better
MAT	300	Mathematical Structures	Logic and set theory, induction, functions, order and equivalence relations, cardinality. Emphasizes writing proofs.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	L	
MAT	310	Introduction to Geometry	Congruence, area, parallelism, similarity and volume, and Euclidean and non-Euclidean geometry.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT272 with a grade of C or greater or be currently enrolled.
MAT	342	Linear Algebra	Linear equations, matrices, determinants, vector spaces, bases, linear transformations and similarity, inner product spaces, eigenvectors, orthonormal bases, diagonalization, and principal axes. Credit is allowed for only MAT 342 or 343 toward a mathematics degree.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: MAT 267, or MAT 272 with a C or better
MAT	350	Techniques and Applications of Applied Mathematics	Mathematical techniques and applications representative of the range of applied mathematics used in operations research, biology, economics, finance, and sociology. In depth exploration of these techniques in detail by focusing on selected applications.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: MAT 275 (or MAT 274) with D or better; MAT 343 (or MAT 342) with D or better; Co-requisite: STP 420
MAT	371	Advanced Calculus I	Real numbers, completeness, sequences/series, continuity, uniform theorems, derivative, Riemann integral, pointwise/uniform convergence, Taylor's theorem. Credit is allowed for only MAT 371 or 370 toward a mathematics degree.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: MAT 272 (or MAT 267) and MAT 300 (or 243) with C or better
MAT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	411	History and Philosophy of Mathematics	Examines nature of mathematics from origins to present, revealed by its history and philosophy. Strong background in mathematics not required.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	HU & H	Credit is allowed for only IAS 411 or MAT 411
MAT	421	Applied Computational Methods	Numerical methods for quadrature, differential equations, roots of nonlinear equations, interpolation, approximation, linear equations, floating-point arithmetic, and roundoff error.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
MAT	443	Introduction to Abstract Algebra	Introduces concepts of abstract algebra. Not open to students with credit in MAT 444.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	445	Theory of Numbers	Prime numbers, unique factorization theorem, congruences, Diophantine equations, primitive roots, and quadratic reciprocity theorem.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisites: Must have completed MAT300 and MAT342 with a grade of C or greater or be currently enrolled.
MAT	450	Mathematical Models in Biology	Introduces mathematical models in biological systems. Applications range from the cellular level to systems level and may include applications from areas such as physiology, ecology, epidemiology, population biology, computational and systems biology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	462	Applied Partial Differential Equations	Second-order partial differential equations, emphasizing Laplace, wave, and diffusion equations. Solutions by the methods of characteristics, separation of variables, and integral transforms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MAT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
MAT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-3		
MAT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MAT	106	Intermediate Algebra	Topics from basic algebra such as linear equations, polynomials, factoring, exponents, roots, and radicals. Credit is allowed for only MAT 106 or 113.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have ALEKS exam
MAT	142	College Mathematics	Applies basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 106, MAT 113 or MAT 117 with C or better or completed the Unified Placement Test with a score of 60 or higher
MAT	170	Precalculus	Intensive preparation for calculus (MAT 260, 270, and 290). Topics include functions (including trigonometric), matrices, polar coordinates, vectors, complex numbers, and mathematical induction.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 106 with B or better or MAT 113 or MAT 117 with C or better or ALEKS Calculus Placement Exam with a score of 50% or higher or the Unified Placement Test with a score of 75 or higher
MAT	210	Brief Calculus	Differential and integral calculus of elementary functions with applications. Not open to students with credit in MAT 260 or 270 or 290. Fee (online only).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: one of the following with a C or better: MAT 113, MAT 117, MAT 119 or MAT 170 or completed the ALEKS Calculus Placement Exam with a score of 60% or higher
MAT	211	Mathematics for Business Analysis	Topics in business analysis, including: Lagrange multipliers, linear programming, linear algebra, intermediate probability, random variables, discrete distributions, and continuous distributions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Must have completed either MAT 210, MAT 251, MAT 265 or MAT 270 with a grade of C or greater or be currently enrolled
MAT	251	Calculus for Life Sciences	Differential and integral calculus of elementary functions. Introduces differential and difference equations. Emphasizes applications to the life sciences. Not open to students with credit in MAT 210, 260, or 270.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	MA	Pre-requisites: MAT 170 with C or better or completed the ALEKS Calculus Placement Exam with a score of 60% or higher or the Calculus Placement Exam with a score 36 or higher
MBB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	245	Principles of Molecular and Cellular Biology I	Introduces molecular biology, genetic engineering, gene expression/control and evolution, in the context of cellular and organismal physiology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	Pre-requisites: CHM 113 with C or better; Pre/Co-requisite: CHM 116 (with C or better if completed)
MBB	247	Principles of Molecular and Cellular Biology II	Introduces cell biology, metabolism and regulation, bioenergetics, and protein translocation in the context of cellular and organismal physiology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MBB 245 (or BIO 188) with a C or better
MBB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	343	Genetic Engineering and Society	Introduces genetic engineering, with emphasis on applications (transgenic plants and animals, cloning, vaccines, therapeutics, and diagnostics). Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L	Pre-requisites: MBB 247 or BIO 340 with a C or better; Students who have credit for BIO 343, may not enroll in MBB 343
MBB	350	Applied Genetics	Introduces molecular genetics with emphasis on application of genetics to solve biological questions and to engineer organisms for biotechnology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MBB 247 or BIO 340 with C or better; Credit is allowed for only MBB or PLB 350
MBB	355	Introduction to Computational Molecular Biology	Introduces the mathematical skills used in molecular biology, genomics, and bioinformatics.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, or MAT 270 with C or better; Students with credit for BIO 355 or MAT 355 may not enroll in MBB 355
MBB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	440	Functional Genomics	Covers emerging fields of genomics and proteomics. Discusses key technologies and their applications to the study of genomes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 340 with C or better; Credit is allowed for only BIO or MBB 440
MBB	444	Techniques in Functional Genomics	Practical introduction to modern functional genomics techniques, including microarray analysis and DNA sequencing.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre or Co-requisites: BIO 440 or MBB 440 (with C or better if completed)
MBB	445	Techniques in Molecular Biology/Genetics	Molecular genetic principles: plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation, immunologic detection, and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: BIO 340 with C or better; MIC 302 or MBB 245 with C or better; Students with credit for MIC 445 may not enroll in MBB 445
MBB	446	Techniques in Molecular Biology/Genetics Lab	Molecular genetic techniques; plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation; immunologic detection and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: MBB 445 or MIC 445 (with C or better if completed); Credit is allowed for only MBB or MIC 446
MBB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MBB	490	Capstone: Issues in Biotechnology	Integrates science and biotechnology industry issues dealing with intellectual property, regulatory issues, business practices, and commercialization. Both MBB 490 and MBB 491 for L General Studies credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: MBB 247 with C or better; BIO 340 with C or better
MBB	491	Capstone: Issues in Molecular Biosciences	Integrates molecular science and societal issues dealing with ethics, regulatory issues, and societal needs that pertain to molecular biosciences. Both MBB 490 and MBB 491 for L General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisites: MBB 343 with C or better; BIO 340 with C or better
MBB	492	Honors Directed Study		N	RSC	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		
MBB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
MBB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MBB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MBB	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
MCB	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	501	Seminar: Molecular and Cellular Biology Colloquium	Presentation of current research by noted researchers in the field. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	540	Functional Genomics	Functional relevance of genomic sequences; DNA arrays, proteomics, analysis of genomic information for metabolic physiology of organisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MCB	555	Advanced Molecular and Cellular Biology I	Study of structural and functional organization of biomolecules and cells, based on current literature.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	6.		
MCB	556	Advanced Molecular and Cellular Biology II	Continuation of MCB 555.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MCB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MCB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	701	Seminar: Molecular and Cellular Biology Colloquium	Presentation of current research by noted researchers in the field. May be repeated for credit.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MCB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
MCB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MCB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
MCE	548	Multicultural Perspectives on Teaching and Learning	Facilitates understanding of key components related to cultural diversity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
MCE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MCE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
MCE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
MCE	230	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3	C	
MCE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	447	Diversity in Families and Communities in Multicultural Settings	Diversity and the changing role of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3		Pre-requisites: Admission to Professional Teacher Preparation Program
MCE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
MCE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
MCE	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
MCE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MCE	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
MCE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		

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MCE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
MCO	498	Pro Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	N	LEC	N	OPT	College of Public Programs	Arizona State University	1-7		
MCO	120	Media and Society	Role of newspapers, magazines, radio, television, and motion pictures in American society. Credit is allowed for only MCO 120 or 110. Designed for nonmajors.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	
MCO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-3		
MCO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	200	Introduction to Electronic Media	Surveys electronic media in the United States: history, regulation, organization, programming, and effects.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		
MCO	240	Media Issues in American Pop Culture	Examines the production and consumption of popular culture as disseminated by the mass media with emphasis on the societal implications.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		
MCO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	302	Media Research Methods	Surveys research methods used in the social sciences, with a focus on mass communication.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Communication student with a cumulative GPA of at least 2.0
MCO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	418	History of Mass Communication	American journalism from its English and colonial origins to the present day. Development and influence of newspapers, magazines, radio, television, and news gathering agencies.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB & H	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	421	Media Problems	Trends and problems of the mass media, emphasizing editorial decisions in the processing of information.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Minimum 2.25 GPA; Journalism & Mass Comm student OR Graduate Mass Communications student
MCO	430	International Mass Communication	Comparative study of communication and media systems. Information gathering and dissemination under different political and cultural systems.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	G	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	435	Emerging Media Technologies	Surveys new mass communication technologies and media distribution platforms in a convergent mass media environment.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	440	Applied Media Research	Design, conduct, and analysis of applied media research. Students participate in the Cactus State Poll.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: JMC student; JMC 301 with C or better; Minimum 2.5 GPA OR graduate Mass Communication student
MCO	450	Visual Communication	Theory and tradition of communication through the visual media with emphasis on the continuity of traditions common to modern visual media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	HU	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	455	War and Mass Media	Provides a better understanding of the role and impact of the mass media in shaping public perceptions about one of humanity's most monumental undertakings, the act of war. Through a combination of lectures, readings, documentaries, and motion pictures, examines and critically analyzes media portrayals, real and fictional, of issues, events, and the changing dynamic among: the government, the military, and public opinion as shaped by the media.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	456	Political Communication	Theory and research related to political campaign communication. The persuasive process of political campaigning, the role of the media, the candidate, and image creation.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student

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MCO	460	Race, Gender, and Media	Readings seminar designed to give students a probing examination of the interface between AHANA Americans and the mass media in the United States.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	C	Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	465	Sports and Media	Designed for aspiring journalists and media users, explores why great sports journalism is essential to our society. Establishes the goals, dreams, and expectations for sports journalism and introduces ethical philosophy and popular ethical models and decision-making tools. Students then apply these tools to sports journalism.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR a non-Journalism & Mass Comm student with a cumulative GPA of at least 2.0 OR Graduate Mass Communications student
MCO	470	Issues Management and Media Strategy	Strategic aspects of media planning and management in public relations, public affairs, crisis communication lobbying, media ethics, and government relations.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisites: Journalism & Mass Communication student with a cumulative GPA of at least 2.5 OR Graduate Mass Communication student
MCO	473	Sex, Love, and Romance in the Mass Media	The role of the mass media in constructing and/or reinforcing unrealistic mythic and stereotypic images of sex, love, and romance.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.	SB	
MCO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	492	Honors Directed Study		N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6		Pre-requisites: Must be an Honors student
MCO	493	Honors Thesis		N	LEC	N	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6	L	Pre-requisites: Must be an Honors student
MCO	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		
MCO	497	Honors Colloquium		Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-6		
MCO	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	501	Newswriting and Reporting	Designed for graduate students in the MMC program who have undergraduate degrees in nonjournalism areas. Objective is to teach fundamentals of writing and reporting. Fee.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	503	Media Law	Examines philosophical and legal aspects of press freedom. Emphasizes First Amendment theory evolution from 1791 to present.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	510	Media Research Methods	Professional approach to online and library research, getting and using public records, and investigative journalism techniques.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	520	Mass Communication Theories and Process	Analyzes various theoretic models of mass communication with emphasis on the applications of these theories to various professional communication needs.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	522	Mass Media and Society	Mass media as social institutions, particularly interaction with government and public. Emphasizes criticism and normative statements.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	525	21st-Century Media Organization and Entrepreneurship	Focuses on the future of journalism, the future of journalism business organizations and entrepreneurship, new media experiences, online solutions to popular media problems, financial realities of the media, and media innovation.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	530	History, Philosophy, and Ethics of Journalism	Explores contemporary news media ethical problems in a seminar setting. Uses journalism ethical perspectives to obtain keys to unlock contemporary dilemmas surrounding the news media.	N	SEM	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	531	Advanced Broadcast Reporting	News and information practices of networks, stations, and industry. Practice in writing, reporting, and editing with emphasis on video.	N	LEL	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	540	Historical/Legal Methods	Introduces legal and historical methods necessary to conduct qualitative mass communication research.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		
MCO	560	Arizona Media Law	Case study approach to first amendment issues, media access, libel, confidentiality, and invasion of privacy as applied to media organizations in Arizona.	N	LEC	N	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	3.		Pre-requisite: Masters of Mass Communication student
MCO	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		

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MCO	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		Pre-requisite: Masters of Mass Communication student
MCO	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-12		
MCO	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1.		
MCO	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Cronkite School-Journ/Mass Com	Walter Cronkite School of Journalism & Mass Comm	1-4		Pre-requisite: Masters of Mass Communication student
MCO	120	Media and Society	Role of newspapers, magazines, radio, television, and motion pictures in American society. Credit is allowed for only MCO 120 or 110. Designed for nonmajors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
MCO	240	Media Issues in American Pop Culture	Examines the production and consumption of popular culture as disseminated by the mass media with emphasis on the societal implications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
MCO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MCO	418	History of Mass Communication	American journalism from its English and colonial origins to the present day. Development and influence of newspapers, magazines, radio, television, and news gathering agencies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & H	
MCO	430	International Mass Communication	Comparative study of communication and media systems. Information gathering and dissemination under different political and cultural systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
MET	150	Introduction to Engineering Technology	Introduces mechanical, manufacturing, and aeronautical engineering technology. Covers aspects of the industries utilizing these majors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		
MET	160	CADD and Solid Modeling	Uses 3-D solid modeling software to model mechanical parts and produce valid engineering drawings, including use of geometric dimensioning and tolerancing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
MET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
MET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	211	Statics	Vectors, forces and moments, force systems, equilibrium, analysis of basic structures and structural components, friction, centroids, and moments of inertia. May be repeated for credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 111 or PHY 121 with a D or better; APM 265, MAT 260 or MAT 270 with D or better
MET	230	Introduction to Engineering Materials	Introduces materials and their properties, emphasizing basic concepts and structures and how these properties relate to manufacturing and design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2.		
MET	231	Manufacturing Processes	Design documentation and material processes on plastics, ferrous and nonferrous materials, emphasizing orthographic projection, geometric dimensioning and tolerances.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 160 and MET 230 with a D or better
MET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	300	Applied Material Science	Principles of materials science emphasizing concepts relevant to design, manufacturing, and use. Covers metals, polymers, ceramics, and composites.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation BAS student, OR MET 231 with D or better
MET	302	Welding Survey	Theory and application of industrial welding processes; introductory welding metallurgy and weldment design; SMAW, GTAW, GMAW, oxyacetylene, and brazing experiences.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisite: College of Technology and Innovation or Fulton Engineering students

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MET	309	Nondestructive Testing and Quality Assurance	Part and material inspection using metrology and nondestructive inspection tools and techniques. Theory and application with use of pertinent standards.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: MET 231 with D or better OR Materials Joining Mfg Tech or Manufacturing Tech & Mgt BAS student
MET	313	Applied Mechanics of Materials	Stress, strain, stress-strain relations. Axial, shear, bending, torsional and combined loads and deflections.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisite: MET 211 or CEE 210, or MAE 212, or CON 221 with D or better OR College of Technology and Innovation MS Tech student
MET	314	Applied Mechanics of Materials Laboratory	Measurements of loads and deformations relating stress and strain in axial, shear, bending, torsional, and combined loading configurations.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisites: MET 313 or MAE 213 or MSE 211 or CON 223 or CEE 213 with a D or better; or be co-enrolled in one of the courses
MET	321	Introduction to Automotive Engineering	Engineering principles and the design of ground vehicles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312; MET 313; MET 340 completed with a grade of D or better
MET	331	Machine Design I	Applies mechanics to design of machine elements and structures. Stress analysis, failure modes, tolerances, cylindrical fits, and shaft design.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Met 313 or CEE 213 or MAE 213 or CON 223
MET	340	Engineering Thermo-Fluids I	First and second laws of thermodynamics, systems, processes, equations of state, property tables. Fluid statics, conservation of momentum, Bernoulli's equation, applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: PHY 112 or PHY 131 with D or better; APM 266, APM 271, MAT 261, MAT 266 or MAT 271 with D or better
MET	341	Manufacturing Analysis	Organizational and functional requirements for effective production. Analysis of industrial specifications, geometric dimensioning and tolerancing, costs, and group technology. Writing assembly production plans.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231 with D or better or College of Technology and Innovation BAS or MS Tech student
MET	344	Casting and Forming Processes	Analyzes various forming processes to determine load requirements necessary for a particular metal-forming operation. Information used to select equipment and design tooling. Metal casting processes and design of castings. Introduces powder metallurgy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231; MET 300 (or MSE 250) with D or better OR College of Technology and Innovation BAS or MS Tech student
MET	345	Advanced Manufacturing Processes	Material removal processes emphasizing advanced turning, milling, and machinability studies using cutting tools. CNC programming for machining and turning centers.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231 with D or better
MET	351	Introduction to Automation	Introduces automation. Topics include assembly techniques, fixed and flexible automation systems, robots, material-handling systems, sensors, and controls.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 210 or EEE 202
MET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	396	Professional Orientation	Topics related to a successful career in engineering technology industry. Includes safety, life-long learning, ethics, and career planning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1.		Pre-requisite: Junior or Senior standing
MET	400	Materials and Joining Processes	Effects of joining processes on metals and composites. Thermal cycle effects on solid-state and liquid-solid material transformations.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	401	Quality Assurance	Statistical quality control methods, design of experiments, sampling, gauge requirements and specifications, use of quality assurance tools.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: APM 301 with D or better. Students who have credit for MET 501, may not enroll in MET 401
MET	402	Advanced Material Joining	In-depth analysis of common materials-joining processes and their process parameters. Includes automation, soldering, and adhesive bonding. Lecture, lab.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	409	Applied Engineering Economics	Fundamentals of engineering economics in a practical, industry-based approach. Includes effects of depreciation, taxes, inflation, and replacement analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for MET 509, may not enroll in MET 409
MET	410	Manufacturing Resource Management	Measures like cycle time, throughput, capacity, work-in-process, inventory, variability, and how they drive operating relationships in a factory. Credit is allowed for only MET 410 or 510.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 341 with D or better
MET	415	Manufacturing Simulation	Computer simulation of manufacturing operations. Discrete event simulation models range from individual processes to whole factories.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 341 with D or better. Students who have credit for MET 515, may not enroll in MET 415
MET	416	Applied Computer-Integrated Manufacturing	Techniques and practices of computer-integrated manufacturing as applied in a broad range of industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.	CS	Pre-requisites: MET 341
MET	418	Composites Materials Manufacturing	Introduces composite materials and associated manufacturing issues, including tooling, processes, and quality control. Related issues, including testing and joining. Credit is allowed for only MET 418 or 518.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 300 or MSE 250. Students who have credit for MET 518, may not enroll in MET 418
MET	421	Vehicle Powertrains	Internal combustion engine design, performance and operation, and power transmission systems within vehicles.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312, MET 313, MET 340, with a grade of D or better
MET	423	Vehicle Chassis and Running Gear Design	Design and manufacture of chassis, structures, steering and braking systems and components, wheels and tires, suspension systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:AET 312, MET 331 completed with a grade of D or better
MET	424	Vehicle Electrical Systems	Vehicle electrical power and signal systems, computer control and analog control systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: EST 210; MET 321; MET 421
MET	426	Vehicle Thermal Design	Heat management in vehicle systems, including thermal design of engine and transmission cooling systems, cabin heating, and air conditioning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 421; Pre/Co-requisite: MET 434
MET	427	Vehicle System Integration and Testing	Systems engineering principles. Design of the interfaces between vehicle subsystems. Testing of integrated systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites:MET 423, & MET 424 with a grade of D or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MET	432	Engineering Thermo-Fluids II	Thermodynamic analysis of mixtures and power cycles. Design and analysis of fluid systems, conduction heat transfer, and introduction to convection and radiation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 340 or MAE 240; Credit is allowed for only EGR or MET 432
MET	433	Thermal Power Systems	Analyzes gas power, vapor power, and refrigeration cycles. Components of air conditioning systems. Direct energy conversion. Psychrometry. Analyzes internal combustion engines and fluid machines.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	4.		Pre-requisites: MET 432 with D or better OR College of Technology and Innovation MS, MSE, MS Tech or PhD student
MET	434	Engineering Thermo-Fluids III	Transient conduction, convection and radiation heat transfer, heat exchangers, thermo-fluid systems engineering.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 432 with a grade of D or better, or currently enrolled
MET	435	Alternate Energy Sources	Alternate energy systems, energy use and its impact on the environment, and demonstrating practical alternative energy sources to fossil fuels.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	436	Turbomachinery Design	Applies thermodynamics and fluid mechanics to the analysis of machinery design and power cycle performance predictions.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 434 with D or better; MET 340, ECE 340 or ETC 340 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	437	Design for Materials Joining	Uses design principles to analyze structures and determine appropriate weld/braze/solder or adhesive joint size. Uses welding codes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
MET	438	Machine Design II	Applies mechanics to the design of machine elements and structures. Emphasizes basics of gears, springs, brakes, clutches, and bearings.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 331 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	440	Finite Element Analysis	Analyzes machine elements, frames, and aerospace structures employing finite element analysis and software. Includes sensitivity analysis and estimating accuracy.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 331 with D or better
MET	442	Specialized Production Processes	Nontraditional manufacturing processes, emphasizing EDM, ECM, ECG, CM, PM, HERF, EBW, and LBW.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 231
MET	443	CNC Computer Programming	Theory and application of N/C languages using CAM software and CNC machine tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 345
MET	444	Production Tooling	Design and fabrication of jigs, fixtures, and special industrial tooling related to manufacturing methods.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 345. Students who have credit for MET 504, may not enroll in MET 444
MET	452	Implementation of Robots in Manufacturing	Robotic workcell design, including end effectors, parts presenters, and optimum material flow.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 351 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	455	Automation Systems Integration	Applies sensors and devices and their integration with PLCs and computers into automated devices and systems.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: MET 351
MET	460	Capstone Project I	Group project designing, evaluating, and analyzing components, assemblies, and systems. Develop products/manufacturing techniques demonstrating state-of-the-art technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Senior academic level; MET 331 and MET 345 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	461	Capstone Project II	Small-group projects applying manufacturing techniques, with emphasis on demonstrating state-of-the-art technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Senior academic level; MET 460 with D or better OR Technology and Innovation or Fulton Engineering graduate student
MET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-6		
MET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
MET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre-requisites: Minimum Junior status; College of Technology and Innovation or Fulton Engineering student
MET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Pre-requisites: Minimum Junior standing; Manufacturing Engineering Tech student OR Technology and Innovation or Fulton Engineering graduate student
MET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
MET	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	501	Statistical Quality Control Applications	SPC problem-solving techniques for implementation in industrial setting; design and analysis of experiments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater. Students who have credit for MET 401, may not enroll in MET 501
MET	502	Specialized Production Processes	Specialized production processes including lasers, electronic beam, abrasive and water jet, and chemical and thermal processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	504	Applications of Production Tooling	Design and fabrication of fixtures, jigs, templates, and specialized industrial tooling for manufacturing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater. Students who have credit for MET 444, may not enroll in MET 504

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MET	507	Manufacturing Enterprise	Organization and project management of cellular manufacturing methods, including IIT and lean manufacturing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	509	Applied Engineering Economics	Fundamentals of engineering economics in a practical, industry-based approach. Includes effects of depreciation, taxes, inflation, and replacement analysis.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater. Students who have credit for MET 409, may not enroll in MET 509
MET	510	Manufacturing Resource Management	Measures like cycle time, throughput, capacity, work-in-process, inventory, variability, and how they drive operating relationships in a factory. Credit is allowed for only MET 510 or 410.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	512	Introduction to Robotics	Introduces industrial robots. Topics include: robot workspace, trajectory generation, robot actuators and sensors, design of end effectors, and economic justification. Application case studies.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level OR Graduate or Non-degree students
MET	513	Advanced Automation	Analysis and design of hard and flexible automation systems. Particular attention to material-handling technology.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Minimum Senior Standing; College of Technology and Innovation or Fulton Engineering
MET	514	CNC Computer Programming	Theory and application of N/C languages using CAM software and CNC machine tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater
MET	515	Manufacturing Simulation	Computer simulation of manufacturing operations. Discrete event simulation models range from individual processes to whole factories.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater. Students who have credit for MET 415, may not enroll in MET 515
MET	516	Applied Computer-Integrated Manufacturing	Techniques and practices of computer-integrated manufacturing as applied in a broad range of industry.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level OR Graduate or Non-degree students
MET	518	Composites Materials Manufacturing	Introduces composite materials and associated manufacturing issues, including tooling, processes, and quality control. Related issues, including testing and joining. Credit is allowed for only MET 518 or 418.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: College of Technology and Innovation or Fulton Engineering students with senior academic level or greater. Students who have credit for MET 418, may not enroll in MET 518
MET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		
MET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		
MET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
MET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
MGT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-3		
MGT	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
MGT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		
MGT	300	Organization and Management Leadership	Analyzes strategic, behavioral, and human resource management perspectives, including principles of strategic management and leadership of human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		WP Carey BS or BA student, or Business Minor student; PGS 101 or PGS 304 or SOC 101 or SOC 301 with C or better.

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MGT	301	Principles of Management	Introduces the theoretical and practical foundations of organizations with a focus on individuals, groups, and organizational systems.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: School of Global Management and Leadership student.
MGT	302	Principles of International Business	Multidisciplinary analysis of international economic and financial environment. Operations of multinational firms and their interaction with home and host societies.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.	G	Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA, and 56 earned hours; Must have completed ECN 212 or 214 with a grade of C or greater.
MGT	303	Honors Organizational Strategies, Leadership, and Behavior	Overview of business strategy principles, management processes, motivation, and leadership	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Honors student; PGS 101 or PGS 304 or SOC 101 or SOC 301 with grade of C or better.
MGT	310	Collaborative Team Skills	Development of skills in managing and working in collaborative environments. Theories and applications in small group dynamics and team facilitation.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student OR Non-business student with min 3.5 ASU cum GPA and min 56 earned hours.
MGT	320	Organizational Behavior	Management processes, fundamentals of business-level strategy, individual difference issues, motivation and leadership of people in organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: W.P. Carey Management BS student with min 56 earned hours; Pre- or co-requisite MGT 300.
MGT	350	Seminar in International Business	Broad exposure to global business; cross-cultural differences across business disciplines; European Union history and future; impact of exchange rates.	N	FLD	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student; SCM 300 with C or better, OR Non-business student with min 2.0 ASU cum GPA and 56 earned hrs and MGT 380 with C or better
MGT	380	Management and Strategy for Nonmajors	Introduces the functions and applications of management in organizations, including controlling, decision making, leadership, motivation, planning, and social responsibility. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Non-business student with a minimum ASU cumulative GPA of 2.00 and a minimum of 56 earned hours, OR Non degree or Grad student
MGT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W. P. Carey BS or BA student; Pre- or Co-requisite: ACC 240 or ACC 241 with C grade or better.
MGT	400	Cross-Cultural Management	Cultural role in international business relations; applied principles of cross-cultural communications, negotiations, and management; regional approaches to business relations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	C & G	Pre-requisites: WP Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 300 or 303 or 320 or 380 with C or better.
MGT	410	Responsible Management	Values, core beliefs, legal and ethical mandates and cultural norms as they apply to the conduct of organizations; application through a Service Learning project.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey Management BS student; Pre-requisites MGT 300, and MGT 320 or MGT 303, and ENG 302 with grade of C or better.
MGT	411	Leading Organizations	Comprehensive overview of leadership in organizations. Provides students with understanding of leadership research and its applications to global organizations and the development of leaders.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	4.		Pre-requisites: Must be a Global Business/Ldrshp Mngt or Global Business/Human Resource student with conditional or professional status AND completed MGT 301 with a grade of C or greater or be currently enrolled.
MGT	412	Managing Human Resources	Overview of domestic and global human resources management topics pertinent to managers and first-line supervisors, as well as those with interest in human resources management.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Global Business/Ldrshp Mngt or Global Business/Human Resource student with conditional or professional status, must not have earned credit for HRM 410, AND completed MGT 301 with a grade of C or greater.
MGT	420	Human Resource Management	Development of skills and knowledge to lead associates effectively: hiring, developing, evaluating, retaining, and rewarding employees. Preparation for leadership roles.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: WP Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 300 or 303 or 320 or 380 with C or better
MGT	440	Entrepreneurship	Provides students with a framework and a skill set for identifying, evaluating, valuing, and developing entrepreneurial opportunities. Challenges students to develop and refine their individual entrepreneurial perspective. Case-based and interactive instruction.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student, MGT 300 or MGT310 or MGT 303 completed with a grade of C or greater.
MGT	445	Business Plan Development	Develops a complete strategic business plan emphasizing the planning process undertaken by successful small business owners and entrepreneurs.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: W.P. Carey BS or BA student, OR non-business students with a minimum 2.5 ASU cumulative GPA and at least 56 earned hours; MGT 440 completed with a grade of C or greater.
MGT	450	Consulting Projects	Describes and analyzes business processes. Generates and evaluates alternatives. Creates improvement and implementation plans.	N	FLD	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: W.P. Carey BS or BA student. Pre-requisites ENG 302 or 301, FIN 300 or FIN 302 or FIN 303, MKT 300 or MKT 302 or MKT 303, and MGT 300 or MGT 303 with C or better.
MGT	459	International Management	Concepts and practices of multinational and foreign firms. Objectives, strategies, policies, and organizational structures for operating in various environments.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	G	Pre-reqs: WP Carey BS or BA student, OR non-business student with min 3.5 ASU cum GPA and min 56 earned hours; MGT 302 or ECN 306 with a grade of C or better;
MGT	460	Strategic Management	Systems theory of organizations, strategy formulation and administration in organizations, creating organizational cohesiveness, and leading change within organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	3.	L	Pre-requisites: W.P. Carey Management BS student; Pre-requisite MGT 410, and FIN 300 or FIN 302 or FIN 303, and MKT 300 or MKT 302 or MKT 303 with C or better.
MGT	464	Collaborative Design Development I	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	5.	L	Pre-requisites: Department approval; application process.
MGT	465	Collaborative Design Development II	Team-based product development course featuring applied projects. Open to senior students from business, engineering, design, and other disciplines.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	5.	L	Pre-requisites: Department approval; application process
MGT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey Management BS student.
MGT	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Management	1-6		Pre-requisites: Must be an Honors student
MGT	493	Honors Thesis		N	THE	N	Z1	W.P. Carey School of Business	Department of Management	1-6	L	Pre-requisites: Must be an Honors student
MGT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W.P. Carey BS or BA student OR non-business with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and min 56 earned hrs; MGT 300 or 302 or 303 or 310 or IBS 300 with C or better

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MGT	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-6		
MGT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-7		Pre-requisites: W. P. Carey BS or BA student OR non Business students with a minimum GPA of 2.50 and either at least 56 earned hours or non degree students OR Graduate students
MGT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-3		Pre-requisites: W. P. Carey BS or BA student OR non Business students with a minimum GPA of 2.50 and either at least 56 earned hours or non degree students OR Graduate students
MGT	502	Organization Theory and Behavior	Understands human side of organizations through management theories and applications. Develops knowledge and skills for successful management of self and others.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: Specific W.P. Carey students
MGT	503	Human Resources Management: Principles and Skills	Emphasizes strategies for managing human resources and implementing HRM programs and policies that make people more productive and satisfied.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	504	Ethics and Corporate Social Responsibility	Reviews practical and conceptual tools to deal with the ethical implications of a variety of types of managerial decisions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	505	Leadership and the Knowledge Economy	Examines organizational processes that seek synergies between the information processing capacity of IT and the creative capacity of humans.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisite: Applied Leadership & Management graduate student
MGT	512	Professional Relationship Management	Explores theories, methods, skills, and practices central to development of professional-level expertise in the management of relationships in the workplace.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in either the Accountancy & Applied Leadership graduate plan or the Applied Leadership & Management graduate plan.
MGT	513	Leadership Skills and Principles	In-depth study of traditional and emerging ways to demonstrate leadership effectively with emphasis on leadership development and coaching activities.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in either the Accountancy & Applied Leadership graduate plan or the Applied Leadership & Management graduate plan
MGT	514	Entrepreneurial Leaders	Applies leadership concepts to entrepreneurial processes. Considers independent entrepreneurs, as well as intrapreneurs within organizations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Applied Leadership & Management graduate plan; MGT 513 with C or better
MGT	515	The Neuroscience of Leadership	Provides a rigorous understanding of how the human brain supports leaders in thought, perception, decision-making, affect, action, and social processes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Mgt & Leadership graduate student in Acct & Applied Leadership or Applied Leadership & Mgt. Applied Leadership & Mgt students must have completed MGT 502, 503, 504, and 505 with C or better
MGT	522	Human Resource Activity and the Management of Diversity	Applies general and human resource management principles to work effectively with a diverse spectrum of people.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
MGT	523	Performance Management	Addresses effective management of people in organizations. Considers evaluating and improving performance using concepts and application.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	559	International Management	Studies international and cross-cultural influences on management processes and development of global leadership capabilities for experienced management professionals.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-3		Pre-requisites: Must be a W.P. Carey degree seeking Graduate student
MGT	561	Advanced Integrated Project	Capstone project of the high-technology ASU MBA. Student teams develop business plans for new technology-based products.	Y	FLD	Y	GNA	W.P. Carey School of Business	Department of Management	1-6		Pre-requisites: MBA degree student
MGT	570	Management Consulting	Develops understanding of how internal and external consultants add value.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		
MGT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	W.P. Carey School of Business	Department of Management	0-12		
MGT	588	Strategic Leadership	Explores the general manager as organizational leader. Focuses on competitive advantage and how each functional area contributes to it.	N	DIS	N	OPT	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	589	Strategic Management	Formulation of strategy and policy in the organization, emphasizing the integration of decisions in the functional areas.	N	DIS	N	GNA	W.P. Carey School of Business	Department of Management	2-4		Pre-requisites: MBA degree student
MGT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Management	0-12		Pre-requisites: Graduate W.P. Carey students or Public Administration MPA student
MGT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	IND	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MGT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: MBA degree student
MGT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	0-12		
MGT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Management	1.		
MGT	596	Global Strategic Management Project	Experientially examines the interaction among the strategic forces within an organization with the competitive forces in the global environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Management	3.		Pre-requisites: School of Global Management and Leadership graduate student in Applied Leadership & Management; MGT 502, 503, 504, and 505 with C or better
MGT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
MGT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Management	1-12		
MGT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Management	1-12		
MGT	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		
MGT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
MGT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	SEM	Y	Z1	W.P. Carey School of Business	Department of Management	1-15		
MGT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	W.P. Carey School of Business	Department of Management	1.		
MGT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	W.P. Carey School of Business	Department of Management	1-15		
MGT	300	Organization and Management Leadership	Analyzes strategic, behavioral, and human resource management perspectives, including principles of strategic management and leadership of human resources.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		WP Carey BS or BA student, or Business Minor student; PGS 101 or PGS 304 or SOC 101 or SOC 301 with C or better.
MGT	460	Strategic Management	Systems theory of organizations, strategy formulation and administration in organizations, creating organizational cohesiveness, and leading change within organizations.	N	DIS	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.	L	Pre-requisites: W.P. Carey Management BS student; Pre-requisite MGT 410, and FIN 300 or FIN 302 or FIN 303, and MKT 300 or MKT 302 or MKT 303 with C or better.
MGT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-12		Pre-requisites: W.P. Carey Management BS student.
MGT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		Pre-requisites: W.P. Carey BS or BA student OR non-business with min 2.5 ASU cum GPA, min 2.5 ASU bus GPA and min 56 earned hrs; MGT 300 or 302 or 303 or 310 or IBS 300 with C or better
MGT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Faculty of Business Administration	1-3		Pre-requisites: W. P. Carey BS or BA student OR non Business students with a minimum GPA of 2.50 and either at least 56 earned hours or non degree students OR Graduate students

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MHI	500	Research Methods	Course on research methods in a specific discipline.	Y	THE	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	538	Innovation and the Individual	Introduces the role of the innovator, including the essential behaviors of risk taking, managing workload, and addressing the challenges of innovation.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Masters of Healthcare Innovation
MHI	540	Understanding and Applying Principles of Evidence-Based Practice	Understanding how application of evidence-based practice principles assists healthcare professionals to provide the best care. May be repeated once for credit.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to the Masters of Healthcare Innovation
MHI	542	Systems Thinking in a Complex Environment	Studies basic and advanced systems principles as they relate to the American healthcare system. Specific emphasis is given to system assessment, designing system interventions, and managing system dysfunction from the innovator's perspective.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	544	Innovations in Information Systems	Allows students to develop their own learning goals around the innovative use of technology to: critically appraise and evaluate the use of technology to access information; develop skills in maximizing the use of technology to advance practice, thinking, and decision making; advance the integration of human potential and available technology; and develop strategies to address the competing priorities of technology, confidentiality, safety, high reliability principles, full disclosure to the public, and risk management. May be repeated once for credit.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	546	Communication for Innovation	Overview of traditional, contemporary and innovative communication strategies in the 21st century.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	548	Advanced Principles and Concepts of Innovation	Explores and analyzes the innovation in complex systems, focusing on developing specific skills for successful innovations.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	550	Healthcare Policy and Innovation	Introduces the political, organizational, and economic dimensions of healthcare policy, emphasizing strategies for innovative policy and practice.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	552	Financing for Innovation	Provides an overview of healthcare economics; develops budgeting, planning, and management skills; and culminates in financial analysis skills necessary to facilitate management decision making or writing business plans or grant proposals.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
MHI	554	Outcomes Evaluation	Outcomes measurement, management, and evaluation for healthcare practitioners and/or leaders. May be repeated once for credit.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	561	Capstone Innovation Project I	Capstone project to learn the active skills of healthcare innovation using an adapted IDEO model.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Admission to Master of Healthcare Innovation degree
MHI	562	Capstone Innovation Project II	Introduces the process of conceptualizing an innovation and building a plan or proposal to move forward with the innovation in either an entrepreneurial or intrapreneurial context.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
MHI	563	Capstone Innovation Project III	Finalizes the process of conceptualizing an innovation and building a plan or proposal to move forward with the innovation in either an entrepreneurial or intrapreneurial context.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
MHI	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
MHI	679	Biostatistics: Principles of Statistical Inference.	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
MHI	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
MHL	140	Music as Culture	Introduces a range of practical and intellectual challenges presented by encounters with various kinds of music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must be a freshman
MHL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MHL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	201	Mac Literacy for Musicians	Instruction in basic Macintosh computer literacy, including generic applications and music-specific programs with hands-on experience. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	CS	
MHL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		

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MHL	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MHL	341	Music History	Western music from the Greeks to the present day. Need not be taken in sequence with MHL 342.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music student; MHL 140 with a C or better or currently enrolled; MTC 221 with a C or better or currently enrolled
MHL	342	Music History	See MHL 341.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC221 with a C or better
MHL	344	Music in World Cultures	Examines the relations among music, dance, theatre, religion, and social status in Asia, Africa, Oceania, Europe, and the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & G	
MHL	352	The Evolution of Jazz	Origin, development, and styles of jazz music and its exponents.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	H	Pre-requisites: Music student; MTC 223 with C or better
MHL	363	Survey of Russian Music	Examines music and musical life in Russia, the Soviet Union, and the post-Soviet C.I.S. from the Middle Ages to the present.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	Pre-requisites: Music student; MHL 342 with C or better
MHL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MHL	438	Topics in 18th-Century Music	Selected topics exploring the musical styles of the 18th century and their cultural contexts.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	H	Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 223 with C or better
MHL	439	Topics in 19th-Century Music	Selected topics exploring the musical styles of the 19th century and their cultural contexts.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	L & H	Pre-requisites: Must be a Music student; must have completed MHL341 AND MHL342 AND MTC223 with a C or greater or be currently enrolled
MHL	440	Music Since 1900	Examines stylistic trends, major composers and their works, and cultural contexts in music since 1900.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L or HU	Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 223 with a C or greater
MHL	456	History of Opera	Development of opera from its creation ca. 1600 to present. Emphasis placed on major stylistic developments and representative works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 222 with C or better
MHL	466	North American Indian Music	Various styles of Indian music in the United States, Canada, and Mexico. Open to Music majors and nonmajors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	(L or HU) & C	
MHL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	492	Honors Directed Study		N	THE	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MHL	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MHL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music student; MHL 341 with C or better; MHL 342 with C or better; MTC 222 with C or better
MHL	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MHL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MHL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MHL	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	532	Music Bibliography	Major historical and analytical writings; systematic and historical collections of music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Graduate Music student
MHL	535	Medieval Music	Music of Europe in the Middle Ages, Gregorian chant, religious and secular monophony and polyphony to 1400.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Graduate Music student
MHL	536	Music of the Renaissance	Music in Europe, with emphasis on stylistic concepts and changes, ca. 1400-1580.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Graduate Music student
MHL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		

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MHL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Graduate Music student
MHL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Graduate Music student
MHL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	647	Topics in American Music	Selected topics in the history of music. Composers working in the Americas with emphasis upon music since 1900.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	657	Topics in Symphonic Literature	Examines the evolution of the symphony and symphonic poem from the early classic era through the 19th century, with emphasis on the analysis of selected works.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	664	History of Music Instruments	Surveys the history and development of music instruments in traditional, folk, and art cultures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	668	Introduction to Ethnomusicology	Introduces the theory and methodology of the discipline, including bibliography, fieldwork, transcription, analysis, and organology.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	670	Area Studies in Ethnomusicology	Study of the music of a particular culture, country, or area (e.g., music of Mexico, Latin America, China, Africa).	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	675	History of Choral Music	Major choral works.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MHL	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MHL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MHL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MHL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MIC	205	Microbiology	Introductory microbiology, emphasizing basic principles of microorganisms (bacteria, protozoa, algae, fungi, and viruses) and the role they play in health, ecology, and applied fields. May not be used for Microbiology credit unless a diagnostic test is passed. Both MIC 205 and MIC 206 required for SG General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SG	

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MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SG	
MIC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-3		Pre-requisite: Freshman standing; Maximum 25 hours
MIC	205	Microbiology	Introductory microbiology, emphasizing basic principles of microorganisms (bacteria, protozoa, algae, fungi, and viruses) and the role they play in health, ecology, and applied fields. May not be used for Microbiology credit unless a diagnostic test is passed. Both MIC 205 and MIC 206 required for SG General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SG	Pre-requisites: CHM 101 or CHM 113 with a D or better
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	SG	Pre-requisites: MIC 205 or MIC 220 with a D or better, or co-enrolled in MIC 205 or MIC 220
MIC	220	Biology of Microorganisms	Introductory microbiology for students majoring in the life sciences. Detailed study of microbial cells, their structure, genetics, physiology, and taxonomy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: CHM 116 and BIO 188 (or MBB 245)
MIC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	298	Honors Directed Study		N	RSC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
MIC	302	Advanced Bacteriology Laboratory	Advanced lab techniques in bacterial growth, physiology, and genetics, with an emphasis on quantitative data and formal lab reports. Both MIC 302 and 401 must be taken to secure L General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.	L	Pre-requisite: MIC 206 with C or better; MIC 220 with C or better
MIC	314	HIV/AIDS: Science, Behavior, and Society	Overview of the basic biological, behavioral, and psychosocial aspects of HIV disease and AIDS.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	360	Bacterial Physiology	Mechanisms and control of cell metabolism, structures, and functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: MIC 220 with C or better
MIC	379	Medical Bacteriology	Principles of medical bacteriology with emphasis on bacterial infections, diagnostic testing, clinical symptoms, pathogenesis, and treatments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: MIC 220
MIC	380	Medical Parasitology	Parasitic diseases of humans, including life cycle events and clinical manifestations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: with a C or better, MIC 220
MIC	381	Pathogenic Microbes	Human host-bacterial interactions in infectious diseases with emphasis on pathogenesis and molecular mechanisms of bacterial virulence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MIC 220 and MIC 360 with a C or better
MIC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	401	Research Paper	Paper of 15 or more pages based on library or lab research in collaboration with a faculty member. Required of all Microbiology majors. Both MIC 302 and 401 must be taken to secure L General Studies credit.	N	RSC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	L	Pre-requisite: MIC 302 with C or better
MIC	402	Service Learning	K-12 tutoring internship; learning activities employed were originally developed as part of the Bio Reach Program. Requires weekly reflective writing. Fee.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	Pre-requisite: MIC 206 with C or better; MIC 220 with C or better
MIC	420	Immunology: Molecular and Cellular Foundations	Molecular and cellular foundations of immunology. Antibody/antigen interactions, cellular response, cytokines, immunogenetics, immunoregulation, autoimmunity, psychoneuroimmunology research/medical perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3-4		Pre-requisites: Mic 220, with a grade of C or better
MIC	421	Experimental Immunology	Introduces the basic techniques, methods, and assays used in immunology. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: MIC 302 with a grade of C or better
MIC	425	Advanced Immunology	Surveys recent advances in immunology, including lymphocyte membranes, lymphokines/biochemistry, molecular genetics, theoretical immunology, immunoregulation, neuroimmunology, and immunologic diseases.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: MIC 420 with C or better
MIC	426	Medical Immunology	Concepts and clinical applications of medical immunology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or MBB 245) and BIO 188 (or MBB 247) and BIO 353 with a C or better
MIC	427	Immunoneuropsychology: Research Foundation	Mind and the immune system's mutual influence (including neuroimmunologic diseases), with an emphasis on the molecular and cellular mechanisms involved.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: MIC 420, or PSY 325, or PSY 425, or BIO 467 with C or better. Students who have credit for PSY 427, may not enroll in MIC 427
MIC	428	Immunophilosophy	Integrates immunology and philosophy, including psychoneuroimmunology and the mind-body problem, and immunologic/psychologic perspectives on self and self-identity.	N	DIS	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MIC 420 or PHI 317 with a C or better. Students who have credit for PHI 428, may not enroll in MIC 428
MIC	441	Bacterial Genetics	Surveys genetic exchange and regulatory processes in bacteria and their viruses. Bacteria and viruses as tools in genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisite: BIO 340 with C or better; MIC 220 with C or better
MIC	442	Bacterial Genetics Laboratory	Techniques of mutagenesis, mapping, and strain and genetic library construction.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.		Pre/Co-requisite: MIC 441
MIC	445	Techniques in Molecular Biology/Genetics	Molecular genetic principles: plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation; immunologic detection, and electrophoresis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre-requisites: BIO 340 with C or better; MIC 302 or MBB 245 with C or better; Students with credit for MBB 445 may not enroll in MIC 445
MIC	446	Techniques in Molecular Biology/Genetics Lab	Molecular genetic techniques; plasmid construction, purification, and characterization; PCR; mutagenesis; hybridization and sequence analysis; protein quantitation; immunologic detection, and electrophoresis.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		Pre/Co-requisites: MBB 445 or MIC 445 (with C or better if completed); Credit is allowed for only MBB 446 or MIC 446

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MIC	461	Geomicrobiology	Past and present interactions among microbial life, geological materials, and biogeochemical cycles involving carbon, sulfur, phosphate, nitrogen, and metals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	470	Bacterial Diversity and Systematics	Biology, classification, and enrichment culture of the nonpathogenic bacteria. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MIC 302 with C or better
MIC	475	Astrobiology	Origin, early evolution, distribution, and future of life on Earth and elsewhere in the cosmos.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	485	General Virology	Fundamental principles of viruses, their molecular biology, replication, genetics, and pathogenesis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: MIC 206 with C or better; MIC 220 with C or better
MIC	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors student
MIC	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
MIC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	495	Undergraduate Research	Supervised research in microbiology.	N	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
MIC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-6		
MIC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
MIC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
MIC	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	527	Neuroimmunology	Studies the mind's influence on immunity and the immune system's influence on the mind, neuroimmunologic diseases, and the neuroimmunological circuitry involved.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	585	Molecular Virology	Selected topics concerning molecular aspects of eukaryotic virus replication and pathogenesis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
MIC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MIC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
MIC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		

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MIC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
MIC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
MIC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
MIC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
MIC	380	Medical Parasitology	Parasitic diseases of humans, including life cycle events and clinical manifestations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MIC	420	Immunology: Molecular and Cellular Foundations	Molecular and cellular foundations of immunology. Antibody/antigen interactions, cellular response, cytokines, immunogenetics, immunoregulation, autoimmunity, psychoneuroimmunology research/medical perspectives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3-4		
MIC	443	The Microbial Universe	Diversity and physiology of microorganisms with emphasis on recent advances in the biology of microorganisms of environmental and medical importance. Not open to students with credit in MIC 205.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: BIO 353 or LSC 353 with C or better; LSC 445 or MIC 444 with C or better or co-enrolled in MIC 444
MIC	444	The Microbial Universe Laboratory	Techniques used to explore the microbial universe with emphasis on structural, metabolic, genetic, and growth characteristics relevant to the identification and characterization of microorganisms of environmental and medical importance. Not open to students with credit in MIC 206. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.		Pre-requisite: LSC 444 or MIC 443 with C or better or co-enrolled in MIC 443
MIC	205	Microbiology	Introductory microbiology, emphasizing basic principles of microorganisms (bacteria, protozoa, algae, fungi, and viruses) and the role they play in health, ecology, and applied fields. May not be used for Microbiology credit unless a diagnostic test is passed. Both MIC 205 and MIC 206 required for SG General Studies credit.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SG	Pre-requisites: CHM 101 or CHM 113 with a D or better
MIC	206	Microbiology Laboratory	Principles and lab techniques used in identifying and handling microorganisms. Both MIC 205 and 206 must be taken to secure SG General Studies credit. Fee.	N	LAB	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1.	SG	Pre-requisites: MIC 205 or MIC 220 with a D or better, or co-enrolled in MIC 205 or MIC 220
MIC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
MIS	101	Introduction to the Military I	Overview of mission, organization, and structure of the Army and its role in national defense; discussion of current military issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	102	Introduction to the Military II	Introduces problem-solving methods, critical thinking, decision making, and group cohesion as applied in a military environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-3		Pre-requisite: Freshman standing; Maximum 25 hours
MIS	201	Introduction to Leadership Dynamics I	Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	202	Introduction to Leadership Dynamics II	Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	205	Leader's Training Course	6-week training program emphasizing practical hands-on skills and leadership development. Taken in lieu of MIS 101, 102, 201, 202. Conducted at Fort Knox, Kentucky.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	4.		
MIS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	301	Advanced Military Science I	Theory and dynamics of the individual soldier and military units in offensive combat operations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	L	
MIS	302	Advanced Military Science II	Theory and dynamics of military units in defensive combat operations. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	L	
MIS	303	National Advanced Leadership Camp	6-week training program emphasizing leadership development and advanced military skills, including tactics, land navigation, and physical training. Conducted at Fort Lewis, Washington.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	4.		
MIS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	401	Advanced Military Science III	Military legal system; preparation and conduct of military training; leadership development; ethics and professionalism of the military officer. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	402	Advanced Military Science IV	Military correspondence; career planning and personal affairs in service; conduct of training; leadership development; ethics and professionalism of the military officer. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.		
MIS	410	American Defense Policy I	Evolution, organization, and execution of U.S. national security policy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	SB & G & H	

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MIS	412	American Defense Policy II	Contemporary problems and analytical issues in the formation and implementation of U.S. national security.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Military Science	3.	SB & G & H	
MIS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Military Science	1-12		
MIS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Military Science	1-6	L	Pre-requisites: Must be an Honors student
MIS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-4		
MIS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Military Science	1-7		
MIS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Military Science	1-3		
MIS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Military Science	0.		
MKT	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-3		
MKT	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		
MKT	300	Marketing and Business Performance	The dynamic role of marketing within society and organizations. Emphasizes frameworks and analytical tools that ensure customer focus and drive organizational performance.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: Non-Marketing W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA; ECN 211 or ECN 212 with a grade of C or better.
MKT	301	Fundamentals of Marketing	Examines the role and process of marketing within the society, economy, and business organization.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Prerequisite(s): School of Global Management and Leadership student with Professional OR Conditional status
MKT	302	Applied Marketing Management and Leadership	Market planning, execution, and assessment. Emphasizes decision and communication skills related to market opportunity analyses and marketing program development as a core business function.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.	L	Pre-requisite: W.P. Carey Marketing BS student; ACC 241 and ECN 221 with C or better
MKT	303	Honors Marketing Theory and Practice	Covers basic applications of marketing concepts to problems that are common to marketing managers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.	L	Pre-requisites: Honors student; ACC 241 or ACC 271, and ECN 221 with C or better; Students may not sign up for MKT 303 who have received a D or better in MKT 300 or MKT 302
MKT	352	Marketing Research	Knowledge and skills to make intelligent decisions in the design, evaluation and application of marketing research and market data. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.	L	Pre-requisite: W. P. Carey Marketing student; MKT 302 or MKT 303 with C or better
MKT	360	Seminar in International Business	Broad exposure to global business and cross-cultural differences. Emphasizes the European Union history and future and the impact of financial issues on marketing practices. Lecture, discussion, group work.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: W. P. Carey BS or BA student OR Non-business student with min 2.5 ASU cum GPA and min 56 earned hours; SCM 300 with C or better
MKT	365	Advertising Management	Advertising as a communications tool in marketing and business. Consideration of market segmentation and positioning, creative strategy, media management, and metrics of effectiveness.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: W.P. Carey BS or BA student OR Non-business student with a minimum 2.5 ASU cum GPA, 2.5 and 56 earned hours; MKT 300 or MKT 302 or MKT 303 with C or better
MKT	370	Professional Sales Skills	Investigate the vital role of sales, its relationship to other functions within the firm, and its impact on customers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	390	Essentials of Marketing	Focuses on the nature and processes of marketing with an emphasis on practical application. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	391	Essentials of Selling	Focuses on the selling process and its practical applications within consumer and business markets. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	393	Essentials of Applied International Marketing	Travel to companies outside the United States to benchmark and assess cross-cultural marketing practices. Not open to business majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: Non-Marketing student; Minimum ASU cumulative GPA of 2.00; Minimum 56 hours OR be a Non-degree seeking student OR be a Graduate student
MKT	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: Non marketing students; Must have a minimum cumulative GPA of 2.00; Must have at least 56 total earned hours or be a non-degree seeking or Graduate student
MKT	395	Essentials of Advertising and Marketing Communication	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: Non-Marketing student; Must have minimum ASU cumulative GPA of 2.00 and at least 56 total earned hours OR be a non-degree seeking student or a Graduate student
MKT	402	Consumer Behavior	Applies behavioral concepts in the analysis of consumer behavior and the use of behavioral analysis in marketing strategy formulation.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3-4		Pre-requisite: W.P. Carey BS or BA student or non-business student; Minimum 2.5 ASU cum GPA; Minimum 56 hours; MKT 352 with C or better

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MKT	410	Sales and Sales Management	Constructive investigation of selling processes, their application in business and consumer contexts, and management of the sales function.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: W.P. Carey BS or BA student OR Non-business student with minimum 2.5 ASU cumulative GPA and 56 earned hours; MKT 302 or MKT 303 with C or better
MKT	413	Marketing Research Concepts and Practice	Research techniques for collecting, analyzing, and interpreting marketing information. Includes design and completion of a client-sponsored, industry-based research project.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		
MKT	414	Global Strategic Marketing	Examines marketing and marketing communication strategy development, and evaluation in the context of global markets and organizational objectives.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	4.		Pre-requisite: Global Mgt Marketing or Int'l Studies student with conditional or professional status; MKT 300, MKT 301 or GLB 301 with C or better
MKT	415	Promotion Management	Market positioning and integration of promotional activities and marketing communications of the firm, including advertising, personal selling, public relations, and sales promotion.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: W.P. Carey BS or BA student OR Non-business student; Minimum 2.5 ASU cumulative GPA; Minimum 56 hours; MKT 302 or MKT 303 with C or better
MKT	420	Retail Management	The role of marketing in retailing and retail performance. Challenges and processes of retail management across various institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisite: W.P. Carey BS or BA student OR Non-business student; Minimum 2.5 ASU cum GPA; Minimum 56 hours; MKT 302 or MKT 303 with C or better
MKT	425	Global Marketing Management	Analyzes marketing strategies and practices developed by firms to compete in global markets and adapt to changing international environments.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with a minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 with C or better
MKT	430	Sports Business	Builds knowledge, skills, and understanding of sports business; exposure to leading-edge thought, methods, and practices in sports business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA; MKT 302 or MKT 303 with grade of C or better
MKT	435	Entrepreneurial Marketing	Identifies and evaluates marketing opportunities; motivates an appreciation of entrepreneurial marketing and its different environmental contexts for general marketing principles.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Prerequisites: W. P. Carey BS or BA student, OR non-business student with minimum 2.5 ASU cum GPA and minimum 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402
MKT	442	Services Marketing Strategy	Concepts, skills, and strategies for addressing the imperative marketing challenges and opportunities involving service.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402
MKT	452	Business-to-Business Marketing Strategy	Concepts, skills, and strategies for performing competitively in the business market where organizations rather than households are the customers.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402
MKT	462	Competitive Marketing Strategy	Strategy formulation and decision making by the marketing executive. Integrates marketing programs and considers competitive marketing issues.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey BS or BA student, or non-business student with min 2.5 ASU cum GPA and min 2.5 ASU business GPA and 56 earned hours; MKT 302 or MKT 303 AND MKT 352 with C or better; Pre/Co-requisite: MKT 402.
MKT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W. P. Carey Marketing BS student; MKT 302 or MKT 303 with B or better
MKT	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Marketing	1-6		
MKT	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Marketing	1-6	L	Pre-requisites: Must be an Honors student
MKT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: W. P. Carey BS or BA student; MKT 302 or MKT 303 with C or better
MKT	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-6		
MKT	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-7		Pre-requisites: Business students with professional status or non-business students with a minimum cumulative GPA of 2.50 and 56 earned hours
MKT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-3		Pre-requisites: Business students with professional status or non-business students with a minimum cumulative GPA of 2.50 and 56 earned hours
MKT	502	Marketing Management	Managing the marketing function; market and environmental analysis; marketing planning, strategy, and control concepts. Development and management of marketing programs.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: Specific W.P. Carey Graduate students only
MKT	510	Understanding Buyer Behavior	Examines behavioral science concepts and theories from the perspective of a marketing researcher who needs knowledge of customer behavior to aid marketing managers as they develop, evaluate, and implement effective marketing strategies for new and existing products.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	513	Marketing Research for Product Development I	Covers qualitative and interpretive methodologies designed to understand and capture the voice of customers with the aim of infusing research results into the new product development process. Covers methods such as ethnographic and observational research, visual documentation, focus groups, in-depth interviews, and artifact analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		

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MKT	514	Marketing Research for Product Development II	Provides theoretical and practical knowledge regarding the market assessment and survey research methods that underlie product development in organizations. Focuses on research techniques particularly applicable to the opportunity identification and concept/project evaluation stages of the new product development process.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better or currently enrolled
MKT	515	Marketing Research for Product Development III	Emphasizes theory and tools useful for refining product development decisions involving narrow product development issues. Covers research techniques that are well suited for fine-tuning new product/service decisions associated with imminent market launch. Covers experimental designs, customer choice modeling, and lab and field test marketing along with appropriate data collection, measurement, and data analysis techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better, or currently enrolled
MKT	524	Services Marketing	Strategies for marketing services emphasizing the distinctive challenges and approaches that make marketing of services different from marketing manufactured goods.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey Graduate students; Must have completed HSA 502 or MKT 502 with a grade of C or greater or be currently enrolled
MKT	530	Creativity and Innovation	Multidisciplinary approaches to theories and practices of inspiring and managing innovation and change for sustainable competitive advantage. Focuses on both the student's individual creativity and the planning and implementation of innovations, technologies, processes, or systems that pose significant uncertainty. Places special attention on the processes surrounding understanding the consumer, ideation and implementation. Inclusive in this are methods such as environmental scanning, scenario planning, contextual research, storytelling, concept testing and prototyping. Also includes the many aspects of the organization's structure and culture regarding innovation and creativity.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	550	Innovative Brand Management and Marketing Communication	Focuses on innovative approaches to brand development and management throughout the product life cycle. Emphasizes marketing communications in a fundamental aspect of this process. The demand for innovative practices is especially evident in many aspects, including new media, social media, technology, open sourcing, and customer co-creation of brands. Addresses the role of customer understanding to market success. Brand management and marketing communication are dominant innovation decision areas within marketing.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		
MKT	560	Customer Relationship Management	Covers approaches for customer relationship management (CRM) including assessing customer value, prospect/customer identification and targeting, assessment and development of customer life-time value, and customer attrition and retention. Covers CRM issues, techniques, and terminology associated with database marketing and data mining for analytical opportunity identification. Students must complete a project using CRM software in order to demonstrate their command of CRM issues, both conceptually and practically.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites:ECN 525 with a grade of D or better, or currently enrolled
MKT	563	Marketing Strategy	Planning and control concepts and methods for developing and evaluating strategic policy from a marketing perspective.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Marketing	3.		Pre-requisites: W.P. Carey Graduate student; MKT 502 with C or better
MKT	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W. P. Carey MBA Full Time student.
MKT	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: Global Management Graduate student; MKT 502 with C or better
MKT	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MKT	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
MKT	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
MKT	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
MKT	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-15		
MKT	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Marketing	1.		
MKT	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Marketing	1-15		
MKT	300	Marketing and Business Performance	The dynamic role of marketing within society and organizations. Emphasizes frameworks and analytical tools that ensure customer focus and drive organizational performance.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisite: Non-Marketing W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA; ECN 211 or ECN 212 with a grade of C or better.
MKT	410	Sales and Sales Management	Constructive investigation of selling processes, their application in business and consumer contexts, and management of the sales function.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisite: W.P. Carey BS or BA student OR Non-business student with minimum 2.5 ASU cumulative GPA and 56 earned hours; MKT 302 or MKT 303 with C or better
MKT	420	Retail Management	The role of marketing in retailing and retail performance. Challenges and processes of retail management across various institutions.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisite: W.P. Carey BS or BA student OR Non-business student; Minimum 2.5 ASU cum GPA; Minimum 56 hours; MKT 302 or MKT 303 with C or better
MLS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-7		
MLS	501	Writing about Social Issues: Culture, Gender, Society, and Well-Being in the Southwest	Reading and discussion of nonfiction writing on social issues that integrate cultural, gender, and societal issues that affect the well-being of urban communities with special attention to the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	502	Religion, Culture, and Health: Where Cultures Intersect	Focuses on how cultural and religious notions may come into conflict around issues of health. Contrasts two societies, not necessarily contemporary, from different continents.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student

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MLS	503	Ethics, Science, and Culture	Introduces ethics related to the practice of art, science, and medical practice in modern and premodern society.	N	LEC	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	504	Film Analysis	Introduce formal and cultural issues important to understanding movies.	N	DIS	N	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	3.		Pre-requisite: Master of Liberal Studies student
MLS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-12		Pre-requisite: Master of Liberal Studies student
MLS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dean, College of Liberal Arts and Sciences	1-4		Pre-requisite: Master of Liberal Studies student
MSE	100	Introduction of Materials Engineering	Engineering design process, concepts about materials, and the materials engineering profession, including teaming, computer models, communication, and societal impact. A basic understanding of high school algebra, computing, and physics are necessary to be successful in this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	2.		Pre-requisites: Undergraduate Engineering or University College student
MSE	111	Challenges in Materials Engineering	Introduces current issues and concepts of materials engineering, relationship between materials properties, application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	1.		
MSE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-3		
MSE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		
MSE	208	Patterns in Nature	Project-oriented science course with computer training to develop critical thinking and technical skills for student-oriented K-12 science lessons. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	4.	SQ	
MSE	211	Introduction to Mechanics of Materials	Topics include stress, strain, elasticity, axial loading, torsion, bending, yield criteria, fracture, general energy methods and Castigliano's Theorem.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: PHY 121; PHY 122; MSE 250 with a C or better
MSE	215	Materials Synthesis	Introduces contemporary techniques for synthesizing both traditional and novel materials and the corresponding correlation to synthesized materials properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre/Co-requisite: MSE 250 with C or better if completed
MSE	250	Structure and Properties of Materials	Basic concepts of material structure and its relation to properties. Application to engineering problems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: CHM 114 or CHM 113; Pre/Co-requisite: CHM 116
MSE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	1-4		
MSE	308	Sensing the World	Project-oriented science course develops critical thinking and technical skill using Internet modules on the five senses.	N	LEL	N	OPT	Ira A. Fulton Engineering	Materials Program	4.	SQ	Pre-requisite: MSE 208
MSE	315	Mathematical and Computer Methods in Materials	Mathematical, computational, and statistical methods and computer programming used to model materials science phenomena and materials engineering applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	CS	Pre-requisites: Engineering BS/BSE students OR Non-Engineering students with a minimum GPA of 3.00; MAT 275 (or MAT 274) with C or better; MSE 250 with C or better
MSE	330	Thermodynamics of Materials	Principles of statistical mechanics, statistical thermodynamics of single crystals, solutions, phase equilibrium, free energy of reactions, free electron theory, and thermodynamics of defects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student OR Non-Engineering student with minimum GPA of 3.00; MSE 250 or ECE 350 completed with D or better or currently enrolled in MSE 250
MSE	335	Materials Kinetics and Processing	Introduces kinetics in processing of materials as illustrated through real-world materials processing examples.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: MSE 330 completed with D or better or currently enrolled; Engineering BS/BSE students
MSE	355	Materials Structure and Microstructure	Elements of the structure of metals and alloys, measurement of mechanical properties, and optical metallography. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with a C or better,OR Graduate Engineering student
MSE	356	Materials Structure and Microstructure Lab	Lab experiments correlating atomic structure, defects and microstructure of processed metals, ceramics polymers and composites to their mechanical and thermal properties. fee	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre/Co-requisite: MSE 355
MSE	358	Introduction to Electronic, Magnetic, and Optical Properties	Introduces electrical, optical, and magnetic properties of solids and microstructure effects as examined through materials-based examples.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: MSE 315 completed with D or better or currently enrolled; Engineering BS/BSE students
MSE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		
MSE	420	Physical Metallurgy	Crystal structure and defects. Phase diagrams, metallography, solidification and casting, deformation, and annealing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 355 completed with D or better OR Graduate Engineering student. Credit for MSE 420 or MSE 514 only.
MSE	421	Physical Metallurgy Laboratory	Focuses on analysis of microstructure of metals and alloys and includes correlation with mechanical properties to some extent. fee	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre/Co-requisite: MSE 420

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MSE	431	Materials Electrochemistry and Corrosion	Introduces terms, the structure of electrified interface and review of thermodynamics of chemical reactions, Faraday's Law, electrochemical thermodynamics; metal/ion potentials, redox potentials, hydrogen and oxygen electrode, Pourbaix diagrams, electrical double layer, electrocapillarity, Lippmann equation, electrochemical kinetics, theory of overvoltage, kinetics of corrosion, mixed potential theory, polarization curves, passivation of metals, pitting, fuel cells, electrodeposition.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 330 completed with D or better
MSE	440	Mechanical Properties of Solids	Effects of environmental and microstructural variables of mechanical properties, including plastic deformation, fatigue, creep, brittle fracture, and internal friction. Credit is allowed for only MSE 440 or 516.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 355 completed with a D or better or currently enrolled in MSE 355
MSE	441	Analysis of Material Failures	Identifies types of failures. Analytical techniques. Fractography, SEM, nondestructive inspection, and metallography. Mechanical and electronic components. Credit is allowed for only MSE 441 or 512.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with a C or better or ECE 350 with D or better
MSE	450	Introduction to Materials Characterization	Introduces materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES. fee	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; PHY 131; MSE 355; Students who have credit for MSE 510, may not enroll in MSE 450
MSE	451	Introduction to Materials Characterization Lab	Lab for materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES. Fee.	N	LAB	N	GNA	Ira A. Fulton Engineering	Materials Program	1.		Pre-requisites: Engineering BS/BSE student; Co-requisite: MSE 450
MSE	470	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with D or better or currently enrolled; CEE 213, MAE 213 or MSE 211 with D or better or currently enrolled; MAT 343, MAT 242 or MAT 342 with D or better or currently enrolled
MSE	471	Introduction to Ceramics	Principles of structure and property relations in ceramic materials. Processing techniques. Applications in mechanical, electronic, and superconducting systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 355 with D or better
MSE	475	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE students; MSE 250 with C or better; May not enroll in MSE 475 if received credit for MSE 518
MSE	476	Growth and Processing of Semiconductors	Briefly introduces semiconducting materials and emphasizes the characteristics of defects in semiconductors and their influence on electronic properties. Covers principles of growth of bulk crystals, epitaxial growth, oxidation, diffusion, ion implantation, and metallization. Discusses the introduction of defects during growth and processing of semiconductors and their influence on device behavior. Credit is allowed for only MSE 476 or 519.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Engineering BS/BSE student; MSE 250 with C or better. May not enroll in MSE 476, if received credit for MSE 519
MSE	482	Materials Engineering Design	Principles of the design process. Feasibility and optimization. Manufacturing processes, materials selection, failure analysis, and economics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	L	Pre-requisites: Engineering BS/BSE student; MSE 420 with a D or better or currently enrolled; Pre- or Co-requisites: MSE 470 and MSE 471 (with D or better if completed) OR Graduate Engineering students
MSE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	490	Capstone Design Project	For small groups in fundamental or applied aspects of engineering materials; emphasizes experimental problems and design. Fee.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.	L	Pre-requisite: Engineering BS/BSE student; MSE 482
MSE	492	Honors Directed Study		N	LEC	N	Z1	Ira A. Fulton Engineering	Materials Program	1-6		Pre-requisites: Honors students only
MSE	493	Honors Thesis		N	LEC	N	Z1	Ira A. Fulton Engineering	Materials Program	1-6	L	Pre-requisites: Honors students only
MSE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		Pre-requisite: Engineering BS/BSE student
MSE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-7		Pre-requisite: Engineering BS/BSE or Engineering Graduate student
MSE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Ira A. Fulton Engineering	Materials Program	1-3		
MSE	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	510	Introduction to Materials Characterization	Introduces materials characterization techniques for analysis of thin films and bulk materials by TEM, SEM, XRD, XPS, and AES.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering student; Credit is allowed for only MSE 450 or 510
MSE	511	Corrosion and Corrosion Control	Introduces corrosion mechanisms and methods of preventing corrosion. Topics include: electrochemistry, polarization, corrosion rates, oxidation, coatings, and cathodic protection.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MSE	512	Analysis of Material Failures	Identifies types of failures. Analytical techniques. Fractography, SEM, nondestructive inspection, and metallography. Mechanical and electronic components. Credit is allowed for only MSE 512 or 441.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	513	Polymers and Composites	Relationship among chemistry, structure, and properties of engineering polymers. Design, properties, and behavior of fiber composite systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	514	Physical Metallurgy	Crystal structure and defects. Phase diagrams, metallography, solidification and casting, and deformation and annealing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering student; Credit is allowed for only MSE 420 or 514
MSE	515	Thermodynamics of Materials	Principles of statistical mechanics, statistical thermodynamics of single crystals, solutions, phase equilibrium, free energy of reactions, free electron theory, and thermodynamics of defects.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	516	Mechanical Properties of Solids	Effects of environmental and microstructural variables of mechanical properties, including plastic deformation, fatigue, creep, brittle fracture, and internal friction. Credit is allowed for only MSE 516 or 440.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	517	Introduction to Ceramics	Principles of structure, property relations in ceramic materials. Processing techniques. Applications in mechanical, electronic, and superconducting systems.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	518	Fundamentals of Microelectronics Packaging	Multidisciplinary foundation course in addressing electrical, thermal, materials, chemical, manufacturing, and reliability problems in packaging.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Fulton Engineering Graduate students. If you have credit in CHE 518, EEE 518, or MSE 475 you may not enroll in MSE 518
MSE	519	Growth and Processing of Semiconductors	Briefly introduces semiconducting materials and emphasizes the characteristics of defects in semiconductors and their influence on electronic properties. Covers principles of growth of bulk crystals, epitaxial growth, oxidation, diffusion, ion implantation, and metallization. Discusses the introduction of defects during growth and processing of semiconductors and their influence on device behavior. Credit is allowed for only MSE 519 or 476.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	520	Theory of Crystalline Solids	Anisotropic properties of crystals; tensor treatment of elastic, magnetic, electric and thermal properties, and crystallography of Martensitic transformations.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	521	Defects in Crystalline Solids	Introduces the geometry, interaction, and equilibrium between dislocations and point defects. Discusses relations between defects and properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	523	Structural and Mechanical Properties of Materials	Designed for first-year PhD students in the School of Materials. Topics include crystallography theory, tensor properties of materials, elasticity, crystal defects, dislocation theory, plasticity, fracture, fatigue, and creep.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	524	Advanced Thermodynamics	Equilibrium thermodynamics. Chemical reactions, phase equilibria, and stability in multicomponent systems. Aqueous solutions and electrochemistry. Introduces statistical thermodynamics.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Credit is allowed for only CHM 541 or MSE 524
MSE	525	Physics of Materials	Teaches fundamental concepts of applied physics as related to the solid state. Wave-particle duality and the Schrodinger equation; chemical cohesion, bonds and energy bands in metals and insulators; optical, electronic, and magnetic properties. Requires a basic knowledge of differential equations; linear algebra; and electrical, magnetic, and optical properties of materials. A course in modern physics is highly recommended, but not required.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	526	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 511 or 481.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	527	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisites: Students who have credit for PHY 482, PHY 512, or NAN 512, may not enroll in MSE 527
MSE	540	Fracture, Fatigue, and Creep	Relationship between microstructure and fracture; fatigue and creep properties of materials. Environmental effects and recent developments. Current theories and experimental results.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	550	Advanced Materials Characterization	Analytical instrumentation for characterization of materials; SEM, SIMS, Auger, analytical TEM, and other advanced research techniques.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Pre-requisite: Graduate Engineering OR Science and Engineering of Materials student
MSE	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		Credit is allowed for only MSE, NAN, PHY or SEM 552

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MSE	553	Electron Microscopy Laboratory I	Lab support for MSE 552.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	1-3		Prerequisite(s): degree- or nondegree-seeking graduate. Corequisite(s): MSE 552 (or PHY 552). Credit is allowed for only MSE 553 or PHY 553
MSE	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent-beam diffraction, and electron holography. Novel developments and applications.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	555	Electron Microscopy Laboratory II	Lab support for MSE 554.	N	LAB	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	561	Phase Transformations, Kinetics, and Diffusion in Solids	Hetero/homogeneous diffusion-controlled transformations, order-disorder transformations, and shear martensitic) athermal transformations in solids. Courses in advanced thermodynamics and structure and properties of materials are strongly recommended in preparation for this course.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	562	Ion Implantation	Includes defect production and annealing. Generalized treatment, including ion implantation, neutron irradiation damage, and the interaction of other incident beams.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	565	Structural Materials in Nuclear Power Systems	Provides an overview of reactor systems and discusses the structural materials used in reactor components (e.g., fuel/core, wall/blanket, heat exchanger, and steam turbine materials). Discusses design considerations and materials degradation processes that occur in service. Emphasizes the effect of radiation damage on materials properties. Reviews reactor systems, including fission- (e.g., PWR, LWR, BWR, LMFBR) and fusion-based reactors.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	570	Polymer Structure and Properties	Relationships between structure and properties of synthetic polymers, including glass transition, molecular relaxations, crystalline state viscoelasticity, morphological characterization, and processing.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	571	Ceramics	Includes ceramic processing, casting, molding, firing, sintering, crystal defects, and mechanical, electronic, and physical properties.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	573	Magnetic Materials	Emphasizes ferromagnetic and ferrimagnetic phenomena. Domains, magnetic anisotropy, and magnetstriction. Study of commercial magnetic materials.	N	LEC	N	OPT	Ira A. Fulton Engineering	Materials Program	3.		
MSE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		Pre-requisite: Materials & Science Engineering Masters student
MSE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Materials Program	1.		
MSE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-4		Pre-requisite: Graduate Engineering student OR Science & Engr of Materials student
MSE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Materials Program	1-12		Pre-requisite: Materials & Science Engineering Masters student
MSE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		

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MSE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Ira A. Fulton Engineering	Materials Program	1-12		
MSE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Ira A. Fulton Engineering	Materials Program	1-15		Pre-requisite: Materials Science & Engineering PhD student
MSE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Ira A. Fulton Engineering	Materials Program	1.		
MSE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Ira A. Fulton Engineering	Materials Program	1-15		Pre-requisite: Materials Science & Engineering PhD student
MSI	601	Contemporary Topics in Music Research	Required for all PhD in Music students. Content includes readings and discussions of topics drawn from the arts and other disciplines that impact and interact with music, music practices, and music research. Requires literature review or research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Doctoral Music students
MSI	602	Current Issues in Music Research	Required for all PhD in Music students. Content includes readings and discussions of topics drawn from current public policies, events, and popular culture that impact and interact with music, music practices, and music research. Requires literature review or research paper.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Doctoral Music students
MSI	755	Historical Research in Music	Required for all PhD in Music students. Knowledge and insights related to conducting historical research in music. Includes development of a mini-proposal for a dissertation on the history of music education, or draft of a historical research paper suitable for presentation or publication.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Doctoral Music students
MTC	123	Beginning Composition	Intended for freshmen and sophomores in the composition concentration. Introduces composing. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Must be a music student in the music composition (FAMUSTCBM) plan
MTC	125	Basic Music Theory	Notation, scales, keys, modes, intervals, chords, basic part writing and composition. Development of related aural skills through sightsinging and dictation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student
MTC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MTC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	221	Music Theory: 18th Century	Styles, techniques, and idioms of 18th-century music; emphasis on analysis, composition (part writing), and related aural skills, with applications for performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 125 with C or better
MTC	222	Music Theory: 19th Century	Styles, techniques, and idioms of 19th-century music; emphasis on analysis, composition (part writing), and related aural skills, with applications for performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 221 with C or better
MTC	223	Music Theory: 20th Century	Styles, techniques, and idioms of 20th-century music; emphasizes innovative treatments of musical elements, analysis, and composition; related aural skills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; MTC 222 with C or better
MTC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MTC	315	Modern Arranging	Techniques in arranging for the contemporary jazz, radio, television, and studio orchestra.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a Music student; MTC 223 with C or better
MTC	316	Modern Arranging	Continuation of MTC 315.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Prerequisite: Bachelor of Music student; MTC 315 with C or better
MTC	320	Modal Counterpoint	Counterpoint based on 16th-century vocal polyphonic style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled
MTC	321	Tonal Counterpoint	Counterpoint based on 18th-century polyphonic style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a Music student; must have completed MTC221 with a C or greater or be currently enrolled

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MTC	323	Composition	Writing music compositions, with emphasis on basic techniques and smaller structures. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisite: Bachelor of Music student
MTC	327	Intermediate form and Analysis	Organizing elements in the most important contrapuntal and homophonic musical forms from the Renaissance through the 19th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC222 with a C or greater or be currently enrolled
MTC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	422	Musical Acoustics	Properties of sound and tone. Harmonic series, instruments, the ear, auditorium acoustics, and the reproduction of sound. Assumes a thorough knowledge of musical notation, intervals, scales, and harmony, or 2 years of music theory.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student; Passed audition
MTC	425	Studies in 20th-Century Theory	Continued development of analytical techniques and aural skill, with an examination of theoretical systems applicable to 20th-century music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC223 with a C or greater or be currently enrolled
MTC	428	Advanced form and Analysis	Organizing principles of the large forms of musical composition in the 19th and 20th centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a Music student; must have completed MTC223 with a C or greater or be currently enrolled
MTC	429	Canon and Fugue	Writing of canons and fugues in tonal style.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MTC 321 with C or better
MTC	430	20th-Century Counterpoint	Counterpoint studies utilizing 20th-century idioms.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MTC 223 with C or better
MTC	433	Orchestration	Studies scoring music for full and chamber orchestras; examines individual orchestral instruments (characteristics and performance techniques).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music student
MTC	436	Electronic Studio Techniques I	Principles of analog electronic music systems and their application in the composition of electronic music. Assumes a thorough knowledge of music notation and intervals.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	437	Electronic Studio Techniques II	Principles of digital electronic music systems and their applications in the composition of electronic music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	440	Jazz Theory and Ear Training	Advanced study of jazz harmonic systems. Daily oral drills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MTC	441	Jazz Composition	Creative writing in the smaller forms and in the idiom of jazz.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisites: Must be a Music student; must have completed MTC 321 AND MUP 236 with a C or greater or be currently enrolled
MTC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MTC	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MTC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MTC	495	Final Project	Half recital of compositions or approval of a large-scale composition or a research paper.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Music	0.		
MTC	496	Theory Project	Supervised individual writing project dealing with music theory.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MTC	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MTC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MTC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MTC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	516	Baroque Music	Detailed analysis of selected examples of music from the Baroque period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	517	Classic Music	Detailed analysis of selected examples of music from the Classic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	518	Romantic Music	Detailed analysis of selected examples of music from the Romantic period.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	519	Late 19th-Early 20th Century Music	Detailed analysis of selected examples of music from the late 19th and early 20th centuries.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	520	Analytical Techniques	Analytical techniques systematically applied to music. Concentration on structural and compositional procedures.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	523	Advanced Composition	Advanced music composition, including complex techniques and larger structure. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-3		Pre-requisite: Graduate Music student
MTC	525	Pedagogy of Theory	Practices and principles of teaching music theory. Emphasizes most desirable and practical offerings possible. Comparative studies of existing practices.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	527	History of Music Theory	Theory from Pythagoras to the 16th century. Need not be taken in sequence with MTC 528.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	528	History of Music Theory	Theory from the 17th century to the present. Need not be taken in sequence with MTC 527.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

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MTC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisite: Graduate Music student
MTC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisite: Graduate Music student
MTC	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MTC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	723	Advanced Composition	Special problems in writing in complex forms and textures.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Graduate Music student
MTC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MTC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MTC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed MAT 113, 114, 117, 119, 142, 170, 210, 270 or 271 with a grade of D or greater or be currently enrolled.
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: Must have completed MTE 180 with a grade of D or greater or be currently enrolled
MTE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Pre-requisite: Freshman standing; Maximum 25 earned hours
MTE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MTE	380	Arithmetic in the Elementary School	Historical numeration systems, overview of elementary number theory, including primes, factorization, divisibility, bases, modular systems, linear congruence, and continued fractions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	381	Geometry in the Elementary School	Informal geometry, including concepts of length, area, volume, similarity, and congruence. Classification of figures, straightedge and compass constructions, and motion geometry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in mathematics education. Requires weekly reflective reading and writing. May be repeated for credit. Fee.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	C	
MTE	482	Methods of Teaching Mathematics in Secondary School	Examines secondary school curricular material and analyzes instructional devices. Teaching strategies, evaluative techniques, diagnosis, and remediation and problem solving. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	483	Mathematics in the Secondary School	Topics in geometry, number theory, algebra, and analysis. Emphasizes unifying principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
MTE	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
MTE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
MTE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
MTE	585	Modern Geometry for Teachers	Euclidean, projective, and non-Euclidean geometries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	587	Analysis for Teachers	Subject matter in mathematics appropriate for accelerated programs in secondary schools, including analytic geometry and calculus.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
MTE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		

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MTE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MTE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
MTE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
MTE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MTE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
MTE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
MTE	588	Analysis for Teachers		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		
MTE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
MTE	180	Mathematics for Elementary Teachers I	Numbers, number systems, operations on numbers; patterns, algebraic reasoning, and functions; problem solving. For prospective elementary education and special education teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	181	Mathematics for Elementary Teachers II	Data analysis, probability, and discrete mathematics; geometry and measurement; structure and logic. For prospective elementary education and special education teachers. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
MTE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MTE	482	Methods of Teaching Mathematics in Secondary School	Examines secondary school curricular material and analyzes instructional devices. Teaching strategies, evaluative techniques, diagnosis, and remediation and problem solving. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
MTE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
MU	502	Hist Musical Style		N	LEC	N	CNV	Herberger College of the Arts	School of Music	2.		
MUD	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
MUD	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
MUD	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

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MUD	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
MUD	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
MUD	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
MUE	110	Introduction to Music Education	Overview of music education. Orientation to student characteristics, teacher roles, and foundations of philosophy and history. Requires school observations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student
MUE	161	Introduction to Music Therapy	Overview of the profession of music therapy and its applications in mental health, rehabilitation, and special education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MUE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	211	Music in Recreation	Materials, methods, and organizational structures appropriate for recreational music.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	261	Music Therapy as a Behavioral Science	Orientation to preclinical experience with emphasis on observation skills, assessment, goal setting, and professional ethics. Requires off-campus observations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student; MUE161 with C or better
MUE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUE	310	Music in Early Childhood Education	Identifying and understanding musical needs of young children. Methods and materials for program development for classroom teachers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	311	Music for Classroom Teacher	Development of the classroom music program in the elementary school. No previous music experience or course work required.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	313	Elementary Music Methods	Methods of instruction, planning, and presentation of appropriate contents in music. For music educators and music therapists.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisite: Music student
MUE	315	General Music in Secondary Schools	Curriculum, student characteristics, and teaching strategies for general music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisite: Music student
MUE	317	Educational Methods for Violin and Viola	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	318	Educational Methods for Cello and String Bass	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	327	Educational Methods for Trumpet and Horn	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	328	Educational Methods for Trombone, Euphonium, and Tuba	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	335	Educational Methods for Guitar	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	336	Educational Methods for Percussion	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Education student
MUE	337	Educational Methods for Flute, Clarinet, and Saxophone	Teaching and playing skills for music teachers. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	338	Educational Methods for Double Reed Instruments	Teaching and playing skills for music teachers. 3 hours per week.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	381	Music Therapy Research	Statistics and research design appropriate for investigations in music therapy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	L	Pre-requisite: Music Therapy student
MUE	384	Therapy Preclinical I	Paired students provide music therapy for small groups at a community agency for mentally retarded, geriatric, or physically disabled clients for a minimum of 10 clock hours.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	385	Therapy Preclinical II	Individual placement in ASU Music Therapy Clinic.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	386	Therapy Preclinical III	See MUE 385.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	387	Therapy Preclinical IV	Individual clinical work in a community mental health facility.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	388	Therapy Preclinical V	See MUE 387.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUE	389	Repertoire for Music Therapy	Music skills repertoire for music therapy, including units on brass, strings, woodwinds, electronic instruments, computer music, and improvisation techniques.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Prerequisite: Must be a Music Therapy student; must have completed MUE211 with a C or greater or be currently enrolled
MUE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisite: Music Therapy student
MUE	436	Percussion Methods for Music Therapy	Provides knowledge and practical performance skills on percussion instruments, further improving the effectiveness of the student in the practice of music therapy. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Therapy student

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MUE	441	Psychology of Music	Psychological and physiological aspects of music emphasizing musical behavior, function, perception, and learning.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	463	Music Therapy Techniques	Organization, administration, and use of music in rehabilitation with various client populations.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music Therapy student; MUE 467 with C or better
MUE	467	Music Therapy Theory and Practice in Psychopathology	Influence of music on behavior; principles and practices of music therapy and psychiatric clients.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisite: Music Therapy student; MUE 261 with C or better; MUE 211 with C or better
MUE	475	Group Process and Music Therapy	Principles of group process, verbal counseling, professional writing, as related to music therapy practice.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-3		Prerequisites: Must be a Music Therapy student; must have completed MUE362 with a C or greater or be currently enrolled
MUE	476	Internship in Music Therapy	Full-time, 6-month, off-campus residency in an approved clinical institution.	N	PRA	N	Z1	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music Therapy student; MUE 211 with C or better
MUE	480	Choral Methods	Methods of instruction, organization, and presentation of appropriate content in choral music classes.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	481	Instrumental Practicum/Methods	Instrumental music as a means of developing music skills, understandings, and attitudes in elementary and secondary school students.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	482	Instrumental Practicum/Methods	See MUE 481.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	485	String Practicum/Methods	For students preparing to administer a string program and teach strings at the elementary level.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	4.		
MUE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MUE	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MUE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MUE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MUE	501	Introduction to Professional Music Therapy	Introduces the profession of music therapy through lecture, active discussion, and observations of clinical sessions. Experiential learning is achieved through music making in peer groups. Prerequisite: graduate student in Music Therapy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Must be a graduate student in Music Therapy
MUE	548	Introduction to Research in Music Education	Survey of research methods and literature in music education. Focuses on interpretation and evaluation.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	549	Foundations of Music Education	A treatment of historical perspectives, philosophy-aesthetics identified with music education, and learning theories applied to music teaching/learning. Basic research and writing skills appropriate to graduate studies in music education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	550	Studies in Music Curricula	Scope and sequence of musical experiences. Develops criteria for the evaluation of music curricula.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	551	Advanced Studies in Elementary School Music	For experienced teachers; organization and content of K-6 general music classes. Emphasizes teaching music reading and ear training to young children.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	552	Advanced Studies in Secondary General Music	Organization and content of school music classes that are not performance oriented.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	560	Jazz Pedagogy	Study of pedagogy, repertoire, and technique of instruction in jazz styles, ensemble techniques, and performance practice for school ensembles.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	562	Jazz Rehearsal Techniques	Conducting and rehearsal techniques for school jazz ensembles.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	564	Instrumental Music, Advanced Rehearsal Techniques	In-depth analysis of instrumental techniques in preparation for a thorough discussion of band tuning problems and solutions. Discussion of productive conducting and rehearsal techniques for school music teachers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	566	Instrumental Literature and Pedagogy for Schools	Provides an in-depth examination of ensemble music and teaching techniques to instrumental music teachers.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	567	Professional Practicum I	Students provide music therapy for small groups at a community agency providing services to people who are intellectually disabled, physically disabled, and the elderly.	N	PRA	N	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Must be a graduate Music Therapy student
MUE	568	Choral Music, Advanced Rehearsal Techniques	Musical and vocal techniques necessary for presentation of choral literature. Analysis and experimentation with psychological, acoustical, and other problems of rehearsal and performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	569	Professional Practicum II	Continuation of MUE 567. Practicum.	N	PRA	N	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music Education Graduate student; MUE 567 with C or better

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MUE	570	Choral Literature for Schools	Comprehensive study and analysis of choral music for the high school with special emphasis on octavo literature.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	571	Music Therapy Seminar I: Supervision and Administration	Covers health care administrative skills pertinent to music therapy practice, including budgeting, resource allocation, and staff supervision.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUE	572	Music Therapy Seminar II with Lab: Advanced Practice in Music	Deepens and broadens knowledge and skills in music therapy clinical practice.	N	LEL	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	573	Music Therapy Seminar III with Lab: Music Therapy Theory and Philosophy	Explores current theory in music therapy and develops the theoretical basis for the profession.	N	LAB	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Music Therapy MM student
MUE	574	Music Therapy Music Skills I: Improvisation	Teaches new forms of musical improvisation pertinent to music therapy practice, broadening and deepening existing skills.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Therapy MM student
MUE	575	Music Therapy Music Skills II: Accompaniment	Teaches new forms of musical accompaniment pertinent to music therapy practice, broadening and deepening existing skills.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music Therapy MM student
MUE	579	Psychology of Music	Nature of musicality and its evaluation. Review of recent research.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	585	Vocal Acoustics and Production	In-depth approach to the psychological/physiological workings of the vocal mechanism.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUE	586	Music Therapy Graduate Clinical Project	Develops clinical- and research-based music therapy skills in selected cognate area.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisites:Completed MUE 571, 572, 574, and 575, or currently enrolled.
MUE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUE	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	754	Teacher Education Research and Policy	Reading and discussion of research and policy documents in teacher education with a focus on arts and music teacher preparation. Includes development of a research project or essay suitable for publication or presentation, an abbreviated prospectus for a dissertation, or literature review.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Doctoral Student in Music Education
MUE	755	Historical Research in Music Education	Knowledge and insights related to conducting historical research in music education. Includes development of a mini-proposal for a dissertation on the history of music education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		

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MUE	756	Qualitative Research in Music Teaching and Learning	Studies qualitative research and methods in music education, including readings and discussion, data collection and data analysis. Includes development of an abbreviated prospectus for a qualitative dissertation, or a draft of a qualitative research paper suitable for presentation or publication. Prerequisite: doctoral student in music education.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Doctoral Student in Music Education
MUE	757	Quantitative Research in Music Teaching and Learning	Studies quantitative research and methods in music education, including readings and discussion, data collection, and analysis. Includes development of an abbreviated prospectus for a quantitative dissertation or a draft of a quantitative research paper suitable for presentation or publication.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		Pre-requisites: Doctoral Student in Music Education
MUE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	N	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUP	100	Concert Attendance	6 semesters required for all music majors. A total of 4 convocations and 6 approved recitals required each semester.	N	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	0.		
MUP	111	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	117	Applied Jazz Improvisation	Principles, methods, and theory of jazz performance and pedagogy. May be repeated for credit.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	121	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May not be taken for audit.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	127	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May be repeated for credit. May not be taken for audit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	4.		Pre-requisites: Music students who have passed audition
MUP	131	Class Piano	4-semester sequence (with MUP 132, 231, and 232) designed for those with little or no piano experience. Emphasizes keyboard technique, sight reading, simple accompaniments, and improvisation. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	132	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Prerequisites: Must be a Music Therapy student; must have completed MUP131 with a C or greater or be currently enrolled
MUP	133	Class Voice	4-semester sequence (with MUP 134, 233, and 234) open to all students. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	134	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	141	Jazz Fundamentals	Principles, methods, and theory of jazz performance and pedagogy.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		Pre-requisites: Music students who have passed audition

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MUP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUP	209	Beginning Choral Conducting	Essentials of choral conducting techniques. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	210	Beginning Instrumental Conducting	Essentials of instrumental conducting techniques. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	217	Applied Jazz Improvisation	Emphasizes basic jazz literature, chord symbol reading, melodic patterns and concepts, ear training, analysis of improvised solos, and pedagogical issues.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: MUP 117 with C or better
MUP	231	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student; MUP132 with C or better
MUP	232	Class Piano	See MUP 131.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student; MUP231 with C or better
MUP	233	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	234	Class Voice	See MUP 133.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	235	Jazz Piano	2-semester sequence (with MUP 236) designed for jazz keyboard experience. Emphasizes chord symbol reading, simple improvisation, and voicing. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student
MUP	236	Jazz Piano	See MUP 235.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	237	Fretboard Harmony	Scales, chords, harmony, basic improvisation for the guitar. 2 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	250	Diction for Singers	Use of phonetics in the study of song and opera literature. Language emphasis differs each semester. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music students who have passed audition
MUP	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	301	Advanced Class Piano	Required for the choral-general concentration of the Music Education major. Open to other music majors who have completed MUP 232. Emphasizes accompaniments, ensemble playing, score reading, advanced harmonizations, repertoire, technique, and improvisation. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music student; MUP 232 with C or better
MUP	302	Advanced Class Piano	Required for the choral-general concentration of the Music Education major. Open to other music majors who have completed MUP 301. A sequential continuation of MUP 301 skills that include both group and studio instruction. 2 hours per week. May not be taken for audit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisite: Music student; MUP301 with C or better
MUP	311	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	317	Applied Jazz Improvisation	Emphasizes listening, analysis, and performance of advanced jazz literature and composition in contemporary styles. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	319	Recording Studio Techniques	Study of both analog and digital recording methods. Includes lab time on recording console and tape machines.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	321	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	327	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		Pre-requisites: Music students who have passed audition
MUP	337	Studio Instruction: Collaborative Piano	Repertoire to be selected from vocal and instrumental literature. 1 hour lesson per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	339	Choral Conducting	Elements of choral conducting technique and interpretation. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	340	Instrumental Conducting	Fundamentals of score reading and interpretation of instrumental music. 3 hours per week.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	344	Chamber Orchestra	Important masterpieces from all periods of music are performed throughout the year.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	345	Symphony Orchestra	Over a 4-year period, the student is introduced to the masterpieces of symphony orchestra literature. 3 times per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	346	Sinfonietta	Symphonic orchestra that presents approximately six concerts annually, performing masterpieces of the classical repertoire. 3 times per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	350	Choral Union	Open to all students in the university and to interested singers in the community by audition. Preparation and performance of the larger choral works. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		

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MUP	352	Chamber Singers	Important masterpieces from all periods of music are performed. May be repeated for credit.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	353	Symphonic Chorale	4 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	355	Men's Chorus	Rehearsal and performance of music for mixed voices. 3 hours per week.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	357	Women's Chorus	2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	361	Marching and Concert Bands	Staging of formations and drills for football games and other events (fall); masterpieces of symphonic band literature (spring). Meets daily.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	362	Wind Ensemble	Rehearsal and performance of literature for wind ensemble. 2 hours per week in fall, 4 hours in spring. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	363	Chamber Winds	Rehearsal and performance of advanced literature for chamber winds. 2 hours per week. Performing ensemble. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	370	Music Theatre: Techniques	Exercises and improvisations for the singer/actor emphasizing body awareness, basic music theater performance skills, and freedom of the vocal and breath mechanisms. Section 1 (Movement for Singers); Section 2 (Expression); Section 3 (Interpretation); Section 4 (Advanced Expression); Section 5 (Advanced Interpretation). Sections 2 through 5 must be taken in sequence. Each section: 3 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	371	Music Theatre: Workshops	Development of specific skills for musical-dramatic interpretation. Section 1 (Aria Preparation); Section 2 (Broadway I); Section 3 (Broadway II).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	372	Music Theatre: Orchestras	Participation in Lyric Opera Theatre productions. Section 1 (Orchestra); Section 2 (Chamber Orchestra); Section 3 (Chamber Ensemble). May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	373	Music Theatre: Performance	Participation in Lyric Opera Theatre productions. Section 1 (Principal Roles); Section 2 (Chorus). May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	374	Music Theatre: Production	Participation in Lyric Opera Theatre productions. Section 1 (Vocal Performance); Section 2 (Technical Music Theatre); Section 3 (Problems in Production) to be taken concurrently with MUP 373, Section 2.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	376	New Music Ensemble	Rehearsal and performance of music written in the last 20 years.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	377	Brass Choir	Specializing in public performance of music written for brass instruments. 2 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	379	Chamber Music Ensembles	Brass, guitar, keyboard, mixed, percussion, string, vocal, and woodwind ensembles. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	385	Percussion Ensemble	Rehearsal and performance of standard and original repertoire for the percussion ensemble and related instruments. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	386	Jazz Band	Rehearsal and performance of new, traditional, and Latin literature for jazz bands. 4 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	387	Ethnomusicology Ensembles	Performance learning experience for the music of various cultures of the world.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	388	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUP	440	Keyboard Harmony	Performance-oriented class emphasizing chord progressions, harmonization, figured bass realization, stylistic improvisation, transposition, open score reading, and sight reading.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	451	Repertoire	Literature available for performance in all performing media.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	453	Song Literature	Early Italian, English, German, and French art song.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	454	Song Literature	American, Russian, Spanish, Scandinavian, and contemporary song.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	481	Performance Pedagogy and Materials	Principles and methods of performance techniques for each performance field. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	482	Piano Pedagogy	Continuation of MUP 481 (Piano). Problems and techniques of teaching intermediate to advanced piano students.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	2.		Pre-requisites: Music students who have passed audition
MUP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		Pre-requisites: Music students who have passed audition
MUP	487	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week. May not be taken for audit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		Pre-requisites: Music students who have passed audition
MUP	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Music students who have passed audition
MUP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		Pre-requisites: Music students who have passed audition
MUP	495	Performance	For candidates of a BM degree in which 1/2 recital is a requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	0.		Pre-requisites: Music students who have passed audition

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUP	496	Performance	For candidates of a BM degree in which a full recital is a requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	0.		Pre-requisites: Music students who have passed audition
MUP	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		Pre-requisites: Music students who have passed audition
MUP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		Pre-requisites: Music students who have passed audition
MUP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	STO	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		Pre-requisites: Music students who have passed audition
MUP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	507	Group Piano Practicum	Curricula, materials, and teaching techniques for group teaching at the university and community college levels. Observation/supervised teaching in group piano.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	508	Studio Observation	Weekly observation of studio teaching by various piano faculty. Paper as final requirement.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	509	Jazz Keyboard Harmony	Emphasizes jazz chords and chord progressions, harmonization, voicing, and analysis of transcriptions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	510	Jazz Keyboard Harmony	Continuation of MUP 509.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	511	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour plus studio class weekly. May not be taken for audit. Fee.	Y	STO	Y	GNA	Herberger Inst Design & Arts	School of Music	2.		
MUP	517	Advanced Improvisation	Improvisation techniques within the context of advanced jazz literature. Must be taken in sequence with MUP 518.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	518	Advanced Improvisation	Continuation of MUP 517.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	521	Studio Instruction	Secondary or minor instrument instruction. Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1/2 hour per week. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	527	Studio Instruction	Bassoon, cello, clarinet, contrabass, cornet, euphonium, flute, guitar, harp, harpsichord, horn, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, voice. Minimum contact of 1 hour per week. May be repeated for credit. May not be taken for audit. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
MUP	540	Advanced Conducting	Score preparation and conducting techniques for instrumental music. Concentration on study of historical styles. Required of DMA students in Instrumental Music.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	541	The Art Song	Seminar on solo song from its beginning to the present day.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	544	Chamber Orchestra	Important masterpieces from all periods of music are performed throughout the year. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	545	Symphony Orchestra	Masterpieces of symphony orchestra literature. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	546	Sinfonietta	Symphonic orchestra that presents approximately six concerts annually, performing masterpieces of the classical repertoire. 3 times per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	550	Choral Union	Open to all students in the university and to interested singers in the community by audition. Preparation and performance of the larger choral works. 2 hours per week. An audition is required to participate in the ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	551	Repertoire	Literature available for performance in all performing media. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	552	Chamber Singers	Important masterpieces from all periods of music are performed. May be repeated for credit for a total of 8 hours.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	553	Symphonic Chorale	4 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	555	Men's Chorus	Rehearsal and performance of music for mixed voices. 3 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	557	Women's Chorus	2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	561	Marching and Concert Bands	Staging of formations and drills for football games and other events (fall); masterpieces of symphonic band literature (spring). Meets MWF. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	562	Wind Ensemble	Rehearsal and performance of literature for wind ensemble. 4 hours per week. May be repeated for credit. Performing ensembl	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		

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MUP	563	Chamber Winds	Rehearsal and performance of advanced literature for chamber winds. 4 hours per week. May be repeated for credit. Performing ensemble.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	570	Music Theatre: Techniques	Exercises and improvisations for the singing actor emphasizing body awareness, isolations, and freedom of the vocal and breath mechanisms. Section 1 (Interpretation); Section 2 (Expression); Section 3 (Movement for Singers). Each Section: 3 hours per week.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	571	Music Theatre: Workshops	Development of specific skills for the musical-dramatic interpretation. Section 1 (Role Preparation); Section 2 (Styles); Section 3 (Opera Scenes); Section 4 (Musical Comedy); Section 5 (Revue Ensembles).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	572	Music Theatre: Orchestras	Participation in Lyric Opera Theatre productions. Section 1 (Orchestra); Section 2 (Chamber Orchestra); Section 3 (Chamber Ensemble). May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	573	Music Theatre: Performance	Participation in Lyric Opera Theatre productions. Section 1 (Principal Roles); Section 2 (Chorus).	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	574	Music Theatre: Production	Participation in Lyric Opera Theatre productions. Section 1 (Vocal Performance); Section 2 (Technical Music Theatre); Section 3 (Problems in Production) to be taken concurrently with MUP 573, Section 2.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	576	New Music Ensemble	Rehearsal and performance of music written in the last 20 years. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	579	Chamber Music Ensembles	String, brass, woodwind, percussion, keyboard, vocal, and mixed ensembles. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	581	Performance Pedagogy and Materials	Principles and methods of performance techniques for each performance field. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2.		Credit is allowed for only MUP 481 or MUP 581
MUP	585	Percussion Ensemble	Rehearsal and performance of standard and original repertoire for the percussion ensemble and related instruments. 2 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	586	Jazz Band	Rehearsal and performance of new, traditional, and Latin literature for jazz bands. 4 hours per week. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	587	Ethnomusicology Ensembles	Performance learning experience for the music of various cultures of the world. May be repeated for credit.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	588	Collaborative Piano	Piano accompaniments found in vocal and instrumental literature; discussion of styles and performance practices; experience in public performance. 2 hours per week. May be repeated for credit.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	596	Solo Performance	May be full recital, major operatic role, solo performance with orchestra, ensemble, or lecture recital.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	597	Solo Performance	See MUP 596.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1.		
MUP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUP	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	671	Choral Repertoire	Examines large choral/orchestral works to determine their musical and textual characteristics from a conductor's point of view.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUP	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	727	Studio Instruction	Minimum contact of 1 hour per week. May be repeated for credit. Conducting students register for 2 semester hours; all other students register for 4 semester hours. Fee.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Music	2-4		
MUP	751	Seminar in Piano Literature	In-depth study of selected topics related to the standard piano literature. Requires research paper, bibliography, class presentation.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Music	2.		
MUP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Music	1.		
MUP	796	Solo Performance	May be repeated for credit.	N	RSC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUS	340	Survey of Music History	Major periods, composers, and compositions in the history of music.	N	LEC	N	OPT	Herberger College of the Arts	School of Music	3.	HU & H	
MUS	100	Fundamentals of Music Notation	Provides nonmusic majors with sufficient symbol literacy to begin work in the field of musical learning. Credit not applicable toward any music degree.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.		
MUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-3		
MUS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	298	Honors Directed Study		N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUS	347	Jazz in America	Current practices employed by contemporary jazz musicians; the historical development of jazz techniques. Credit does not apply to major requirements for music degrees.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C	

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MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	355	Survey of American Music	Growth and development of American music.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	
MUS	356	Survey of Musical Theatre	Music's place in Broadway musicals, viewed in terms of historical importance, cultural identity, and relative function. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU	
MUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	410	History of Women in Music	Surveys musical achievements of women as well as the historical contexts that shaped and defined their artistic development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Music	3.	HU & C & H	
MUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6		
MUS	493	Honors Thesis		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Music	1-6	L	Pre-requisites: Must be an Honors student
MUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	497	Honors Colloquium		Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-6		
MUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-7		
MUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-3		
MUS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-4		
MUS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-12		
MUS	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		

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MUS	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-12		
MUS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Music	1-12		
MUS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Music	1-15		
MUS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Music	1-15		
MUS	340-W	Listening to Music	Major periods, composers, and compositions in the history of music.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	349	Music in America	Current styles of American music including jazz, popular, and folk music.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
MUS	354	Popular Music	Emphasizes historical, cultural, and performance patterns in a variety of popular idioms such as, but not limited to, rock, folk, jazz, and Afro-American music.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	356	Survey of Musical Theatre	Music's place in Broadway musicals, viewed in terms of historical importance, cultural identity, and relative function. Fee (hybrid/Internet).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
MUS	357	Aesthetic Perception in Music Performance	2 hours per week. May be repeated for credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
MUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
MUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
MUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
MUS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
MUS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
MUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
NAN	505	Nanoscience and Society	Integrates nanoscience and nanotechnology with potential societal issues involved in the students' NAN 593 Applied Projects. Coordinated by the faculty and research staff at the Center for Nanotechnology in Society.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
NAN	506	Innovation and IP Management	Intellectual Property (IP) Management in the context of innovation (research, regulations, manufacture, access to markets, and trade) with emphasis on strategies, public-private interface, licensing, and technology transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		
NAN	511	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311; PHY 315; Credit is allowed for only MSE 526, NAN 511, PHY 511, or PHY 481
NAN	512	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only MSE 527, NAN 512, PHY 482 or PHY 512
NAN	527	Electroanalytical Chemistry	Theoretical and practical considerations for modern electroanalytical chemistry, including voltammetry, potentiometry, and microelectrode analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.		Pre-requisites: CHM 346 with C or better. Credit is allowed for only CHM 527 or NAN 527
NAN	542	Topics in Biophysics	Overview of modern biology, length scales: emphasizes molecular and cellular biology. Nonequilibrium systems: compare and contrast stochastic processes in biological and physical systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only MSE 552, NAN 552, PHY552 or SEM 552
NAN	564	Bionanotechnology	The use of biomolecules, bioelectronics, and biomedicine for applications in nanotechnology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
NAN	571	Quantum Physics	Review modern physics, chemistry, math. Differential equation, operator, matrix formulations. Free particle, bound state problems. Examples across physics and astronomy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only NAN 571 or PHY 571
NAN	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
NAN	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
NAN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
NLM	160	Voluntary Action and Community Leadership	Introduction to voluntary behavior in American society for students interested in volunteerism, community service, and civic engagement.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
NLM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	210	Community Services and Professions	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: Nonprofit Leadership and Mngmnt student with NLM 160 (or NLM 191) with C or better if completed OR Recreation (nonprofit emphasis) student with REC 120 with C or better if completed
NLM	220	Introduction to Nonprofit Organizations	Introduces the nonprofit sector and its role in developing the cultural, economic, and social impact in U.S. society.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		

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NLM	300	Fund Raising and Resource Development	Theory and practice of philanthropy, resource acquisition methods through ethical fund raising, and earned income approaches for nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: NLM 160 (or NLM 191) with C or better if completed
NLM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-or Co-requisite: NLM 160 (or NLM 191) with C or better if completed
NLM	310	Volunteer Management	Administration of volunteer service programs. Studies and analyzes the volunteer personnel process.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	320	Professional Development Seminar	Professional seminar featuring nonprofit executives; variable topics on leadership and management concerns. Forum for exchange between students and professionals.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1.		
NLM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: NLM 410, PRM 304, REC 330 or TDM 372 with C or better. Students who have credit for TDM 402 or PRM 402, may not enroll in NLM 402
NLM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites: Nonprofit Leadership & Mgmt, or Recreation(Mgt) students. Received a C or better in NLM 410 or currently enrolled
NLM	410	Social Entrepreneurship	Introduces social entrepreneurship, including how ideas are formulated, constructed, and implemented; experiential learning in developing a social enterprise plan. Credit is allowed for only NLM 410 or 562.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites:MAT 142 or higher;NLM or Recreation Management (nonprofit emphasis) major;2.50 ASU GPA;45 minimum hours;grade of C or better in ENG 102, NLM 210, & 220. Students who have credit for NLM 562, may not enroll in NLM 410
NLM	420	American Humanics Institute	National Management Institute for preparation of nonprofit professionals. Requires out-of-state conference.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-2		
NLM	430	Managing Nonprofit Organizations	Analyzes administrative structures, decision making, and program delivery within nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must be Academic Level Senior or higher; Earned grade of C or better in NLM 220 or REC 220 or currently enrolled.
NLM	435	Service Learning for Community Development	Applies youth and adult development theories through community service immersion in collaboration with local nonprofit partners.	N	DIS	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Pre-requisites: Earned grade of C or better in NLM 402, 430, PRM 401, 402 or TDM 401, 402 in; Earned grade of C or better in TDM403, NLM403 or PRM403 or have completed REC 350 or REC 440 with C or better. Academic level senior
NLM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
NLM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
NLM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
NLM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
NLM	501	Program Evaluation and Information Management	Develops skills in several areas, including evaluation, needs assessment, information and data collection, data management and analysis, computer applications, and report writing.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

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NLM	510	Foundations of Nonprofit Management	Explores the history and role of the nonprofit sector in American society; contemporary issues and delivery systems. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	520	Financial Management in Nonprofit Organizations	Reviews funding structures utilized by nonprofit organizations; financial tools used by managers; fund raising practices and tools. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	540	Volunteer and Human Resources in Nonprofit Organizations	Managing the volunteer and paid staff human resources in nonprofit organizations; practices and theories. Lecture, case study.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	550	Philanthropy: Theory and Practice	Provides overview of selected fundraising topics and insight into both the theory and practice of this area.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	560	Leadership and Ethics in the Nonprofit Sector	Examines leadership and ethical questions encountered by managers and leaders in the nonprofit organizations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	562	Social Entrepreneurship	Introduces social entrepreneurship, including how ideas are formulated, constructed, and implemented; experiential learning in developing a social enterprise plan. Credit is allowed for only NLM 562 or 410.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Credit is allowed for only NLM 410 or 562
NLM	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	584	Internship		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
NLM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
NLM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
NLM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
NLM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-12		
NLM	610	Executive Leadership and Governance	Examines the multiplicity of roles for executives and board of directors in providing strategic leadership for nonprofits.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
NLM	620	Critical Issues Facing Nonprofits	Improves understanding of trends emerging within nonprofits such as leadership, resource development, and social responsibility.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Prerequisite: Master of Nonprofit Studies major
NTR	100	Introductory Nutrition	Basic concepts of human nutrition. Recent controversies in nutrition and how food choices affect personal health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	142	Applied Food Principles	Applied scientific principles of food preparation and production.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nutrition (Food/Nutrtn Mngt), Nutrition (Human Nutrition), Nutrition (Dietetics), or Nutrition (Nutrition Comm) student
NTR	150	Introduction to the Professions in Nutrition and Dietetics	Introduces the professions of nutrition and dietetics; their history, practice, and future; credentials, ethics, and standards of practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
NTR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	241	Human Nutrition	Principles of human nutrition. Emphasizes nutrient metabolism and the relationships between diet and disease.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: CHM 101 or CHM 113 with D or better

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NTR	300	Computer Applications in Nutrition	Introduces nutrition and food software, including dietary assessment and analysis, food inventory and control, and telecommunications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	CS	Pre-requisites: NTR 100 or 241
NTR	320	History of Human Nutrition	Origins of human nutrition; evolving theories of nutrition and disease; historical role of nutrition in social, military, cultural events.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NTR 100 or 241
NTR	340	Applications in Human Nutrition	Applies nutrient metabolism through case studies and product evaluations; special topics in human nutrition.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: BIO 201; NTR 241
NTR	341	Introduction to Planning Therapeutic Diets	Cultural, health, and economic aspects of planning therapeutic diets. Assessments of food and diet composition. Reviews common therapeutic diets. Credit is allowed for only NTR 341 or 345. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	343	Food Service Purchasing	Introduces purchasing systems, bid processes, receiving and storage procedures, and regulatory agencies involved in the food service industry.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 142 with D or better
NTR	344	Nutrition Services Management	Organization, administration, and management of food and nutrition services in hospitals and other institutions.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: FON 100, FON 241, NTR 100 or NTR 241
NTR	345	Development of Healthy Cuisines	Principles and applications of nutrition and medical nutrition therapy; development of healthy cuisines in health and disease states. Credit is allowed for only NTR 345 or 341.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or less than in NTR 341 or completed FON 100 or FON 241 with D or better or NTR 100 or NTR 241 with D or better or currently enrolled
NTR	346	Sports Nutrition	Nutritional needs of recreational and elite athletes; energy balance; nutrient metabolism during activity; fluid-electrolyte regulation; evaluation of ergogenic supplements.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or better in FON 241 or NTR 241 or be currently enrolled AND earned D or better or currently enrolled in BIO 202
NTR	348	Cultural Aspects of Food	Origins, development, and diversity of food preferences and dietary habits; food patterns and attitudes of global populations and U.S. immigrants.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB & C & G	Pre-requisites: NTR 100 or 241
NTR	350	Nutrition Counseling	Counseling techniques in nutrition; interpersonal and communication skills in clinical and community sites; nutrition education for individuals and populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisites: NTR 341 with C or better or NTR 345
NTR	351	Nutrition and Health Communications	Approaches of nutrition and health communications; development of nutrition and health communication materials for selected target audiences.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NTR 100 or 241
NTR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	400	Preprofessional Preparation in Dietetics	Applies academic knowledge in field practicum; aspects of professional development.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have completed NTR 440, NTR 441, or NTR 444 with D or better or be currently enrolled AND earned D or better in NTR 341 or be currently enrolled.
NTR	401	Professional Practice in Food Service Management	Applies academic knowledge in food service management to field practicum; develops practical skills in planning, purchasing, production, management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned D or better in NTR 343 or NTR 445 or be currently enrolled
NTR	440	Advanced Human Nutrition I	Metabolic reactions and interrelationships of vitamins, minerals, and water.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: BIO 202 with C or better; NTR 241 with C or better; NTR 340 with C or better; Credit is allowed for only NTR 440 or 540
NTR	441	Advanced Human Nutrition II	Metabolic reactions and interrelationships of carbohydrate, lipid, and protein.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: You may not enroll in NTR 441, if you have credit for NTR 541; BIO 202 with D or better; BCH 361 with C or better; NTR 241 with D or better
NTR	442	Experimental Foods	Food product development techniques, food evaluation and testing, and investigation of current research into food composition. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: Earned D or better in NTR 142 or FON 142 or currently enrolled in NTR 142 AND earned D or better in CHM 231 or CHM 331 or currently enrolled.
NTR	444	Medical Nutrition Therapy	Principles of medical nutrition therapy for prevention and treatment of disease and promotion of health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 341 or FON 341 with C or better OR enrolled in NTR 341; BIO 202; Credit is allowed for only NTR 444 or 544
NTR	445	Management of Food Service Systems	Standardized methods of quantity food preparation, operation of institutional equipment, institutional menu planning, quantity food experiences. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 100 or NTR 241 with D or better; NTR 142 with D or better; Students who have credit for NTR 545, may not enroll in NTR 445
NTR	446	Human Nutrition Assessment Lecture/Laboratory	Clinical and biochemical evaluation of nutritional status. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must have earned C or better in BCH 361 and earned C or better in NTR 440 or NTR 441; Students who have credit for NTR 446, may not enroll in NTR 546
NTR	448	Community Nutrition	Food-related behaviors; organization and delivery of nutrition services; program design, implementation, and evaluation strategies; nutrition assessment of populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisite: NTR 100 or NTR 241; Credit is allowed for only NTR 448 or 548
NTR	450	Nutrition in the Life Cycle I	Emphasizes nutritional needs and problems during pregnancy, lactation, infancy, and childhood.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	SB	Pre-requisite: NTR 100 or NTR 241; Credit is allowed for only NTR 450 or 550
NTR	451	Nutrition in the Life Cycle II	Nutritional needs and problems of adults, particularly the elderly.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: NTR 100 or 241
NTR	492	Honors Directed Study		N	THE	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NTR	493	Honors Thesis		N	THE	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
NTR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
NTR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	501	Research Methods in Nutrition II	Reviews survey, focus group, and epidemiologic research; develops questionnaires; analyzes large data sets.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	521	Nutrition and Immunology	Critical review of current research on nutrient metabolism, immune function.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	523	Vegetarian Nutrition	Health benefits, nutritional characteristics, potential risks of vegetarian diets.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	525	Complementary Nutrition	Critical review of functional foods, phytochemicals, nutrient supplements in health promotion.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	527	Energy Balance and Weight Management	Reviews energy regulation, eating disorders, obesity, weight control methodologies.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	529	Pediatric Nutrition	Critical review of pediatric disease states and current nutritional therapies.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	535	Nutrigenomics	Provides a sound foundation for promoting personalized nutrition by integrating and applying molecular nutrition and nutritional biochemistry to clinical settings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisite: BCH 361; BCH 367; NTR 440 or 441
NTR	537	Evidenced-Based Nutrition	Reviews current evidence of the role of diet on disease prevention, development, and management.	N	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	540	Advanced Micronutrient Metabolism	Metabolism of vitamins and minerals, primarily as applied to humans, with research literature emphasized.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 440 or 540
NTR	541	Advanced Macronutrient Metabolism	Metabolism of protein, fat, and carbohydrate, primarily as applied to humans, with research literature emphasized.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 441 or 541
NTR	544	Therapeutic Nutrition	Current theories of the nutritional prevention or treatment of various diseases.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 444 or 544
NTR	545	Management of Institutional Food Service Systems	Standardizes methods of quantity food preparation, operation of institutional equipment, institutional menu planning, quantity food experiences. May require field trips. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 445 or 545
NTR	546	Assessment Techniques in Nutrition	Clinical and biochemical evaluation of nutritional status. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 446 or 546
NTR	548	Nutrition Program Development	Planning, development, implementation, and evaluation of community nutrition programs, including the process of grant applications.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Credit is allowed for only NTR 448 or 548
NTR	550	Advanced Maternal and Child Nutrition	In-depth review of metabolic characteristics and nutritional needs of the pregnant woman, lactating woman, infant, and child.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NTR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		
NTR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
NTR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NTR	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
NTR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
NUR	310	Nursing Concepts	Theoretical concepts related to health integrity focusing on the individual client across the life span. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Nursing undergraduate student; Co-requisites: NUR 311, NUR 394: Psychomotor Skills for Professional Nursing Practice and NUR 320 (or NUR 484: Introduction to Nursing Practice I)
NUR	311	Pharmacology	Applications of pharmacologic interventions.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing student; Co-requisites: NUR 310, NUR 394: Psychomotor Skills for Professional Nursing Practice and NUR 320 (or NUR 484: Introduction to Nursing Practice I)
NUR	314	Health Assessment for Registered Nurses	Introductory knowledge and skills for systematic physical, psychosocial, and developmental nursing assessment over the life span.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	315	Methods and Critical Appraisal for Evidence-Based Practice	Scientific and clinical inquiry, research methodology, and critical appraisal in the synthesis of research findings for application in evidence-based nursing practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: NUR 310, NUR 311, NUR 394: Psychomotor Skills for Prof Nursing Practice) and NUR 330 with C or better; NUR 320 (or NUR 484: Intro to Nursing Practice I) with Y
NUR	320	Nursing Practice	Integrates knowledge and attitudes from theory into the nursing care of adults in a variety of health care settings. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Enrollment in upper division nursing program; Co-requisites: NUR 310, NUR 311 and NUR 394: Psychomotor Skills for Professional Nursing Practice
NUR	323	Nursing Practice Adult Health	Applies nursing process with selected alterations in health with focus on adult populations in the acute care setting. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Enrollment in upper division nursing program; NUR 310, 311, 394:Psychomotor Skills for Prof Nurs Pract with C or better; NUR 320 (or 484: Intro to Nurs Pract I) with grade of Y; Co-requisites: NUR 313 or 394:Nursing Concepts Adult Health
NUR	330	Professional Nurse Attributes	Professional nursing roles and responsibilities.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: Upper Division Nursing Program students
NUR	342	Theory II: Health Integrity and Alterations	Concepts related to selected alterations in health integrity with focus on individuals, families, and groups. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate Nursing student, NUR 381 with C or better
NUR	364	Professional Development II: Nursing Research for RNs	Introduces concepts and issues in nursing research. Emphasizes quantitative and qualitative research processes, examination of nursing research literature.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: Undergraduate nursing student.
NUR	391	Registered Nurse Mobility I: Professional Development	Historical, philosophical, and theoretical bases for professional nursing practice. Enhancement of critical inquiry skills through exploration of selected issues.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisties: Must be in Nursing
NUR	392	Registered Nurse Mobility II: Health and Wellness	Concepts of health integrity and community-based practice and professional nursing roles.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisties: Must be in Nursing
NUR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Upper Division Nursing Program students
NUR	413	Nursing for Complex Care	Advanced theoretical knowledge and interprofessional collaborative care required for the delivery of safe and competent care of the adult client experiencing acute and complex alterations in health. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Undergraduate nursing student; NUR 481 with C or better
NUR	423	Nursing Practice: Complex Care and Leadership and Management	Applies advanced psychomotor skills, leadership and management principles, and interprofessional collaboration for clients experiencing health alterations across the lifespan in multiple health settings. Fee.	N	LAB	N	P/F	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate nursing student.
NUR	430	Professional Nurse Attributes: Leadership and Management	Applications of theories and concepts of organizations, management, and leadership with focus on nursing management and leadership in healthcare organizations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Undergraduate nursing student.
NUR	431	Professional Nurse Attributes Innovative Professional	Focuses on the process of transition to the professional nursing role, and the gathering, interpretation, and evaluation of evidence that serves as a basis for improving client outcomes and professional satisfaction.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	L	Pre-requisites: Undergraduate nursing student; NUR 481 with C or better
NUR	440	Theory III: Health Integrity and Alterations for RNs	Concepts related to health integrity and alterations with focus on individuals, families, groups, aggregates, and communities.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	6.		Pre-requisites: Undergraduate nursing student; must have completed NUR 392 with a grade of C or greater.
NUR	441	Theory III: Health Integrity and Alterations	Concepts related to health integrity and alterations with focus on individuals, families, groups, aggregates, and communities. Fee.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	6.		Pre-requisites: Undergraduate nursing student.
NUR	444	Theory IV: Health Integrity and Alterations for RNs	Advanced concepts related to health integrity and alterations in that integrity, with focus on selected client populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NUR 315, NUR 391, TWC 361 with C or better
NUR	445	Theory V: Leadership and Management for RNs	Selected theories and concepts of organizations, management, leadership with focus on selected client populations for experienced RNs.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be an undergraduate nursing student.
NUR	460	Professional Development III: the Art of Nursing for RNs	Explores the aesthetic, ethical, and personal patterns of knowing in nursing for the practicing RN.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: Must be an undergraduate nursing student.
NUR	461	Professional Development III: the Art of Nursing	Explores the aesthetic, ethical, and personal patterns of knowing in nursing.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.	HU	Pre-requisites: Upper Division Nursing Program students
NUR	464	Professional Development IV for RNs	Capstone professional development course for the RN student.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		Pre-requisites: Must be an undergraduate nursing student.

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NUR	481	Nursing Practice III	Lab, clinical experiences. Fee.	N	LAB	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	7.		Pre-requisites: NUR 313 (394:Nurs Conc for Adult Health), 314 (394:Nurs Conc for Psych/Mental Health), 315, 323 (484:NP Adult Health), 324 (484:NP Psych/Mental Health); Co-requisites: NUR 411 or NUR 498: Nurs Conc for Childbearing & Pediatric Clients
NUR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Upper Division Nursing Program students
NUR	492	Honors Directed Study		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NUR	493	Honors Thesis		N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6	L	Pre-requisites: Must be an Honors student
NUR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Upper Division Nursing Program students
NUR	495	Community Health/Home Health Practice for RNs	Theoretical content related to community and home healthcare. Clinical practice with individual, family aggregates.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	496	Leadership and Management Practice for RNs	Capstone leadership and management experience for the RN student that utilizes patterns of knowing in nursing practice. fee	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	5.		Pre-requisites: Undergraduate nursing student.
NUR	497	Honors Colloquium		Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-6		
NUR	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-7		Pre-requisites: Upper Division Nursing Program students
NUR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-3		
NUR	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Graduate Nursing student; NUR 551 with B or better
NUR	503	Adult Acute: Advanced Theory I	Focuses on theoretical, research, and advanced assessment skills required for advanced practice across the acute care continuum.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Must be a MS nursing, AHN or non-degree nursing student; AND must have completed NUR 503 and 564 with a grade of B or better or be currently enrolled.
NUR	508	Advanced Nursing Practicum I: Adult Acute Nursing	Required practicum for preparation for advanced practice across the acute care continuum. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-6		Pre-requisites: Must co-enroll in NUR 503
NUR	513	Advanced Practice Nursing Role III	Third of three courses that focus on the examination and implementation of the advanced practice nurse role, emphasizing its major components and subcomponents.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Graduate Nursing student; NUR 512 with B or better
NUR	521	Psychiatric/Mental Health Nursing: Advanced Mental Health Assessment	Theories related to holistic health assessment for the promotion of physical/psychological health; develops skill in mental health assessments.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing student
NUR	526	Advanced Neonatal Physical Assessment	Develops assessment skills related to neonate/infant, including history-taking, physical, developmental, behavioral, cultural, and genetics assessment to provide comprehensive advanced practice neonatal nursing care. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites: Nursing MS student or Non-degree seeking Graduate student; Co-requisite: NUR 525
NUR	527	Neonatal and Pediatric Pharmacology in Nursing Practice	Examines and discusses the rationale, action, and therapeutic effect for using each class of medications employed in neonatal and pediatric healthcare.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Be in:NUNURDTMS or NUPCNDTMS, or NUGRNONDGR; & completed NUR 525 w/ a grade of B or greater(or enrolled) or co-enrolled, & completed NUR 526 or NUR 558 w/a grade= B or greater or be enrolled in either, or co-enrolled
NUR	528	Advanced Developmental and Family-Centered Nursing Care	Provides the foundation for providing advanced nursing care of children that is developmentally supportive, family centered, and culturally competent. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		Pre-requisites:Be in:NUNURDTMS or NUPCNDTMS, or NUGRNONDGR; & completed NUR 525 w/ a grade of B or greater(or enrolled) or co-enrolled, & completed NUR 526 or NUR 558 w/a grade= B or greater or be enrolled in either, or co-enrolled
NUR	538	Understanding & Applying Prin of Evidence-Based Care in Advanced Practice	Understanding how application of evidence-based practice principles assist advanced practice nurses and other healthcare professionals to provide best care.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	539	Generating Internal Evidence and Validating Application of Evidence through Outcomes Management	Assists advanced practice clinicians to provide best care through generating and validating application of evidence using outcomes management.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	540	Teaching Evidence-Based Practice	Focuses on strategies that have been demonstrated as effective methods for teaching evidence-based practice in academic and clinical settings.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2.		
NUR	541	Application of Principles of Mentorship for Change toward Evidence-Based Practice	Assists advance practice nurses and other healthcare professionals to facilitate change toward evidence-based practice through mentorship.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	543	Disseminating Evidence to Advance Best Practice in Healthcare and Health Policy	Focuses on disseminating evidence to advance best practice with an emphasis on advancing EBP in health policy and the media.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	558	Advanced Pediatric Health Assessment	Expansion of basic health assessment skills and development of clinical problem-solving skills for advanced practice nurses. Includes assessments of infants, children, and adolescents. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS,or NUPCNDTMS,or NUGRNONDGR; & received a B or > in NUR 551,500,552,554., or co-enrolled.
NUR	559	Advanced Health Assessment	Expansion of basic health assessment skills and development of clinical problem-solving skills for advanced practice nurses. Includes assessments of infants, children, adolescents, and adults. fee	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites:Must be in NUNURDTMS,or NUPCNDTMS,or NUGRNONDGR; & received a B or > in NUR 551,500,552,554, or be currently enrolled, or co-enrolled.

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NUR	578	Gestalt Therapy I	Introduces theory and methodology of Gestalt therapy and its uses for mental health promotion and restoration.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	579	Gestalt Therapy II	Focuses on further development of Gestalt therapy and its application in working with various client populations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: NUR 578 with B or better
NUR	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	SEM	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing student
NUR	581	Advanced Nursing Practicum I: Community Health Nursing	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Must be in Nursing MS or Nursing (Comm Health Adv Prac) ; AND co-enrolled in CHP 501 and completed NUR 500 with a grade of B or greater,.
NUR	582	Advanced Human Physiology	Analyzes major theories and concepts of human physiology. Explores interrelationship of physiology and health.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	2-3		Pre-requisites: MS Nursing, AHN or non-degree Nursing student; NUR 500, 552 and 554 with B or better
NUR	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Must be in Nursing MS or Nursing (Comm Health Adv Prac); NUR 500, 551, 552 and CHP 502 with B or better; NUR 581 or 587 with B or better; Co-requisite: NUR 510
NUR	587	Advanced Nursing Practicum II: Community Health Nursing	Clinical application of theories, concepts, and principles in area of concentration.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing MS or Nursing (Comm Health Adv Prac); NUR 581 with B or better; Co-requisite: CHP 502
NUR	589	Research Utilization	Emphasizes the synthesis and application of research to an identified clinical nursing problem. Must be repeated for credit.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-2		
NUR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		Pre-requisites: Nursing Graduate student
NUR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-4		Pre-requisites: Nursing Graduate student
NUR	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	601	Professional Role Development in Nursing and Healthcare Innovation	Explores professional identity in nursing education, health policy, and research and how one's identity can influence individual, family, and community engagement in healthcare.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing & Healthcare Innovation PhD student
NUR	603	Social and Contextual Issues in Nursing and Healthcare	Analyzes nursing practice and the healthcare system for an identified population using social-ecological approaches.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	604	Philosophy of Science Perspectives in Nursing and Healthcare Innovation	Analyzes the history and philosophy of science as a basis for knowledge and academic scholarship in nursing and healthcare innovation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	605	Theories Related to Nursing and Healthcare Innovation	Examines theoretical perspectives and approaches guiding research in nursing and healthcare innovation across the lifespan. Includes the historical evaluation, social contextual factors, implicit assumptions, and bias that influence nursing and healthcare innovation knowledge generation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	608	Qualitative Research Design and Methods	Explores and critiques selected qualitative research approaches. Includes fieldwork exercises as an integral part of course expectations.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	609	Quantitative Research Design and Methods	Examines multiple research approaches in clinical and health policy research from a quantitative perspective.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	610	EBP: Critical Appraisal/Synthesis-Evidence	Knowledge and skills in critical appraisal and synthesis of evidence to guide best practice.	N	LEC	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		

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NUR	611	Collaborative Inquiry	Seminar and immersion experience designed to foster student participation in multidisciplinary research teams to address nursing and health problems.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	612	Advanced Analysis of Variance: Design and Analysis of Experiment	Introduces theory, methods, and practice of analysis of variance.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	613	Principles of Regression and Correlation	Introduces theory, methods, and practice of regression analysis.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	614	Design and Implementation of Theory-Based Interventions	Focuses on the knowledge related to advanced methods for intervention research. Examines methodological, ethical, and practical issues in the design and implementation of theory-based intervention studies.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	670	Curriculum Development in Academic and Practice Settings	Includes analyses of historical, philosophical, societal, environmental, cultural, technological, and educational factors of curriculum development in academic and practice settings.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: MS Nursing (Nursing Education) or Graduate Certificate in Nursing Education; Pre/Co-requisite: NUR671 with B or better
NUR	671	Teaching in Academic and Practice Settings	Analyzes theories, issues, and research related to teaching in nursing. Focuses on the process of teaching/learning.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program.
NUR	672	Design and Delivery of Mediated Instruction	Addresses instructional design issues, theory, and practices related to online and electronically mediated learning.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program; NUR 670
NUR	673	Producing and Evaluating Programs for Academic and Practice Settings	Critical examination of standards, regulatory environment, administrative systems, leadership requirements, technological infrastructure, human factors, future trends regarding mediated education planning, production, and evaluation.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student or Certificate program; NUR 670
NUR	679	Biostatistics: Principles of Statistical Inference	Examines principles of statistical inference and their application to the analysis and interpretation of epidemiological, psychosocial, medical, nursing, and healthcare data.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		Pre-requisites: Nursing Graduate student
NUR	681	Advanced Health Assessment of Older Adults Lab/Practicum	Skill-based course focused on advanced health assessment skills specific to older adults, including history-taking strategies, physical, functional, developmental, and psychosocial health assessment.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1.		
NUR	682	Geriatric Health Promotion	Examines theoretical perspectives in aging and cultural and contextual approaches for health promotion in older adults.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	685	Geriatric Practicum I	Diagnosis, management and application of advanced knowledge and skills related to assessment, screening, and health promotion of older adults in a variety of settings.	N	PRA	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	4.		
NUR	686	Management of Common Health Problems in Geriatrics	Provides theoretical foundation for advanced geriatric healthcare focusing on the epidemiology of aging and the effects of senescence on cognition and organ systems. Emphasizes the core concepts of aging, including health management and end of life care. Uses theory building approaches for applying health management process and outcomes to clinical practice and policy.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	688	Management of Complex Diseases and Syndromes in Geriatric Population	Focuses on diagnosis and management of complex diseases and syndromes in the geriatric population.	N	SEM	N	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	3.		
NUR	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		Pre-requisites: Nursing Graduate student
NUR	692	Research		N	RSC	Y	Z1	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Nursing & Health Innovation	College of Nursing & Health Innovation	1-12		
NUR	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Nursing & Health Innovation	College of Nursing & Health Innovation	1-15		
OMT	343	Occupational Safety and Ergonomics	Health and safety movement, accident theories and effects, OSHA standards and liability, safeguarding, hazards, workers' compensation, ergonomics, and safety.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	344	Industrial Organization	Industrial organization concepts. Topics relate to industrial relations, governmental regulations, organizational structure, labor relations, human factors, and current industrial practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	345	Public Sector Management	Management in government and public agencies. Includes mission, planning and organizing to provide services, human resource issues, conflict resolution, coordination.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	401	Statistics for Industry	Two-part online statistics with applications for the practitioner in industry. Includes data description, measures of central tendency and variability, probability, tests of hypotheses, regression analysis and analysis of categorical data.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites:MAT 117 with a grade of D or better, or currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
OMT	402	Legal Issues for Technologists	American legal system and impact on technology management issues: contracts, torts, intellectual property, white collar crime, antitrust, environmental, and employment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Minimum Junior standing
OMT	405	Forecasting and Evolution of Technology	History and evolutionary nature of selected technologies, issues in the management of emerging technologies, and methods of technological forecasting.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisite: Minimum Junior standing
OMT	430	Ethical Issues in Technology	Topics in social responsibility for industrial technology and engineering.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:School of Technology or Coll of Engr & Appl Sci Non-Degree plan or School of Technology BAS, BS, or MS Tech plan
OMT	440	Introduction to International Business	International business principles and operations, including partnerships, trade agreements, currency issues, international sales, and cultural differences between countries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.	G	Prerequisites:Must have received a D or greater in IST346 or MGT301 or OMT440 (or be currently enrolled in IST346 or MGT301 or OMT440) OR you must be in an Engineering & Appl Sci or Sch of Tech Plan: NDegr,BAS,MS,MSTech
OMT	445	Industrial Internship	Work experience assignment in industry commensurate with student's program. Specialized instruction by industry with university supervision. Pass/fail.	N	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-10		Prerequisites: Minimum 2.25 GPA AND Minimum Junior standing AND Technology & Innovation BAS or BS student
OMT	451	Industrial Distribution and Materials Management	Surveys topics in industrial distribution, including, but not limited to, materials handling, purchasing, receiving, warehousing, traffic, inventory control, and shipping.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Engr & Appl Sci or Sch of Tech Plans: Non Degree or BAS or MS or MSTech OR must have received a C or greater in TMC346 OR received a D or greater in IST346 or MGT301 (or becirrently enrolled in TMC346 or IST346 or MGT301
OMT	452	Industrial Human Resource Management	Concepts and practices of human resource management in a global industrial environment.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Engr & Appl Sci or Sch of Tech Plans: Non Degree or BAS or MS or MS Tech
OMT	453	Safety Management	Development and management of safety programs, education and training, and relationships within an organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Must have received a D or greater in ITC343 or ITM343 or OMT343
OMT	455	Industrial Marketing Concepts	Customer and sales strategies for industrial organizations, including current practice and future planning.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites:Academic Level must be equal to or greater than a Junior AND must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346, OR be in a Schl of Tech Grad Plan
OMT	456	Introduction to Organized Labor	Introduces labor relations, unions, federations, collective bargaining, grievances, and labor legislation.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346
OMT	461	Operations Management	Introduces supervisory principles as applied to production of goods and services.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: IMC 346 or IST 346 or MGT 301 or (TMC 346 AND APM 301) or STP 420, OR Engr & Tech & Innov: Non Degree or BAS or MS or MS Tech
OMT	480	Organizational Effectiveness	Human aspects of supervisory behavior in the industrial setting and how they influence efficiency, morale, and organizational practices.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or greater in IMC346 or IST346 or MGT301 or TMC346
OMT	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
OMT	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		Pre-requisites: Minimum Junior standing; Minimum 2.25 GPA
OMT	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		
OMT	502	Financial Management	Examines corporate financial and managerial accounting systems, budgeting, and financial policy, using microcomputers to analyze, forecast, and report information.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	503	Marketing Management	Modern methods and industrial case studies of planning, pricing, promoting, and distributing goods and services in the global marketplace.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	504	Law and Ethics for Technical Professionals	Analyzes legal and ethical framework for making managerial decisions in the corporate environment of engineering- and technology-related industries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	520	Strategic Management of Technology	Analyzes entrepreneurial dynamics and technology development, methods of research and development management, new technology implementation, and start-up organization.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre Requisites: Graduate or Non Degree Students Only
OMT	540	International Management	Practices and procedures for effective management of multinational business organizations, including partnerships, joint ownerships, and global subsidiaries.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	548	Statistical Methods for Research	Multivariate statistical techniques to analyze research data. Uses statistical software and applications.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	549	Research Techniques and Applications	Selection of research problems, analysis of literature, individual investigations, preparing reports, and proposal writing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	550	Industrial Training and Development	Training techniques and learning processes. Planning, developing, evaluating, and managing industrial and governmental programs.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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OMT	552	Global Management Philosophies	Analyzes and compares significant supervision philosophies developed in various industrial nations and their potential application in the United States.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	560	Managerial Decision Making	Analyzes common decision-making biases and techniques to overcome them. Uses both subjective quantitative decision tools and computerized decision aids.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
OMT	570	Advanced Project Management	Planning, organizing, coordinating, and controlling staff and project groups to accomplish the project objective.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: You may not enroll in OMT 570, if you have credit for TMC 470
OMT	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		
OMT	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
OPM	301	Operations Management	Introduces the management of service and manufacturing conversion processes, with emphases on quality management and computer applications.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: Must be a Global Management student with conditional or professional status
OPM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
OPM	502	Management of Operations Technology	Design, control, and improvement of operations technology. Concepts and modeling tools required for strategic decisions in manufacturing and service operations.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		
OPM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
OPM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
PAF	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	300	Public Management and Administration	Examines the context and role of the public manager and the development of the field of public administration.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	340	Public Management and Policy	Develops conceptual, critical, and practical understanding of policy, the policy process, and policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
PAF	401	Statistics	Surveys statistical concepts and techniques with application to public administration. Does not count toward program of study. Satisfies statistics prerequisite requirement for PAF 501 and 502.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	410	Building Leadership Skills	Introduces understanding and developing leadership skills, including an examination of leadership theories and models from multidisciplinary and crosscultural points of view, an assessment of the student's leadership capabilities, and practical applications to improve individual leadership capabilities.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	SB	
PAF	411	Leadership and Change	The leader's role in bringing about significant organizational and societal change with special attention to group and organizational behavior dynamics, establishing a vision, mobilizing and empowering individuals and groups, and assessing outcomes of the change process in a variety of settings.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	SB	
PAF	420	Public Leadership	Examines key concepts, models, and strategies for leading public and nonprofit organizations, emphasizing self-knowledge, skills, and abilities for effective leadership.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	460	Public Service Ethics	Role, values, and issues of public management in democratic governance, citizen participation, power structures, and professional codes of conduct.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	492	Honors Directed Study		Y	LEC	Y	CNV	College of Public Programs	School of Public Affairs	1-3		
PAF	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Public Affairs	1-6	L	Pre-requisites: Must be an Honors student
PAF	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		

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PAF	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-3		
PAF	501	Public Service Research I	Philosophy, scope, and methods; public service research design, values, and ethics.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Must have earned B or better or currently enrolled in PAF 401, POS 401, PSY 230 QBA 221, or SOC 390 AND course must be completed within 4 previous terms
PAF	502	Public Service Research II	Quantitative techniques including multivariate analysis, data analysis, decision making, and computer applications in public affairs.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 501 with C or better
PAF	503	Public Affairs	Development and context of American public administration and policy, role of administration in governance, and values and ethics in administration.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	504	Public Affairs Economics	Basics of public sector economics, microeconomic and macroeconomic concepts applied to public sector decisions and policies.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	505	Public Policy Analysis	Institutional and formal analysis of policy processes, decision making, and problem solving; values, ethics, and the uses of policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 504 with C or better
PAF	506	Public Budgeting and Finance	Legal, social, economic, political, institutional, and ethical foundations of governmental finance, budgets, and budgeting.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 504 completed with C or better or currently enrolled
PAF	507	Public Human Resource Management	Personnel systems, behavior and management of people in public organizations, collective behavior, unionism, conflict management, motivation, productivity, and ethics.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	508	Organization Behavior	Theory and application in the management of organizational behavior with emphasis on leadership and the public service.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	509	Public Affairs Capstone	Capstone application of core course knowledge, skills, and abilities required for public service.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: PAF 501, 502, 503, 504, 505, 506, 507 and 508 with C or better
PAF	520	Public Management	Management process in government and public agencies, with emphasis on the executive leadership within the public sector.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	522	Public Labor Relations	Rise of public unionism, managerial policy toward unionism, conflict resolution; impact of unionism on budgets, personnel policies, and public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	523	The City and County Manager	Manager's role and resources in the differing forms of administrative, legislative, and community sectors.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	525	Public Entrepreneurship	Explores entrepreneurship in the public sector from various angles, including small and large communities and nonprofits.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	529	Organization Change and Development	Explores the nature and management of change and development as a tool to achieve organizational goals; effecting planned change.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	530	Management of Urban Government	Administrative practices and behavior within the urban political administrative environment. Functional areas such as citizen participation, urban planning, urban transportation, and the conflicts between urban politics and administrative efficiency.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	531	Community Conflict Resolution	Interdisciplinary approach to understanding the dynamics of community conflict. Strategic considerations in policy design and advocacy; potential reaction to conflict. Relevant models and research findings generated by both case studies and comparative methods.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	534	Urban Infrastructure	Covers various types of infrastructure operated by local governments and the issues related to management of those various public assets.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	536	Urban Policy Making	Analyzes the opportunities and costs of influencing public policy and the roles of officials and bureaucracies in decision making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	540	Adv Policy Analysis	Emphasizes the structure of policy problems, forecasting policy alternatives, optimizing resources, and reducing uncertainty in policy making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 505 with C or better
PAF	541	Program Evaluation	Various methodologies available for the evaluation of public policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 501 with C or better
PAF	546	Environmental Policy and Management	Analyzes environmental policy and planning issues and principles related to the analysis and management of natural and urban/regional resources.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	547	Science, Technology and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Credit is allowed for only BIO 515, GLG 547, PAF 547 or SOS 516
PAF	548	Women/Politics/Public Policy	Explores how political philosophy, politics, and public policy affect and are affected by women.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	549	Diversity Issues and Public Policy	Examines public policy issues concerning or affecting women, black, Latino, Asian, and American Indian communities, as well as those groups' impact on the policy process.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	551	Computers in Administration	Experience in use of computer technology for public administration problem solving.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		

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PAF	562	Intergovernmental Relations	Evolution, growth, present status, and characteristics of the U.S. federal system of government. Federal-state relations, state-local relations, regionalism, councils of government, interstate cooperation, grants-in-aid, and revenue sharing.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	564	Political Economy	Classical and contemporary literature and historical development of governmental and economic arrangements, with special emphasis on the role of the state.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	570	Urban Economics and Public Finance	Examines microeconomics at the intermediate level, along with topics in urban microeconomics focusing on issues of urban finance and taxation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	571	Geographic Information Systems (GIS) and Analysis	Provides foundational information related to application of GIS technology to meet various needs within governmental operations, administration, and public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	572	Urban Demography	Focuses on basics of demographic analysis, including natality, migration, and mortality. Emphasizes use of demographic analysis for urban problem solving.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	573	Advanced Regression	Examines more advanced regression topics, such as limited dependent variable analysis, time-series analysis and forecasting techniques, and simultaneity.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: PAF 502 with C or better
PAF	574	Diversity, Ethics, and Leading Public Change	Focuses on leadership, ethics, and benefits and tensions of the multicultural city to develop leadership and multicultural competence.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	579	Public Policy Capstone	Integrative, client-based project course.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	L	
PAF	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
PAF	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Public Affairs	1.		
PAF	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		Pre-requisite: Doctoral student
PAF	601	Seminar: Pol Analysis & Eval	Normative and conceptual issues of policy formulation, implementation, and evaluation; methods of policy analysis and evaluation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
PAF	602	Seminar: Foundations of Public Administration	Philosophy of science (including conduct of inquiry--epistemological and ontological foundations), historical development, and theoretical foundations of the field.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Doctoral PAF student
PAF	603	Seminar: Organization and Behavior in the Public Sector	Structure, organization, conduct, and performance of public sector institutions in the administration of public policy.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisite: Doctoral student
PAF	604	Foundations of Public Administration II	Philosophy of science (including research design issues and alternative approaches) and contemporary public administration, including political, social, technological, and economic institutions involved in governance, exposure to research being conducted within department.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: Doctoral PAF student; PAF 602
PAF	610	Advanced Qualitative Methods for Public Affairs Research	Explores a number of qualitative research approaches and methods, including ethnography, ethnomethodology, participant observation, interviews, focus groups, content analysis, discourse analysis, and some comparative/historical methods. Also exploreS the important theoretical and ethical issues that bear on these approaches.	N	SEM	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: PhD student
PAF	620	Public Administration Professional Development Workshop	Prepares doctoral students to become productive and effective public administration scholars, teachers, and researchers.	N	SEM	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: Doctoral PAF student
PAF	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PAF	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-12		
PAF	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-15		
PAF	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Public Affairs	1.		
PAF	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Public Affairs	1-15		
PE	123	Tumbling		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of Kinesiology	0.5		
PGM	100	PGA/PGM Introduction	Introduces the golf professional training program. Career enhancement, rules of golf, tournament operations, and playing professional development programs. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	2.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	110	Player Development I	Introductory instruction on golf game improvement to assist PGM students in preparation for Players Ability Test. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	111	Player Development II	Instruction to assist PGM students in preparation for Players Ability Test with emphasis on full swing mechanics and practice plan development. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		Pre-requisites: Pre-Agribus (Prof Golf Mngt) or an Agribusiness (Prof Golf Mngt) student
PGM	112	Player Development III	Emphasizes classroom and hands-on applications of full swing analysis and short game strategies. Special focus on golf course management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		
PGM	113	Player Development IV	Emphasizes classroom and hands-on applications of full swing analysis and short game strategies. Special focus on golf course management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		
PGM	114	Player Development V	Introductory instruction on golf game improvement to assist PGM students in preparation for Player Ability Test.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		
PGM	120	Golf for Business and Life	Introduces nongolfing students to the game of golf. For beginners.	N	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		
PGM	130	PGA/PGM Level 1	Focuses on golf professional training program and the completion of the PGA Level One experience kit. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	2.		
PGM	150	Teaching Golf I	Introduces golf instruction. Focus on fundamentals of golf swing and teaching techniques. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	2.		
PGM	166	Turf Equipment Management	Introduces turf equipment used on golf courses. Instruction in maintenance, adjustment, and safety issues.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		
PGM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-4		
PGM	200	PGA/PGM Level 2	Focuses on golf professional training program and the completion of the PGA Level Two experience kit. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	2.		
PGM	250	Teaching Golf II	Communicating with student golfers, swing evaluation, key factors club fitting, developing a successful teaching practice.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		
PGM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-4		
PGM	300	PGA/PGM Level 3	Business planning and operations, business communications related to business of golf. Completion of the PGA Level Three experience kit. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		
PGM	350	Teaching Golf III	Teaching swing concepts. Developing a teaching philosophy, analyzing flawed swing mechanics through video and swing analysis software.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		
PGM	363	Landscape and Turf Irrigation	Design, management, and maintenance of landscape and turf irrigation systems. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	4.		
PGM	367	Landscape Plants and Design	Identification, design, and use of plants in urban landscapes. fee	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	4.		
PGM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-4		
PGM	400	GPTP IV	Food and beverage control, supervision and delegation of golf facilities. Completion of the PGA Level Three experience kit.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1.		
PGM	463	Golf and Sports Turf Management	Selection, establishment, and maintenance of turf grasses bred specifically for golf and sports facilities.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGM	466	Integrated Pest Control	Management of pests affecting golf turf and landscape plants. Structural Pest Control Board sprayer certification preparation offered during the semester.	N	LEC	N	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	2.		
PGM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-12		
PGM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Morrison School of Agribusiness and Resource Mgmt	1-4		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	
PGS	222	Human Sexual Behavior	Patterns of sexual behavior, including variations and deviations; theories of sexual attraction, sex differences, and sexual dysfunction and treatment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	304	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	Pre-requisites: MAT 119 (or MAT 170 or higher) or PSY 230 with C or better
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisites: Must have completed PGS 101 with a grade of C or greater or be currently enrolled
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with C or better
PGS	430	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned earned C or better or currently enrolled in MGT 301 or earned C or better or currently enrolled in PGS 101
PGS	452	Applied Social Psychology	Studies applications of social psychological theory and concepts in natural settings; research design and data analysis. Lecture, lab-type activities.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	Pre-requisites: PGS 350 or 351 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	453	Organizational Behavior	Surveys psychological theory and research as applied to the behavior of individuals in organizational settings.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisite: Must have earned C or better or currently enrolled in PGS 350
PGS	458	Group Dynamics	Theories and methods of group leadership, group effectiveness, communication within groups, and relations between groups and individual members.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PGS 350 (or 351) with C or better; PSY 290 with C or better
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	SB	Pre-requisites: Must have completed MUE 381 or PSY 290 with a grade of C or greater or be currently enrolled
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	471	Psychological Testing	Methods and theory of psychological testing; various types of psychological tests; consideration of ethical, social, and legal aspects of testing.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	
PGS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
PGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PGS	222	Human Sexual Behavior	Patterns of sexual behavior, including variations and deviations; theories of sexual attraction, sex differences, and sexual dysfunction and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	244	Introduction to Directed Child Study	Developmental theories and methods of social interaction with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PGS	270	Psychology of Adjustment	Principles of mental health, adjustment, conflict, stress, and coping processes derived from clinical and experimental research. Intended for nonmajors; cannot be used for major credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	
PGS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PGS	304	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: MAT 119 (or MAT 170 or higher) or PSY 230 with C or better
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	344	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PGS 101 with a grade of C or greater or be currently enrolled
PGS	351	Honors Social Psychology	Critical analysis of human social behavior for honors students; topics include stereotyping, social influence, attraction, aggression, helping, groups, and attitudes. Open only to students without previous credit for PGS 350.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	
PGS	365	Community Psychology	Mental health and psychological well-being in the community, emphasizing current issues and related research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 315 (or 350 or 351) with C or better; PSY 290 with C or better
PGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	399	Supervised Research	Experience within the context of current faculty research projects. Student is assigned responsibility depending on qualifications. Y grade only. May be repeated for a total of 6 hours.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		
PGS	414	History of Psychology	Historical development of psychology from its philosophical beginnings to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: PSY 290 with C or better
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed PSY 290 with C or better
PGS	430	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisite: Must have earned earned C or better or currently enrolled in MGT 301 or earned C or better or currently enrolled in PGS 101
PGS	441	Cognitive Development	Experimental and theoretical literature in child development and behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: PGS 341 with C or better; PSY 290 with C or better
PGS	443	Abnormal Child Psychology	Covers the major disorders of childhood and adolescence (e.g., autism, hyperactivity, phobias, and delinquency), including cause, diagnosis, treatment, and prevention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: Must have completed one of the following: PGS 315, 341, 350 or 351 with a grade of C or greater or be currently enrolled; Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	444	Adolescent Psychology and Psychopathology	Advanced-level survey of normal adolescent psychological development and psychological disorders of this age period.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 341 with C or better; PSY 290 with C or better
PGS	445	Child Language and Drawing	Language acquisition and developmental changes in drawing, considered in the context of cognitive developmental stages. Children's representation and communication of knowledge through language and drawing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PGS 341 with C or better; PSY 290 with C or better
PGS	446	Social Development	Discusses theory, research, and issues regarding social development. Topics may include formation of attachments, prosocial development, and gender-role development.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L or SB	Pre-requisites: PGS 341 with C or better; PSY 290 with C or better
PGS	451	Stereotyping, Prejudice, and Discrimination	Critical investigation of the processes underlying, and the factors contributing to, stereotyping, prejudice, and discrimination.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 350 (or 351) with C or better; PSY 290 with C or better
PGS	452	Applied Social Psychology	Studies applications of social psychological theory and concepts in natural settings; research design and data analysis. Lecture, lab-type activities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 350 or 351 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	458	Group Dynamics	Theories and methods of group leadership, group effectiveness, communication within groups, and relations between groups and individual members.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 350 (or 351) with C or better; PSY 290 with C or better
PGS	461	Interpersonal Influence	Principles and procedures that affect the process of social influence; consideration of attitudinal, compliance-inducing, and perceptual influences.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: PSY 290 with C or better; PGS 350 or 351 with C or better
PGS	462	Health Psychology	Contributions of psychology to health promotion and illness prevention, adaptation to acute and chronic illness, and to the healthcare system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	464	Minority Issues in Psychology	Psychological issues relating to the diversity of human cultural experiences among ethnic minorities in the U.S.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	465	Psychology of Stress and Coping	Readings in theory and research in the area of stress and coping. Lecture, discussion, class presentations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 315, 350 or 351 with C or better; PSY 290 with C or better
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	SB	Pre-requisites: Must have completed MUE 381 or PSY 290 with a grade of C or greater or be currently enrolled
PGS	467	Psychology of Magical Beliefs	Psychological nature and bases of magical beliefs and their impact on health behaviors, eating practices, and interpersonal relations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PGS 315 (or PGS 466 or PSY 434) with C or better; PSY 290 with C or better
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	471	Psychological Testing	Methods and theory of psychological testing; various types of psychological tests; consideration of ethical, social, and legal aspects of testing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PGS	472	Clinical Psychology	Clinical psychology as a science and profession. Historical development, methods of interviewing, assessment, and therapeutic intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PGS 443 or 466 with C or better
PGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: PSY 290 with C or better
PGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-7		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-3		
PGS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PGS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PGS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		Pre-requisites: Must be a Graduate student, either degree seeking or non degree seeking
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	250	Psychology and Society	Addresses how social and behavioral science theory and research are used to understand behavior related to various social issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	304	Effective Thinking	Understanding and improving intellectual and behavioral skills; information analysis, inference, logic, problem solving, and decision making.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: MAT 119 (or MAT 170 or higher) or PSY 230 with C or better
PGS	306	Environmental Psychology	Concepts and research strategies in the study of behavior in interaction with physical environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	315	Personality Theory and Research	Definition and description of personality in terms of theoretical and methodological approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	341	Developmental Psychology	Analyzes behavior development in terms of psychological principles. Current research in human development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	344	Directed Child Study	Theories and methods of intervention with preschool children and supervised practicum in the Child Study Laboratory.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have completed PGS 101 with a grade of C or greater or be currently enrolled
PGS	370	Interpersonal Relationships	Development of personal skills for competent functioning in interpersonal relationships across multiple social contexts. Principles of mental health adjustment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 101 with C or better
PGS	385	Psychology of Gender	Examines, from a psychological perspective, the similarities and differences in beliefs, attitudes, and behaviors of women and men.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
PGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	399	Supervised Research	Experience within the context of current faculty research projects. Student is assigned responsibility depending on qualifications. Y grade only. May be repeated for a total of 6 hours.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
PGS	427	Psychology of Aging	Analyzes loss, maintenance, and gain associated with cognitive and affective aging. Individual differences in coping with normative life transitions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have completed PSY 290 with C or better
PGS	430	Industrial Psychology	Organizations and management systems: motivation and work performance; human factors in systems design and evaluation; personnel selection and testing.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisite: Must have earned earned C or better or currently enrolled in MGT 301 or earned C or better or currently enrolled in PGS 101
PGS	443	Abnormal Child Psychology	Covers the major disorders of childhood and adolescence (e.g., autism, hyperactivity, phobias, and delinquency), including cause, diagnosis, treatment, and prevention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	Pre-requisites: Must have completed one of the following: PGS 315, 341, 350 or 351 with a grade of C or greater or be currently enrolled; Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PGS	444	Adolescent Psychology and Psychopathology	Advanced-level survey of normal adolescent psychological development and psychological disorders of this age period.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: PGS 341 with C or better; PSY 290 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PGS	446	Social Development	Discusses theory, research, and issues regarding social development. Topics may include formation of attachments, prosocial development, and gender-role development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	Pre-requisites: PGS 341 with C or better; PSY 290 with C or better
PGS	453	Organizational Behavior	Surveys psychological theory and research as applied to the behavior of individuals in organizational settings.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: Must have earned C or better or currently enrolled in PGS 350
PGS	462	Health Psychology	Contributions of psychology to health promotion and illness prevention, adaptation to acute and chronic illness, and to the healthcare system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 290 with C or better
PGS	465	Psychology of Stress and Coping	Readings in theory and research in the area of stress and coping. Lecture, discussion, class presentations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 315, 350 or 351 with C or better; PSY 290 with C or better
PGS	466	Abnormal Psychology	Historical and current definitions, theory, and research concerning abnormal behavior. Major categories of psychopathology, including related treatment approaches.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have completed MUE 381 or PSY 290 with a grade of C or greater or be currently enrolled
PGS	468	Psychology and Law	Theories, research, and practice in psychology as related to law, including criminal, civil, domestic relations, and professional issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 290 with C or better
PGS	472	Clinical Psychology	Clinical psychology as a science and profession. Historical development, methods of interviewing, assessment, and therapeutic intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 443 or 466 with C or better
PGS	473	Psychology and Politics of Child Maltreatment	Examines psychological literature on child maltreatment in the context of development. Explores interactions between professionals responding to maltreatment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101 with C or better; PGS 341 with C or better; PSY 230 with C or better; PSY 290 with C or better
PGS	480	Cross-Cultural Social Psychology	Focuses on patterns of social behavior in individualistic and collectivistic cultures. Includes multidisciplinary research using qualitative and quantitative methodologies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: PGS 101 with C or better; PGS 350 with a C or better
PGS	482	Social Influence and Consumer Behavior	Discusses social influence principles, emphasizing strategies employed by professionals that affect consumer behavior. Analyzes consumer defenses against manipulations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: PGS 350 with C or better
PGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
PGS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
PGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisites: PSY 290 with C or better
PGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
PGS	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PGS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PGS	101	Introduction to Psychology	Major areas of theory and research in psychology. Requires participation in department-sponsored research or an educationally equivalent alternative activity.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
PGS	350	Social Psychology	Human social behavior, including such concepts as aggression, attraction, attribution, conformity, groups, helping, person perception, and persuasion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Must have completed PGS 101 with a grade of C or greater or be currently enrolled
PGV	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PGV	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	120	Introduction to Medical and Bioethics	Philosophical examination of moral problems that arise in medicine and biology, e.g., end-of-life, reproduction, and patient's rights.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	300	Philosophical Argument and Exposition	Develops techniques of philosophical argument and exposition. Frequent written exercises. Course content may vary with instructor.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L	
PHI	301	History of Ancient Philosophy	History of Western philosophy from its beginnings through the Hellenistic period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
PHI	302	History of Modern Philosophy	History of Western philosophy from the Renaissance through Kant.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
PHI	304	Existentialism	Covers such topics as absurdity, authenticity, the meaning of life and death, responsibility, and subjectivity. May include readings in phenomenology.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	305	Ethical Theory	Current theories about the nature of morality (metaethics) and about what is right and wrong (normative ethics).	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	307	Philosophy of Law	Nature and source of law and its relation to morality. Legal rights, legal enforcement of morals, civil disobedience, liability and responsibility, punishment, judicial reasoning, justice, property, and differences between theories of natural and positive law.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	308	Philosophy of Art	Central problems in philosophy of art, e.g., the nature of a work of art, modern and traditional theories of art, aesthetic perception and experience, and objectivity and relativity in art criticism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	309	Social and Political Philosophy	Alternative principles and methods relevant to problems of human association and conflict; discusses justice and power, freedom and equality, and autonomy and order.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	310	Environmental Ethics	Examines a full range of philosophical positions pertaining to our moral relationship to the natural world; anthropocentrism, individualism, biocentrism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	311	Philosophy in Literature	Selected works of literature introducing philosophical problems such as the nature of moral goodness and people's relation to the world and other people.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	312	Theory of Knowledge	Nature, sources, and limits of human knowledge. Topics may include truth, a priori knowledge, empirical knowledge, perception, induction, and skepticism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	Credit is allowed for only HPS 314 or PHI 314.
PHI	315	Philosophy of Language	Problems pertaining to the nature of language, including meaning, reference, truth, definition, analyticity, translatability, synonymy, and contributions of contemporary linguistics.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	316	Metaphysics	Problems pertaining to the nature of reality. Topics may include nature of person, minds, substance, universals, space, time, causation, and modality.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	

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PHI	317	Philosophy of Mind	Nature of consciousness. Common sense view of mind, behaviorism, materialism, dualism, functionalism, self-knowledge, and knowledge of other minds.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	318	Philosophy of Religion	Classical arguments for the existence of God. Argument from evil against the existence of God. Justification of religious belief.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	319	Philosophy of Computing	Philosophical problems surrounding the theory of computation. Turing machines, mind and AI, neural network computing, ethics, and epistemology of computing.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	CS	
PHI	320	Bioethics	Critical examination of moral questions arising in biomedical contexts, particularly due to new technologies and scientific discoveries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	325	Philosophy of Social Science	Philosophical problems surrounding the aims, structure, and methods of the social sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU or SB	
PHI	333	Introduction to Symbolic Logic	Symbolic techniques, emphasizing deductions and proofs in the propositional and 1st-order predicate calculi.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	335	History of Ethics	Major works of moral philosophy, both ancient and modern, such as those by Plato, Aristotle, Hobbes, Hume, Kant, and Mill.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	390	Jewish Philosophy	The history of Jewish philosophy from its origins in the Hebrew Scriptures to postmodern expressions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102 (or 105, or 108) with a grade of C or better. Students who have credit for PHI 390 may not enroll in REL 314
PHI	391	Historical Perspectives on Philosophy and Religion	Comprehensive investigation of central concepts in the philosophy of religion in the history of Western philosophy.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Credit is allowed for only PHI 391 or REL 391
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	401	Rationalism	Examines classical philosophical rationalism, as in Descartes, Spinoza, Malebranche, or Leibniz. Contemporary rationalist thought may also be examined.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	402	Empiricism	Examines representatives of either classical or contemporary philosophical empiricism, e.g., Bacon, Hobbes, Locke, Butler, Berkeley, Reid, Hume, Mill, Carnap, and Ayer.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	403	Contemporary Analytic Philosophy	Aims and methods of such 20th-century philosophers as Frege, Moore, Russell, Wittgenstein, Carnap, Ayer, Wisdom, Ryle, Austin, Strawson, Quine, and Sellars, with application to metaphysics and epistemology.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
PHI	413	Advanced Symbolic Logic	Properties of formal systems axiomatizing propositional and 1st-order predicate logic. May also include modal logic, number theory, and limits of logicism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	420	Topics in Philosophy	Course descriptions on file in department. May be repeated for credit.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	428	Immunophilosophy	Integrates immunology and philosophy, including psychoneuroimmunology and the mind-body problem, and immunologic/psychologic perspectives on self and self-identity.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: MIC 420, PHI 317, HPS314, or PHI 314 with a C or better. Students who have credit for MIC 428, may not enroll in PHI 428
PHI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		Pre-requisites: Must be an Honors student
PHI	493	Honors Thesis		N	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6	L	Pre-requisites: Must be an Honors student
PHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	497	Honors Colloquium		Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		
PHI	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-7		

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PHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		
PHI	501	Foundations of Ethics I	Studies primary texts of classic ethical theories and their applications to various issues in daily life and the professions. Ethical traditions include some of these frameworks: virtue ethics and natural law ethics, consequentialism and contractualism, deontology and critical communitarianism. Pays attention to the shifting nature of the relation between ethics and religion. In the applied, activity-portion of the course, students investigate real-life ethical issues and examine them from several normative perspectives.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	502	Foundations of Ethics II	Studies contemporary moral philosophy and social ethics and their applications to the pressing issues of the present age. Considers some of these sources for ethical thinking in the twentieth century and their relation to classic traditions: existential ethics, critical theory, race and gender theory, postmodern ethics, and post-Holocaust ethics. Examines the possibility of an ethic suitable for the global coexistence among secular, spiritual, and postsecular perspectives. In the applied, activity-portion of the course, students investigate real-life ethical issues with a global significance and examine them from several contemporary perspectives.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PHI	550	Ethical and Spiritual Issues in Pastoral Care	Recalling the ancient Socratic, biblical, and other spiritual traditions of the cura animarum (care for and cure of the soul) and joining contemporary post/secular conversations relevant to the integration of the body-mind-spirit, this course introduces basic concepts and practices of the pastoral care ethics and spirituality. Focuses on the irreducible relations among existential (ontological), therapeutic (psychosomatic), and spiritual (religious) dimensions of care. The theoretical part of the course is inter-faith in approach, holistic in scope, and specialized in content; in the applied, activity-portion of the seminar, students investigate real-life issues in care ethics and spirituality and examine them from several perspectives studied during the semester.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: AEP 501 and AEP 502 with a D or better; students who have credit for PHI 550 or REL 585, may not enroll in AEP 550
PHI	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisites: Masters or Doctoral Philosophy student.
PHI	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		
PHI	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
PHI	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		

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PHI	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	PRA	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PHI	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		
PHI	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	THE	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		
PHI	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 101, 105 or 107 with C or better
PHI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	318	Philosophy of Religion	Classical arguments for the existence of God. Argument from evil against the existence of God. Justification of religious belief.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	324	Existential Ethics	Ethical aspects of theistic and atheistic accounts of existentialist philosophy. Freedom and responsibility and their significance in human experiences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	340	Bioethics	Philosophical exploration of ethical issues in healthcare delivery and the life sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	360	Business and Professional Ethics	Examines moral theories applied to cases of corporate responsibility, property rights, environment, fairness, profit, employee rights, and responsibilities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	406	Moral Dilemmas	Philosophical analysis of moral dilemmas arising in professional and public settings. Ethical decision making in business, educational, human service, and scientific communities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: Must have completed ENG 101, or 105 with a grade of C or greater, or be currently enrolled in ENG 101, or 105
PHI	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
PHI	408	Feminist Ethics	Philosophical exploration of the theoretical and practical aspects of ethical issues affecting women from diverse feminist viewpoints.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	409	Eco-Community Ethics	Traces human interaction with the Earth from hunters and gatherers to the present day, examining groups who have lived within ecological constraints and limits.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
PHI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
PHI	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
PHI	101	Introduction to Philosophy	Explores issues that philosophers have traditionally considered, including morality, reality, and knowledge.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHI	103	Principles of Sound Reasoning	Fallacies, validity, and soundness of arguments. May include syllogistic, elementary symbolic, inductive logic, and scientific method.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
PHI	105	Intro to Ethics	Philosophical examination of such questions as, How should we live? Is morality a social invention? Does anything matter?	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	120	Introduction to Medical and Bioethics	Philosophical examination of moral problems that arise in medicine and biology, e.g., end-of-life, reproduction, and patient's rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	306	Applied Ethics	Philosophical discussion of contemporary moral and political issues, such as abortion, euthanasia, animal rights, affirmative action, and sexual rights.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	311	Philosophy in Literature	Selected works of literature introducing philosophical problems such as the nature of moral goodness and people's relation to the world and other people.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
PHI	314	Philosophy of Science	Structure and justification of scientific theories, explanation, and theory change. Roles of observation and laws, theoretical concepts and entities, reduction, probability, confirmation, space and time, and causation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Credit is allowed for only HPS 314 or PHI 314.
PHI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PHI	407	Environmental Philosophy and Policy	Ethical concepts and theories applied to environmental issues: biotic community, biodiversity, degradation, ecofeminism, ecology, economics, population, property rights, and wilderness. Not open to students with credit in PHI 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	Pre-requisites: ENG 101 or 105 with C or better. Credit is allowed for only IAS 407 or PHI 407
PHL	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PHL	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
PHS	110	Fundamentals of Physical Science	One-semester survey of the principles of physics and chemistry. Presumes understanding of elementary algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHS	208	Patterns in Nature	Project-oriented science course with computer training to develop critical thinking and technical skills for student-oriented K-12 science lessons. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in physical science and physics. Requires weekly reflective reading and writing. May be repeated for credit. Fee.	N	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	3.	C	
PHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6	L	Pre-requisites: Must be an Honors student
PHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-7		
PHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-3		
PHS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHS	505	Energy and the Environment	Current problems in energy resources, production, consumption, and conservation.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	530	Methods of Physics Teaching I	Inquiry approach to high school physics teaching.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	531	Methods of Physics Teaching II	Extension of modeling techniques introduced in PHY 580.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	534	Methods of Teaching Physical Science I, II, III	Design of curriculum and conduct of instruction for physical science courses.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	540	Integrated Physics and Chemistry	Collaborative inquiry methods for teaching and coordinating physics and chemistry.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	542	Integrated Mathematics and Physics	Mathematical models and modeling as an integrating theme for secondary mathematics and physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	550	Physics and Astronomy	Astronomy curricula and projects for secondary school, with emphasis on the role of physics in astronomy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	556	Astrophysics	Structure and evolution of stars, galaxies, and the universe. For secondary school teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	560	Matter and Light	Interactions of light with matter. Lasers and spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	564	Light and Electron Optics	Principles and practice of electron-optical instruments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	570	Spacetime Physics	Special and general theories of relativity with implications for space and time travel.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	581	Structure of Matter and its Properties	Models of matter and its properties.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		

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PHS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-15		
PHS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-15		
PHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	4.	SQ	
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	Pre-requisites: MAT 170 (or higher) with C or better or minimum score of 60% on the ALEKS Calculus Placement Exam or Co-requisite of MAT 210 (or higher)
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	Pre-requisites: PHY 111 with C or better
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre/Co-requisite: PHY 111 with C or better if completed
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre/Co-requisite: PHY 112 with C or better if completed
PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	
PHY	122	University Physics Laboratory I	Lab accompanying PHY 121. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre/Co-requisite: PHY 121 with C or better if completed
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	SQ	Pre-requisites: MAT 266 or MAT 271 or MAT 291 with C or better ; PHY 121 with C or better; Pre or Co-requisite: MAT 267 or MAT 272 (with C or better if completed)
PHY	132	University Physics Laboratory II	Lab accompanying PHY 131. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit. fee.	N	LAB	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	1.	SQ	Pre/Co-requisite: PHY 131 with C or better if completed
PHY	321	Vector Mechanics and Vibration	Vector-based formulation of Newtonian mechanics of particles and rigid bodies, including oscillatory systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
PHY	331	Principles of Modern Electromagnetism	Studies the unified description of electromagnetic phenomena provided by Maxwell's equations in differential and integral form.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.		
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	
PHY	105	Basic Physics	One-semester survey of the principles of physics. Primarily for students who intend to take PHY 121, 131 but have not taken high school physics.	N	REC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: MAT 170 (or higher) with C or better or minimum score of 60% on the ALEKS Calculus Placement Exam or Co-requisite of MAT 210 (or higher)
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: PHY 111 with C or better
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre/Co-requisite: PHY 111 with C or better if completed
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre/Co-requisite: PHY 112 with C or better if completed

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PHY	121	University Physics I: Mechanics	Kinematics; Newton's laws; work, energy, momentum, conservation laws; dynamics of particles, solids, and fluids. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: MAT 265 or MAT 270 with C or better; Pre/Co-requisite: MAT 266 or MAT 271 with C or better if completed
PHY	122	University Physics Laboratory I	Lab accompanying PHY 121. Both PHY 121 and PHY 122 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre/Co-requisite: PHY 121 with C or better if completed
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	SQ	Pre-requisites: MAT 266 or MAT 271 or MAT 291 with C or better; PHY 121 with C or better; Pre or Co-requisite: MAT 267 or MAT 272 (with C or better if completed)
PHY	132	University Physics Laboratory II	Lab accompanying PHY 131. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit. fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	SQ	Pre/Co-requisite: PHY 131 with C or better if completed
PHY	150	Physics I	Introductory physics for majors. Kinematics, Newton's Laws, basic forces, energy, momentum, special relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 270 or MAT 290 with C or better
PHY	151	Physics II	Continuation of PHY 150. Electromagnetic fields; Ampere's and Faraday's Laws; Maxwell's equations; basic circuit elements. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 271 or MAT 266 with C or better; PHY 150 or PHY 121 and PHY 122 with C or better
PHY	190	Seminar: Physics as a Curriculum and a Profession	Seminar for new Physics majors. Instruction and information on curriculum, departmental functions, and professional preparation. Weekly meetings and excursions. Pass/fail grading.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of Physics	1.		
PHY	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisites: Freshman student; Maximum 25 hours
PHY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	201	Mathematical Methods in Physics I	Differential equations, linear equations, vectors, matrices, Fourier series, and numerical methods. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.	CS	Pre-requisites: MAT 272 or MAT 267 with C or better; PHY 151 (or PHY 131 and PHY 132) with C or better
PHY	241	University Physics III	Thermodynamics, kinetic theory, physical and wave optics, relativity, photons, matter waves, atomic physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 131
PHY	252	Physics III	Continuation of PHY 151. Wave physics, oscillations, harmonic systems, physical optics, thermodynamics, kinetic theory. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	4.	SQ	Pre-requisites: MAT 272 or MAT 267 with C or better; PHY 151 (or PHY131 and PHY132) with C or better
PHY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHY	302	Mathematical Methods in Physics II	Continuation of PHY 201. Vector calculus, complex variables, partial differential equations, special functions, numerical methods. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY201 with C or better
PHY	310	Classical Particles, Fields, and Matter I	Particle kinematics, mechanics, conservation laws, particle motion in force fields, dynamics of two-body systems, reference frames, rigid body motion, relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 201 with C or better; PHY 252 with C or better. Co-requisite: PHY 302
PHY	311	Classical Particles, Fields, and Matter II	Electrostatic and gravitational fields, Poisson and Laplace equations, dielectric materials, magnetic fields and materials, magnetic induction, Faraday's Law. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 302 with C or better; PHY 310 with C or better
PHY	314	Quantum Physics I	Photons, models of the atom, wave properties of matter, introduction to wave mechanics, 1-D systems in quantum mechanics. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Prerequisites: PHY 201 with C or better; PHY 252 with C or better
PHY	315	Quantum Physics II	General principles of quantum mechanics, 3-D problems, approximation methods, spin, introduction to many-particle systems. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 302 with C or better; PHY 314 with C or better
PHY	321	Vector Mechanics and Vibration	Vector-based formulation of Newtonian mechanics of particles and rigid bodies, including oscillatory systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	331	Principles of Modern Electromagnetism	Studies the unified description of electromagnetic phenomena provided by Maxwell's equations in differential and integral form.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	333	Electronic Circuits and Measurements	Basic principles of electronic circuit analysis and measurement techniques using modern instrumentation and computer-aided analysis of data. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Prerequisites: MAT 272 or MAT 267 with C or better; PHY 151 or PHY 131 and PHY132 with C or better
PHY	334	Advanced Laboratory I	Selected experiments from contemporary physics. Emphasizes modern instrumentation, computer-assisted acquisition and analysis of data, and report form writing. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	2.		Pre-requisites: MAT 272 or MAT 267 with C or better; PHY 151 or PHY 131 and PHY 132 with C or better
PHY	361	Introductory Modern Physics	Special relativity and introductory quantum theory with applications drawn from atomic, nuclear, and solid-state physics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	412	Classical Particles, Fields, and Matter III	Electromagnetic fields of moving charges, Maxwell's equations, harmonic phenomena, oscillations, waves, electromagnetic radiation, covariant electromagnetism, introduction to general relativity. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	416	Quantum Physics III	Introduces the quantum theory of atoms, molecules, solids and nuclei, Dirac's equation. fee	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	420	Research Paper	Scientific report writing. Culminates in a paper based on library or lab research or both. Taken in conjunction with other courses as approved.	N	RSC	N	OPT	Liberal Arts and Sciences	Department of Physics	1.	L	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	441	Statistical and Thermal Physics	Statistical and experimental basis of heat, temperature, and entropy. Mechanical and statistical basis of the laws of thermodynamics. Applies macroscopic thermodynamics. Phase equilibrium.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	452	Physical Optics	Principles of reflection, refraction, diffraction. Additional topics from contemporary optics may include Fourier transform spectroscopy, linear systems theory, holography.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	462	Subatomic Physics	Nuclear properties, models, decays and reactions; fundamental forces, field theories, symmetry principles; hadrons, quarks, and leptons; the Standard Model.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311 with C or better; PHY 315 with C or better
PHY	465	Advanced Laboratory II	Continuation of PHY 334. Students may substitute a short laboratory research project for one of the elective experiments of the course, in consultation with a faculty sponsor and the course instructor. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 334 with C or better
PHY	466	Advanced Laboratory III	Continuation of PHY 465. fee	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	1-3		Pre-requisite: PHY 465 with C or better
PHY	480	Methods of Teaching Physics	Evaluates various approaches to the teaching of high school physics. Preparation of demonstrations and experiments. Organization of a lab. Designed for secondary school physics teachers.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	481	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure. Credit is allowed for only PHY 481 or 511.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311 with C or better; PHY 315 with C or better
PHY	482	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 482 or 512.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 481 with C or better. Students who have credit for PHY 512, or MSE 527, or NAN 512, may not enroll in PHY 482
PHY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6		Pre-requisites: Must be an Honors student
PHY	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Physics	1-6	L	Pre-requisites: Must be an Honors student
PHY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	495	Project Research	Supervised project in physics or astrophysics. May be repeated for credit.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-3		
PHY	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-6		
PHY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-7		
PHY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-3		
PHY	500	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	501	Methods of Computational and Theoretical Physics	Analytic and computational approaches to problems in classical and quantum physics. Topics may include numerical analysis, molecular dynamics, Monte Carlo simulations, density functional theory, high performance computing.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	502	Methods of Theoretical Physics	Continuation of PHY 501.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	511	Materials Physics I	Fundamentals of materials physics: crystal structure, diffraction, elasticity, point defects, dislocations, lattice vibrations, thermal properties, periodic potential, band structure.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Pre-requisites: PHY 311 and PHY 315; Credit is allowed for only NAN 511, MSE 526, PHY 481 or PHY 511.
PHY	512	Materials Physics II	Electronic behavior of materials: energy bands, electronic properties, metals, semiconductors, insulators, optical properties, magnetic properties, superconductivity, biophysics. Credit is allowed for only PHY 512 or 482.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	521	Classical and Continuum Mechanics	Variational principles, Lagrange's and Hamilton's equations, canonical transformations, Hamilton-Jacobi theory, introduction to chaos and nonlinear dynamics, fundamentals of elasticity theory and fluid mechanics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	523	Relativity	Special and general theories of relativity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	531	Electrodynamics	Special theory of relativity, covariant formulation of electromagnetic interactions, Maxwell's equations, electrostatics and magnetostatics, dielectric media, inhomogeneous wave equations, Lienard-Wiechert potentials, interactions of charged particles and electromagnetic waves, scattering and diffraction.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	532	Advanced Topics in Electrodynamics	Electromagnetism of dielectric media, magnetic media, and superconductors; introduction to magnetohydrodynamics, laser physics, and nonlinear optics; additional special topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	541	Statistical Physics	Postulates of statistical mechanics, equilibrium ensembles, Bose and Fermi statistics, density matrix, modern theory of phase transitions, fluctuations, and linear response theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	542	Topics in Biophysics	Overview of modern biology, length scales: emphasizes molecular and cellular biology. Nonequilibrium systems: compare and contrast stochastic processes in biological and physical systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	544	Introduction to Nanoscience	Survey of nanoscience: quantum/ statistical mechanics/kinetics; measurement and fabrication methods; applications to materials, nano-electronics, molecular electronics and nano-biology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	546	Surfaces and Thin Films	Thermodynamics and kinetics of surface structures and thin film processes. Ultra-high vacuum techniques for examining surfaces. Case studies of physics, chemistry and nanoscience applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	551	X-Ray and Electron Diffraction	Fresnel and Fraunhofer diffraction in integral formulation; diffraction of x rays and neutrons by crystal lattices; structures of solids, including crystal structure analysis; theory and techniques of electron microscopy/diffraction of crystalline/noncrystalline specimens.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		If you have credit for MSE 552, or NAN 552, or SEM 552, you may not enroll in PHY 552
PHY	553	Electron Microscopy Laboratory I	Lab support for PHY 552.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent beam diffraction, and electron holography.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	555	Electron Microscopy Laboratory II	Lab support for PHY 554.	N	LAB	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	561	Nuclear Physics	Properties of nuclei, conservation laws, internucleon forces, nuclear structure models, reactions and decays, quark model with applications to nuclei.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	562	Nuclear Physics	Continuation of PHY 561.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	567	Relativistic Quantum Mechanics and Field Theory	Relativistic quantum mechanics and introduction to the quantum field theory of scalar, spinor, and electromagnetic fields. QED through renormalization theory.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	568	Particle Physics Phenomenology	Hadron physics, internal symmetry groups, weak interactions, lepton and quark phenomenology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	569	The Standard Model and Beyond	Introduces and applies the standard model of strong and electroweak interactions. Special topics include recent developments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	571	Quantum Physics	Review modern physics, chemistry, math. Differential equation, operator, matrix formulations. Free particle, bound state problems. Examples from physics, chemistry and nanoscience.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		Credit is allowed for only NAN 571 or PHY 571
PHY	576	Quantum Theory	Operator methods in quantum mechanics, time-independent perturbation theory, variational methods, angular momentum and group representation theory, identical particles; quantum dynamics, including time-ordered operators, time-dependent perturbation theory, and Fermi's golden rule.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	577	Advanced Quantum Theory	Scattering in three dimensions, second quantization of bosons and fermions, quantization of electromagnetism, addition of angular momenta, electronic structure of atoms and molecules, introduction to relativistic quantum mechanics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	581	Quantum Theory of Solids I	Band structure models: pseudopotentials, density functional theory; optical and magnetic response; elementary excitations; transport theory, electron-photon interactions and superconductivity.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	582	Quantum Theory of Solids II	Continuation of PHY 581: broken symmetry; phase transitions; disorder, topological defects; nano-structures topics; soft condensed matter and current research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	587	Quantum Optics	Quantization of the electromagnetic field. Quantum theory of coherence, photon counting, photon states, lasers, density operators, and atomic Raman scattering.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		
PHY	588	Quantum Optics	Continuation of PHY 587.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Physics	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-4		
PHY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	700	Research Methods	Course on research methods in a specific discipline.	Y	RSC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Physics	1-12		
PHY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Department of Physics	1-15		
PHY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Physics	1.		
PHY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Physics	1-15		
PHY	101	Introduction to Physics	Emphasizes applications of physics to life in the modern world. Presumes understanding of elementary algebra.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	SQ	
PHY	111	General Physics	Noncalculus treatment of the principles of physics for nonphysics majors. Students whose curricula require a lab course must also register for PHY 113. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	Pre-requisites: MAT 170 (or higher) with C or better or minimum score of 60% on the ALEKS Calculus Placement Exam or Co-requisite of MAT 210 (or higher)
PHY	112	General Physics	Continuation of PHY 111. Students whose curricula require a lab course must also register for PHY 114. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	SQ	Pre-requisites: must have completed PHY 111 with a grade of C or greater, or be currently enrolled in PHY 111
PHY	113	General Physics Laboratory	Elementary experiments in physics. Requires outside preparation for experiments and report writing. May be taken concurrently with, or subsequent to PHY 111. Both PHY 111 and PHY 113 must be taken to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre/Co-requisite: PHY 111 with C or better if completed
PHY	114	General Physics Laboratory	See PHY 113. May be taken concurrently with, or subsequent to, PHY 112. Both PHY 112 and PHY 114 must be taken to secure SQ General Studies credit.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1.	SQ	Pre/Co-requisite: PHY 112 with C or better if completed
PHY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PHY	131	University Physics II: Electricity and Magnetism	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Both PHY 131 and PHY 132 must be taken to secure SQ General Studies credit.	N	LEC	N	OPT	Office of the Provost	Office of the Provost	3.	SQ	Pre-requisites: MAT 266 or MAT 271 or MAT 291 with C or better ; PHY 121 with C or better; Pre or Co-requisite: MAT 267 or MAT 272 (with C or better if completed)
PLA	161	Graphic Communication	Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisite: Must be Pre-Landscape Architecture student
PLA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
PLA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	222	Computers in Landscape Architecture	Computer applications in landscape architecture including CAD, GIS, graphics, and visualization.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	CS	
PLA	240	Landscape Survey Techniques	Develops landscape survey skills including aerial photography, satellite images, geo-referencing, landscape surveys, and field data collection.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	261	Landscape Architecture I	Landscape communication: communication techniques for urban planning and landscape architecture. Credit is allowed only for PLA 261 or PUP 261.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		
PLA	262	Landscape Architecture II	Reading the landscape: observing, experiencing, and graphically expressing the symbolic and aesthetic significance of natural landscapes.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		
PLA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	344	Landscape Construction II	Characteristics of materials and methods used in landscape architectural construction. Studio.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	345	Professional Practice Seminar	Landscape architecture practice including contracts, project and office management, liability, licensing, and professional development.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	412	Landscape Ecology and Planning	Reviews the evolution of landscape ecology and landscape planning and examines use and value.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	413	Southwest Landscape Interpretation	Explores methods and implications of landscape interpretation within the American Southwest.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		
PLA	420	Theory of Urban Design	Analyzes the visual and cultural aspects of urban design. Theories and techniques applied to selected study models.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.	HU	
PLA	446	Landscape Construction III	Landscape construction focusing on low-technology, biotechnical, regional, and experimental techniques or systems. Lecture, studio.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	3.		Pre-requisites: Must be Landscape Architecture BSLA student
PLA	462	Landscape Arch VI	Advanced landscape architecture: integrative capstone studio with multifaceted design problems. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	4.		Pre-requisites: Must be Landscape Architecture BSLA student; Must have completed PLA 461 with a grade of C or greater or be currently enrolled
PLA	485	International Field Studies in Planning	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	N	FLD	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12	G	
PLA	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6		
PLA	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-6	L	Pre-requisites: Must be an Honors student
PLA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-7		

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PLA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-3		
PLA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-4		
PLA	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1-12		
PLA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Herberger Inst Design & Arts	School of Architecture and Landscape Architecture	1.		
PLB	414	Plant Pathology	Identification and control of biotic and abiotic factors that cause common disease problems to plants.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	L	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	108	Concepts in Plant Biology	Introduces concepts of plant biology that are of human relevance using commercially important, edible, and medicinal plants as examples. Not for majors in the biological sciences. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	SQ	
PLB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	200	Biology of Plants	Analyzes the structure/function interaction for plant cells and tissues and properties that emerge in whole plants. Both PLB 200 and PLB 201 must be taken together to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	SQ	
PLB	201	Biology of Plants Laboratory	Lab/field experiments to teach techniques and protocols of the scientific process; reinforces concepts from lecture by asking questions and solving problems. Both PLB 200 and PLB 201 must be taken together to secure SQ General Studies credit.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Life Sciences	1.	SQ	
PLB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	300	Comparative Plant Diversity	Surveys major plant groups and other photosynthetic organisms. Emphasizes comparative data analysis, evolutionary inference, and phylogenetic methods. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.	L or SG	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	302	Plants and Civilization	Plants and plant products used by people throughout the world. Cultivation, processing, and uses in modern life (beverages, fibers, foods, medicinals, and perfumes).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	304	Biology of Algae and Fungi	Ecology, economics, and evolutionary diversity of the algae and fungi. Traditional and modern biotechnological uses.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	305	Desert Annuals and Cacti	Adaptive biology of desert annuals, cacti, and succulents, analyzing diverse traits that permit survival in deserts: reproduction, structure, and physiology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	306	Plant Anatomy	Development and mature structure of tissues of vascular plants; patterns and modifications of the leaf, stem, root, and flower.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	308	Plant Physiology	Concepts of plant function: carbon metabolism, energy acquisition, regulation of growth and development, stress responses, and water and nutrient uptake.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	310	The Flora of Arizona	Overview of Arizona's flora and plant communities; emphasizes identification, classification, and natural history of the state's native vascular species. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	320	Environmental Science (Nonmajor)	Environmental and biological concepts used to understand ecological systems with specific references to problems caused by humans. Cannot be used for major credit in the biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	G	
PLB	322	Environmental Science (Major)	Nature of environmental and biological interaction: historical and modern examples, regional and global issues. Participation in environmental problem-solving activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	350	Applied Genetics	Introduces molecular genetics with emphasis on application of genetics to solve biological questions and to engineer organisms for biotechnology. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: MBB 247 or BIO 340 with C or better; Credit is allowed for only MBB 350 or PLB 350
PLB	400	Lichenology	Chemistry, ecology, physiology, and taxonomy of lichens.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	401	Mycology	Fungal morphology and systematics with an introduction to fungal cell biology, ecology, economic significance, and growth and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLB	402	Service Learning	K-12 tutoring and mentoring internship related to academic course work in plant biology; requires weekly reflective reading and writing.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	C	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	404	Phycology	Algae (both fresh water and marine forms), emphasizing field collection and identification of local representatives. Morphological, ecological, and economic aspects of the algae. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	407	Plant Fossils and Evolution	Broad survey of plant life of the past, including the structure of plant fossils, their geologic ranges, geographic distribution, and paleoenvironment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	410	Angiosperm Taxonomy	Principles underlying angiosperm phylogeny.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: PLB 310 with C or better
PLB	411	Trees and Shrubs of Arizona	Identification of woody plants from desert, chaparral, and forest habitats in Arizona. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	414	Plant Pathology	Identification and control of biotic and abiotic factors that cause common disease problems to plants.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	L	Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	416	Medical Botany	Explores plants affecting human health: modern- and folk-usage medicinal plants. Quality control, clinical evidence, plant chemistry, and ethnopharmacology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	420	Plant Ecology: Organisms and Populations	Factors and controls on the physiological ecology and organization of plants and plant populations using empirical and theoretical approaches. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with C or better
PLB	421	Plant Ecology: Communities and Ecosystems	Plant community organization, field sampling techniques, and the structure and function of terrestrial ecosystems emphasizing the role of vegetation. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with C or better
PLB	422	Plant Geography	Plant communities of the world and their interpretation, emphasizing North American plant associations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: GPH 111 or BIO 187 (or both PLB 200 and PLB 201) with C or better; Students who have credit in GPH 422, may not enroll in PLB 422
PLB	430	Statistical Analyses in Environmental Science	ANOVAS, 1-way classification of factorial and partially hierarchic designs; introductory multivariate statistics. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better
PLB	432	Computer Applications in Biology	Computer analysis techniques in biology emphasizing data entry, management and analysis, and graphic portrayal. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.	CS	Pre-requisites: C or better in: BIO 187 (or both PLB 200 and PLB 201) and BIO 188
PLB	434	Landscape Ecological Analysis and Modeling	Technical methods of landscape ecological analyses. Includes mathematical and statistical examination and modeling of landscape ecological patterns and processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 320 with C or better
PLB	440	Photobiology	Principles underlying the effects of light on growth, development, and behavior of plants, animals, and microorganisms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better; Students who have credit in BIO 464, may not enroll in PLB 440
PLB	444	Plant Growth and Development	Molecular basis of development, role of signal transduction pathways/gene regulation in control of organ formation, pollination, germination, and growth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		Pre-requisites: BIO 353 with C or better
PLB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	492	Honors Directed Study		Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6		Pre-requisites: Must be an Honors Student
PLB	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Life Sciences	1-6	L	Pre-requisites: Must be an Honors student
PLB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-7		
PLB	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-3		
PLB	502	Perspectives in Plant Biology	Introduces major areas of research within the department with the goal of broadening knowledge to enable multidisciplinary research and communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	525	Microclimate Methods	Techniques to measure and quantify microclimate and mass transfer. Supporting principles.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	530	Introduction to Structural and Molecular Biology	Structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	4.		
PLB	540	Plant Biochemistry	Structure/function relationships of molecules, emphasizing processes unique to plants: carbon fixation, synthesis of storage products, pigments, and secondary metabolites.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	550	Plant Molecular Biology	Biochemistry and molecular biology of plant organelles, including protein targeting, plant viruses, and molecular designs for plant improvements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
PLB	552	Plant Genetic Engineering	Plant transformation, utilization of transgenic plants, transient gene expression assays, and applications of plant genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PLB	553	Plant Genetic Engineering Laboratory	Plant transformation, utilization of transgenic plants, transient gene expression assays, and applications of plant genetic engineering.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	2.		
PLB	554	Plant Biotechnology	Aseptic, clonal propagation of plants and in vitro culture of cells, organs, and tissues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	558	Molecular Mechanisms of Photosynthesis	Structure and function of photosynthetic complexes; mechanism of energy conversion in plants, bacteria, and model systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Life Sciences	3.		
PLB	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
PLB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-4		
PLB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Life Sciences	1-12		
PLB	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Liberal Arts and Sciences	School of Life Sciences	1-15		
PLB	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of Life Sciences	1.		
PLB	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Life Sciences	1-15		
PLB	300	Comparative Plant Diversity	Surveys major plant groups and other photosynthetic organisms. Emphasizes comparative data analysis, evolutionary inference, and phylogenetic methods. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.	L or SG	
PLB	308	Plant Physiology	Concepts of plant function: carbon metabolism, energy acquisition, regulation of growth and development, stress responses, and water and nutrient uptake.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLB	310	The Flora of Arizona	Overview of Arizona's flora and plant communities; emphasizes identification, classification, and natural history of the state's native vascular species. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	4.		Pre-requisites: BIO 187 (or both PLB 200 and PLB 201) with C or better; BIO 188 with C or better
PLC	101	Elementary Polish	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		

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PLC	102	Elementary Polish	Structural grammar, basic vocabulary; introduction and reinforcement of aural/oral, reading, and writing skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: PLC 101 with D or better or currently enrolled
PLC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
PLC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	201	Intermediate Polish	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
PLC	202	Intermediate Polish	Systematic review of grammar. Development of vocabulary through reading and writing. Drill in aural/oral skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Pre-requisites: PLC 201 with D
PLC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	11-12		
PLC	492	Honors Directed Study		N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
PLC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
PLC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
PLC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
POR	101	Elementary Portuguese	Basic grammar with intensive drills in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
POR	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
POR	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	201	Intermediate Portuguese	Continuation of POR 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:POR 101 with a grade of C or better or currently enrolled
POR	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	313	Portuguese Composition and Conversation	Develops skill in written Portuguese and corrected oral expression. Must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: POR 201 with C or better
POR	314	Portuguese Composition and Conversation	Continuation of POR 313.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: POR 313 with C or better
POR	321	Luso-Brazilian Literature	Representative masterpieces of Portuguese and Brazilian literature from the beginning to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites: POR 313 with C or better
POR	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	472	Luso-Brazilian Civilization	Lectures, readings, and discussion of important aspects of Luso-Brazilian civilization. Topics from music, art, folklore, literature, history, and politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	Pre-requisites: POR 313 with C or better
POR	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
POR	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
POR	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		

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POR	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
POR	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
POR	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
POR	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
POR	101	Elementary Portuguese	Basic grammar with intensive drills in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.		
POR	201	Intermediate Portuguese	Continuation of POR 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency. fee	N	LEC	N	OPT	Office of the Provost	Office of the Provost	5.	G	
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	Students may not enroll for POS 110 who have received a D or better in POS 310, POL 110, or POL 310
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas. Credit is allowed for only POS 160 or 362.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	Students may not enroll in POS 160 if they have received a D or better in POL 160, POS 360, or POL 360.
POS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		Pre-requisites: Freshman status; Maximum 25 hours
POS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		Pre-requisites: Maximum 25 hours
POS	210	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	220	Political Issues and Public Policy	Contemporary social problems and political issues, particularly development of public policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	230	Current Issues in National Politics	Major issues facing national governments in the domestic field.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	L or SB	
POS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(HU or SB) & G	
POS	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(L or SB) & G	
POS	270	American Legal System	Concepts, institutions, classifications, and functions of law. Role of the courts and impact of judicial decision making on social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	300	Contemporary Global Controversies	Explores key controversies in global politics including security, economic stability, poverty, gender, race, and the environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	301	Empirical Political Inquiry	Logic of political inquiry, including research problems, concepts, hypotheses, theories, measurement, data collection, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	305	Politics and Film	Examines portrayal of political events, ethnic groups, and sociopolitical situations in film, a major medium addressing questions of human values. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110, POL 110, or POL 310
POS	311	Arizona Constitution and Government	Constitution and government of the State of Arizona. Credit is allowed for only POS 311 or 316 or 417. Meets the Arizona constitution requirement for teacher certification. May not be counted for the major or a teaching major or minor in Political Science	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	2.		
POS	313	The Congress	Lawmaking process in the U.S. Congress.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	314	The American Presidency	Office, role, and power of the American presidency in the American political system.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	315	The Supreme Court	Role of the Supreme Court in American society and politics; examines decision-making process and impact of decisions; restraint versus activism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	316	State and Local Government	Surveys the operations, problems, and policies of state and local governments in the United States. Credit is allowed for only POS 316 or 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	320	Public Administration	Role of the administrator in the political process with an examination of the basic concepts of bureaucracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	325	Public Policy Development	Examines one or more aspects of public policy development including agenda setting and policy formulation, implementation, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	330	Contemporary Controversies in Domestic Politics	Explores key controversies in domestic politics including the environment, the economy, poverty, gender, race, and security.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	331	Public Opinion	Formation, expression, and influence of individual and organized opinion on political institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	332	American Political Parties	Development of the American party system. Party organization and functions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	333	Interest Groups	Examines how minority, corporate, labor, farm, consumer, environmental, health, education and public interest groups, and single-issue movements influence government.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	336	Voters in America	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	340	History of Political Philosophy I	Western political philosophers and their theories to the 17th century.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H	
POS	341	History of Political Philosophy II	Western political philosophers and their theories from the 17th to the 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H	
POS	346	Problems of Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	351	Democratization	Examines the consolidation of democracies in postauthoritarian and postcommunist settings (e.g., Latin America, Eastern Europe, Asia).	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	

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POS	355	Russia and Successor States	Description and analysis of political institutions and practices in Russia and successor states.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	356	European Union	History and workings of EU member states, including single market, Euro, legal system, ethnonationalism, immigration, expansion, trade wars, and defense.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	357	South Asia Politics	Political culture and systems of South Asia examined through study of political writings, novels, and poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	358	Southeast Asia	Political background, governmental institutions, political dynamics, and developmental problems of Southeast Asian nations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	359	African Politics and Society	Comparative analysis of socioeconomic forces, political processes, government institutions, and political novels in Sub-Saharan Africa.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	360	World Politics	Theory and practice of statecraft as applied to selected issues, regions, or eras.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	364	National Security, Intelligence, and Terrorism	Theoretical and empirical assessment of U.S. national security policy in the post-cold war era.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	368	Ethics and Human Rights	Explores issues of ethics, morality, and human rights in the global community.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	369	War, Politics, and Society	Relationships between techniques/technology of war and political/social structures in different time periods and locations. Who commands, dies, and pays?	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	370	Law and Society	Analyzes debates among social scientists and legal theorists concerning the relationship between law and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	401	Political Statistics	Basic concepts in statistics as they facilitate the description, explanation, and prediction of social and political phenomena.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	CS	Pre-requisite: POS 301
POS	410	Governing American Cities	Reviews modern urban problems, their sources, and potential solutions, including structural and policy alternatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	417	Arizona Political System	Contemporary political problems within the context of Arizona's constitutional, political, and social frameworks. Meets the Arizona Constitution requirement for teacher certification. Credit is allowed for only POS 417 or 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	426	Elements of Public Policy	Each section may cover one of the following topics: consumer protection, natural resources, criminal justice, environmental protection, science and technology, or theories of public policy. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	431	Campaigns and Elections	Examines campaigns from a multitude of perspectives including the politician, reporter, campaign strategist, and voter.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	434	Media and Politics	Studies mass media and politics in the United States, e.g., media and elections, media and government.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	435	Women and Politics	Focuses on the uniqueness of women in modern political systems and political thought. Emphasis may vary with instructor.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & C	
POS	439	Minority Group Politics in America	Role of minority groups in American politics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & C	
POS	442	American Political Thought	Political theories and movements from the colonial period to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	
POS	443	Topics in Contemporary Political Theory	Major problems and theories in contemporary political thought.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU	

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POS	445	Asian Political Thought	Contemporary political ideas and theories in selected Asian countries, including the impact of Marxist and non-Marxist theories on revolutionary processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	451	China, Japan, and the Koreans	Comparative analysis of the political modernization experiences of China, Japan, and the two Koreas, focusing on their differing reactions to the West.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	452	China	Background of the Communist revolution, political processes, and developmental problems in China from a comparative perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	453	South America	Political institutions, process, and developmental problems of South American states examined through comparative analysis, novels, and poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	454	Mexico	Politics, economy, institutions, and cultures in Mexico in historical and contemporary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	455	Central America and the Caribbean	Governmental institutions, political processes, and developmental problems of the nation-states and dependent areas of Central America and the Caribbean.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	459	South and Southern Africa	Post-apartheid South African government and politics; South Africa and the southern African region; regional security and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	463	Inter-American Relations	Diplomatic relations among the Latin American states. Development of U.S. foreign policy toward Latin America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	465	International Organization and Law	History, practical political significance, and future of international institutions, transnational regimes, and international law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	467	International Security	Examines issues affecting the international security of states and peoples, e.g., military, economic, technological, environmental, and demographic.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	468	Comparative Asian foreign Policies	Foreign policies of the Asian states, emphasizing their security relations and movements toward regionalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	471	Constitutional Law I	Development of the U.S. Constitution as reflected in decisions of the Supreme Court; jurisdiction and organization of the federal courts; judicial review; separation of powers; federalism; the commerce clause; national taxing and spending power; state police power.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	472	Constitutional Law II	Development of the U.S. Constitution as reflected in decisions of the Supreme Court; due process; equal protection of laws; individual rights; civil liberties.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	473	Religion, Violence, and Conflict Resolution	Focuses on the ambiguous, often confounding role of religion in local and global conflict and the pursuit of peace.	N	LEC	N	GRD	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only REL 482, JUS 473 or POS 473
POS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	485	Political Economy	Problems, policies, and possibilities of various political-economic systems and the interrelationship of capitalism, socialism, and democracy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
POS	486	International Political Economy	Contending approaches to historical and contemporary issues of international political economy, including global welfare, equality, ecology, and peace.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
POS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
POS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6	L	Pre-requisites: Must be an Honors student
POS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
POS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-7	L	

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POS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
POS	501	Methods of Political Science	Problems of method and knowledge in political science, strategies of political inquiry, and issues in philosophy of social science.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Political Science student
POS	502	Philosophy of Political Inquiry	Problems of knowledge and method in political science, with attention to both empirical and evaluative analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	2-3		
POS	503	Empirical Political Inquiry	Research methods and techniques of the discipline, emphasizing empirical foundations and analytic methods employed in subfields.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: Political Science student
POS	530	American Politics	Examines major debates in the study of American political processes and institutions. Covers parties, media, elections, public opinion, interest groups, and the three branches of government.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	545	Themes in Political Thought	Examines a particular theme or problem in political thought from both a historical and contemporary perspective. May be repeated with approval of the director of graduate studies.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	550	Comparative Politics	Surveys major approaches across topical areas such as revolutions, authoritarianism, policy processes, interest groups, and electoral politics. Focus varies with instructor.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	560	International Relations	Surveys major theoretical approaches and debates in international relations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	563	Comparative Asian Security Policies	Analyzes domestic and international constraints, belief systems, and economic components in security decisions by major powers and Asian nations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
POS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		

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POS	601	Advanced Experimental Research	Introduces experimental and quasi-experimental research designs in political research, including lab techniques and topics in the analysis of variance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	602	Advanced Survey Research	Presents design and conduct of political surveys, including sampling, instrument design, scaling, and statistical and graphical analysis of survey data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	603	Polimetrics I	Introduces theory and practice of linear regression analysis. Provides skills to read, understand, and evaluate professional literature using regression analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	604	Polimetrics II	Applies quantitative techniques to research topics producing publishable papers through exposure to time-series, logit and probit, and simultaneous equations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	606	Qualitative and Textual Analysis	Method and theory for the analysis of qualitative materials, systematic approaches for case studies, content analysis, critical analysis of texts.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	635	State Politics and Public Policy	Introduces comparative state policy emphasizing policy or performance differences among the states and the reasons for these differences.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	636	Electoral Behavior	Introduces fundamental concepts of electoral behavior. Emphasizes presidential elections and examines why people vote and how their votes are determined.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	638	Law and Politics	Emphasizes research into such topics as constitutional law, women and the law, American legal system, judicial process, and judicial selection.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	651	Politics of Change and Development	Examines contending approaches to national, social, and political change.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	660	The Modern World System	Theoretically driven, historical analysis of the organization and operation of the international political economy since the 16th century.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	661	The State	Examines theories of state, state-society relations, and interstate politics emphasizing questions of sovereignty, territoriality, violence, representation, democracy, and change.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	662	International Organization	History, practical political significance, and future of international institutions, transnational regimes, and other approaches to international organization.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	664	War, Peace, and Conflict Processes	Systematic analysis of the causes of war, the preconditions for peace, and approaches to the resolution of conflict.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	665	foreign Policy Theory	Examines foreign policy theory and methods. Development and critique of research designs analyzing foreign policy processes within and among nations.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
POS	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		
POS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
POS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-15		
POS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-15		
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Students may not enroll for POS 110 who have received a D or better in POS 310, POL 110, or POL 310
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas. Credit is allowed for only POS 160 or 362.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Students may not enroll in POS 160 if they have received a D or better in POL 160, POS 360, or POL 360.
POS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		Pre-requisites: Maximum 25 hours
POS	210	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	230	Current Issues in National Politics	Major issues facing national governments in the domestic field.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	
POS	247	Introduction to Latin American Politics	General introduction to the politics and socioeconomic structures of Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(L or SB) & G	
POS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110, POL 110, or POL 310
POS	313	The Congress	Lawmaking process in the U.S. Congress.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	314	The American Presidency	Office, role, and power of the American presidency in the American political system.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	331	Public Opinion	Formation, expression, and influence of individual and organized opinion on political institutions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	336	Voters in America	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	342	Political Theory	Surveys ancient, modern, and contemporary political theorists and ideas in European and American contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	HU or SB	
POS	343	Media and Politics	Studies mass media and politics in the United States, e.g., media and elections, media and government.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	354	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	360	World Politics	Theory and practice of statecraft as applied to selected issues, regions, or eras.	N	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	361	American Foreign Policy	United States in world affairs; foreign policy since World War I. Techniques in formulating American foreign policies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	362	World Politics Theory	Theoretical examination of one or more aspects of international politics, e.g., foreign policy, negotiations, alliances, crises, wars, and international systems. Credit is allowed for only POS 362 or 160.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Credit is allowed for only POL 360, POS 160 or POL 160.
POS	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	417	Arizona Political System	Contemporary political problems within the context of Arizona's constitutional, political, and social frameworks. Meets the Arizona Constitution requirement for teacher certification. Credit is allowed for only POS 417 or 311.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	430	Race and Politics in the Americas	Studies racial politics in North, Central, and South America with a focus on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	436	Gender, Sexuality, Nation-States	Issues and problems related to the interface of gender, sexualities, nationalisms, and states in various world contexts.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POS	437	Women, Power, and Politics	The roles and treatment of women within various political contexts. Specific focus may vary with instructor.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
POS	438	Latino Politics	Examines contemporary political issues in the diverse Latino community.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
POS	440	Political Futures through Science Fiction	Examines the relationship between politics and science fiction literature and film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or HU	
POS	444	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	446	Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
POS	447	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
POS	454	Mexico	Politics, economy, institutions, and cultures in Mexico in historical and contemporary perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	456	Latin American Cities	Urban studies of Latin American world cities, e.g., Mexico City, Santiago, emphasizing integration with U.S. cities, including Los Angeles, Phoenix.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	460	Politics of Globalization	Theories and analysis of the politics of economic and technological globalization in the contemporary world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	464	Border Cities: Action Research on Globalization	Examines the effects of globalization on U.S.-Mexico border cities and towns with particular emphasis on Mexican border cities.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	470	Law and the Political Order	Investigates concepts of justice, political rights, adjudication and legislation, legal ordering, constitutional law, law as an instrument of change.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
POS	480	Global Justice	Explores questions of justice that cross national borders, including delivery of foreign aid, immigration, and military intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
POS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
POS	486	International Political Economy	Contending approaches to historical and contemporary issues of international political economy, including global welfare, equality, ecology, and peace.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
POS	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
POS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	
POS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
POS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
POS	110	Government and Politics	Major institutions of modern government and processes of individual and group political activity, with emphasis on the American experience. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 110 or 310.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Students may not enroll for POS 110 who have received a D or better in POS 310, POL 110, or POL 310
POS	150	Comparative Government	Political institutions and processes in selected foreign countries, including origins, strengths, and weaknesses of contemporary political systems and political development.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	160	Global Politics	Nature of contemporary world politics through the study of both general theoretical topics and specific geographical areas. Credit is allowed for only POS 160 or 362.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	Students may not enroll in POS 160 if they have received a D or better in POL 160, POS 360, or POL 360.
POS	210	Political Ideologies	Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	230	Current Issues in National Politics	Major issues facing national governments in the domestic field.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
POS	260	Current Issues in International Politics	Analyzes major current problems in world politics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or SB) & G	
POS	310	American National Government	Powers, functions, and agents of American political institutions. Meets the federal government requirement for teacher certification. Credit is allowed for only POS 310 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: Students may not enroll in POS 310 if they received a D or better in POS 110, POL 110, or POL 310
POS	325	Public Policy Development	Examines one or more aspects of public policy development including agenda setting and policy formulation, implementation, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	336	Voters in America	Voting behavior and the attitudes, perceptions, and activities of the citizenry in the political process.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	346	Problems of Democracy	Issues and problems in democratic theory, e.g., the nature of democracy, majority rule, representation, equality, and the value of political participation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
POS	350	Comparative Politics	Theoretical approaches and political institutions, such as parties, pressure groups, legislatures, and executives, from a cross-national perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	351	Democratization	Examines the consolidation of democracies in postauthoritarian and postcommunist settings (e.g., Latin America, Eastern Europe, Asia).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	360	World Politics	Theory and practice of statecraft as applied to selected issues, regions, or eras.	N	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
POS	364	National Security, Intelligence, and Terrorism	Theoretical and empirical assessment of U.S. national security policy in the post-cold war era.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
POS	417	Arizona Political System	Contemporary political problems within the context of Arizona's constitutional, political, and social frameworks. Meets the Arizona Constitution requirement for teacher certification. Credit is allowed for only POS 417 or 311.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	434	Media and Politics	Studies mass media and politics in the United States, e.g., media and elections, media and government.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
POS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
PPE	550	Physical Education for the Elementary School	Scope and values of physical education in elementary schools. Methods, materials, and practices in teaching for primary through upper grades. Credit is allowed for only PPE 550 or 350. fee	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	555	Physical Education in the Secondary School	Current trends and theories such as elective programs, coed classes, legal issues, contract teaching, curriculum, and administration. Credit is allowed for only PPE 555 or 355. fee	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	560	Adapted and Inclusive Physical Education	Teaching individuals with disabilities physical skills and activities. Credit is allowed for only PPE 560 or 360.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	565	Teaching Physical Activity Concepts	Teaching physical activity concepts in PE settings. Analyzes and critiques state and national physical education standards. Credit is allowed for only PPE 565 or 365.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	570	Research on Teacher Education in Physical Education	Discusses current research on teacher education across fields, with an emphasis on physical education pedagogy. Credit is allowed for only PPE 570 or 370.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	575	Coaching Methods for Youth Sports	Scope and values of coaching K-12. Methods, materials, and practice in coaching philosophy. Best practices and activities for grades K-12. Credit is allowed for only PPE 575 or 375.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	576	Research on Curriculum in Physical Education	Discusses and applies research findings on curricular models for physical education and physical activity in school settings and beyond.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	585	Research on Teaching in Physical Education	Contemporary research and theory on teaching across fields, with an emphasis on physical education pedagogy; provides a practical research experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PPE	593	Applied Project		Y	LEC	Y	CNV	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PPE	210	Teaching Fitness Activities for K-12 Students	Practical application of biomechanical, physiological, psychological, and learning principles in the analysis of skill acquisition and performance. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	215	Teaching Team Sports	Practical application of biomechanical, physiological, psychological, and learning principles in the analysis of skill acquisition and performance. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	220	Teaching Lifetime Activity K-12	Participating in and teaching sequenced activities K-12.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	225	Teaching Cooperative and Initiative Games	Participating in and teaching sequenced adventure-based activities.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	2.		
PPE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
PPE	350	Physical Education for the Elementary School	Scope and values of physical in elementary schools. Methods, materials, and practices in teaching for primary through upper grades. Credit is allowed for only PPE 350 or 550. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Students who have credit for PPE 550, may not enroll in PPE 350
PPE	355	Physical Education in the Secondary School	Current trends and theories such as elective programs, coed classes, legal issues, contract teaching, curriculum, and administration. Credit is allowed for only PPE 355 or 555. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PPE	360	Adapted and Inclusive Physical Education	Teaching individuals with disabilities physical skills and activities. Credit is allowed for only PPE 360 or 560.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	365	Teaching Physical Activity Concepts	Teaching physical activity concepts in PE settings. Analyzes and critiques state and national physical education standards.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
PPE	370	Research on Teacher Education in Physical Education	Discusses current research on teacher education across fields, with an emphasis on physical education pedagogy. Credit is allowed for only PPE 370 or 570.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	
PPE	375	Coaching Methods for Youth Sports	Scope and values of coaching K-12. Methods, materials, and practice in coaching philosophy. Best practices and activities for grades K-12. Credit is allowed for only PPE 375 or 575.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
PPE	474	Field Experience in Physical Education	Analyzes course content in an elementary/secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction and assessment. fee	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		
PPE	480	Professional Seminar for Physical Education	Methods of instruction, organization, and presentation of appropriate content in elementary and secondary physical education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PPE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
PPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
PPE	495	Research on Teaching in Physical Education	Contemporary research and theory on teaching across fields with an emphasis on physical education pedagogy; provides a practical research experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
PRM	120	Leisure and the Quality of Life	Conceptual foundations for understanding the role of leisure in the quality of life. Social, historical, psychological, cultural, economic, and political foundations of play, recreation, and leisure.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
PRM	150	Outdoor Pursuits	Theories and practical applications related to outdoor recreation pursuits. Interdisciplinary approach to wilderness issues and philosophies, culminating in an outdoor experience.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
PRM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	210	Community Services and Professions.	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Prerequisite: Parks and Recreation Management or Recreation (management concentration) student; Pre- or corequisite: PRM 120 or REC 120 with a C or better if completed
PRM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisite: REC 120 (or PRM 120) with a C or better if completed
PRM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre- or Co-requisite: PRM 120 or REC 120 with a C or better if completed
PRM	303	Program Planning	Foundations for effective program planning in varied leisure delivery systems.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: NLM 160 or PRM 120 with C or better
PRM	304	Recreation Planning and Facility Development	Surveys development and management of public, private, and commercial recreation areas and facilities with a focus on meeting program needs.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Parks & Rec Mgmt, Rec & Tourism or Nonprofit Leadership & Mgmt student; Minimum 2.50 cumulative gpa; minimum 45 hours; MAT 142 or higher; PRM 210 (or NLM 210, TDM 210 or REC 210) with C or better; ENG 102 with C or better
PRM	315	Community Recreation Systems	Explores and assesses community recreation delivery systems in the United States.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM120 (REC120) with C or better
PRM	340	Outdoor Survival	Interdisciplinary approach to outdoor survival, including attitudes, psychological stress, physiological stress, preparation, hypothermia, navigation, flora, and wildlife.	N	FLD	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PRM	360	Policy, Planning, Development of Recreation and Tourism Resources	Investigates the policy, planning, development, and management practices related to the provision of recreation and tourism opportunities.	N	FLD	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	364	Foundations of Therapeutic Recreation	Overview of therapeutic recreation and its concepts, practices, service models, and settings. Explores the provision of recreation and treatment services for individuals with disabilities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
PRM	368	Sports Management	Introduces concepts of sports management in varied leisure delivery systems.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	370	Natural Resource Recreation Planning and Management	Introduces outdoor recreation resource delivery systems; history of wilderness and outdoor recreation resources; the role of outdoor recreation in society; outdoor recreation agencies; related environmental issues.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisite: Must have completed 45 or more earned hours
PRM	380	Wilderness and Parks in America	Examines the American Conservation Movement and the relationships between the environment and recreation behavior.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB & H	
PRM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
PRM	400	Processes and Techniques in Therapeutic Recreation	In-depth analysis of theoretical and philosophical approaches to therapeutic recreation practice with emphasis on various facilitation techniques used in therapy.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have completed PRM364 or REC364 with a grade of C or greater or be currently enrolled
PRM	401	Management of Parks and Recreation Services	Basic principles of administration and their application in successful administrative situations. Analyzes administrative function, structure, and policies.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM student; must have at least 2.5 ASU cumulative GPA; 45 or more semester hours; ENG 102 and PRM 304 with C or better; MAT 142 or higher with D or better
PRM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: TDM 401 or PRM 401 or NLM 430 with C or better. Students who have credit for PRM 402, or NLM 402, may not enroll in TDM 402
PRM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre- or Co-requisite: PRM 304 or PRM 401 (or REC 462 or REC 440) with a C or better if completed
PRM	406	Program Design and Evaluation in Therapeutic Recreation	In-depth analysis of assessment, treatment planning, program implementation, documentation, and evaluation strategies employed in therapeutic recreation practice.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: PRM 364 (or REC 364) and PRM 400 (or REC 400) with C or better if completed
PRM	424	Recreation Program Management	Provides nonmajors with an in-depth look at recreation program management in a variety of settings with diverse groups.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: NLM 160 or PRM 120 (REC 120) with C or better or currently enrolled; Not open to Parks & Recreation Management, Recreation (Management concentration) or Nonprofit Leadership & Management majors.
PRM	451	Grant Writing for Human Service Professionals	How to increase grant funding: creating fundable ideas, identifying sponsors, following guidelines, writing effectively, constructing budgets, responding to reviewers.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	460	Assessment and Documentation in Therapeutic Recreation	In-depth study of the therapeutic recreation assessment process, including examination of interview techniques, assessment instruments, treatment planning, outcomes, evaluation, research, and documentation.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 364 (REC 364) and PRM 400 (REC 400) with C or better or currently enrolled
PRM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Pre-requisites: Parks and Recreation or Recreation (Management concentration) student; PRM 402 (REC 482) and PRM 403 (REC 499 Pre Internship Workshop) with C or better
PRM	470	Environmental Interpretation and Education	Introduces park interpretation and environmental education that includes theories, principles, and techniques.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 380 with C or better
PRM	475	Entrepreneurial Recreation and Tourism	Explores basic business principles and innovative processes involved in starting a small business in the commercial recreation and tourism industry.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or REC 120 with C or better
PRM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
PRM	486	Special Events Management	Principles of programming and managing special events for diverse populations.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
PRM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
PRM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PRM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
PRM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
PRM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	CS	Pre-requisites: PGS 101 with C or better; Must have completed one of the following with C or better: MAT 119, 170, 210, 242, 243, 251, 260, 261, 262, 270, 271, 272, 274, 290 or 291
PSY	290	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	4.	L or SG	Pre-requisites: ENG 101 with C or better or currently enrolled; PSY 230 or one of the following courses with a C or better or currently enrolled: ECN 221, JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisite: Must have earned C or better in PSY 290 or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	325	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PSY 290 with C or better or two of the following courses with C or better: BIO 181, 182, 187, 188, 201 or 202
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	CS	Pre-requisites: PSY 230 or one of the following courses with C or better: JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	360	Cognitive Science	Examines cognition from the varied perspectives of philosophy, linguistics, psychology, computer science (artificial intelligence), and neuroscience.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PGS 101 with C or better
PSY	390	Experimental Psychology	Continuation of concepts in PSY 290, with emphasis on multifactor designs and programmatic sequence of experiments.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	Pre-requisite- Mus have earned C or better in PSY 290 or currently enrolled
PSY	399	Supervised Research		Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-3		
PSY	437	Human Factors	Emphasizes human factors in high-technology systems. Specific topics include systems development, systems analysis techniques, displays, and controls.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.	L	Pre-requisites: PSY 290 with C or better
PSY	438	Human-Computer Interaction	Theories, methods, and findings concerning the usability of computer systems and the design of effective user interfaces.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PGS 101 with C or better
PSY	439	Training and Skill Acquisition	Theories, methods, and findings concerning the acquisition of skilled performance and the design of effective training systems.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PGS 101 with C or better
PSY	440	Industrial/Organizational Psychology	Examines personnel selection, performance assessment, job and workplace design, job satisfaction, organizational behavior, management systems, and industrial safety.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PGS 101 with C or better
PSY	448	Human Factors in Transportation	Examines human performance and human-machine design issues in aviation and ground transportation.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PGS 101 with C or better
PSY	449	Human Factors in Sport	Examines how psychological principles can be applied to enhance the performance of athletes and coaches.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		Pre-requisites: PGS 101 with C or better
PSY	477	Applied Psychology Capstone Experience	Applied psychology from a systems perspective. Requires a report based on research and/or applied work as a culminating experience.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-6		
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-4		
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-3		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	528	Sensation and Perception	Principles of sensory and perceptual processes, emphasizing research literature.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	530	Intermed Statistics	One-way and factorial designs, contrasts, post-hoc tests, probing of interactions, mixed designs, power, computer applications.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	531	Multiple Regression in Psychological Research	Multiple regression and correlation, hierarchical regression, interactions, curvilinear relationships, categorical predictors, ANOVA in regression, regression diagnostics, regression graphics.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	560	Advances in Theoretical Psychology	Covers new empirical and theoretical work in psychology with emphasis on its applicability.	N	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	561	Methods in Applied Psychology	Methods of particular value in applied settings, including usability testing, prototyping, and use of computers in data collection and analysis. May be repeated for credit up to 9 hours.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	562	Advanced Human Factors	In-depth study of the issues, methods, and findings in industrial and organizational psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	563	Advanced Industrial and Organizational Psychology	In-depth study of the issues, methods, and findings in industrial and organizational psychology.	N	LEC	N	OPT	College of Tech & Innovation	Faculty of Applied Psychology	3.		
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Faculty of Applied Psychology	1-4		
PSY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Faculty of Applied Psychology	1-12		
PSY	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		Pre-requisites: Freshman; 25 or less total earned hours
PSY	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	CS	Pre-requisites: PGS 101 with C or better; Must have completed one of the following with C or better: MAT 119, 170, 210, 242, 243, 251, 260, 261, 262, 270, 271, 272, 274, 290 or 291
PSY	231	Honors Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology for honors students. Lab includes learning to use statistical software packages.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.	CS	Pre-requisites: Barrett Honors student; MAT 119, MAT 170, MAT 242, MAT 251 or higher with C or better; PGS 101 with C or better
PSY	290	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.	L or SG	Pre-requisites: ENG 101 with C or better or currently enrolled; PSY 230 or one of the following courses with a C or better or currently enrolled: ECN 221, JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better
PSY	325	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: PSY 290 with C or better or two of the following courses with C or better: BIO 181, 182, 187, 188, 201 or 202
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	CS	Pre-requisites: PSY 230 or one of the following courses with C or better: JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	390	Experimental Psychology	Continuation of concepts in PSY 290, with emphasis on multifactor designs and programmatic sequence of experiments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	399	Supervised Research		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-3		
PSY	420	Analysis of Behavior	Research, applications, and philosophy of the analysis and control of human behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 and 320 with C or better
PSY	422	Motor Control in Special Populations	Discusses principles of motor control theories and related practical applications for certain special developmental populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: Must have completed KIN 345 with a grade of C or greater or be currently enrolled
PSY	424	Genetic Psychology	Introduces the concepts, methodologies, and findings of behavioral genetics for Psychology majors.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 with C or better
PSY	425	Biological Bases of Behavior	Critical study of physiological psychology, e.g., brain mechanisms underlying motivation, learning.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 325 with C or better
PSY	426	Neuroanatomy	Structure and function of mammalian brain, including sheep brain dissection.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.		Pre-requisites: Must have completed PSY 325 with a grade of C or greater or be currently enrolled
PSY	427	Immunoneuropsychology: Research Foundation	Mind and the immune system's mutual influence (including neuroimmunologic diseases), with an emphasis on the molecular and cellular mechanisms involved.	N	DIS	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: MIC 420, or PSY 325, or PSY 425, or BIO 467 with C or better. Students who have credit for MIC 427, may not enroll in PSY 427
PSY	434	Cognitive Psychology	Human organism as a processor of information, from perception to cognition. Abstract concepts, semantic memory, attention, and mental imagery.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 323 or PSY 324 with C or better
PSY	437	Human Factors	Emphasizes human factors in high-technology systems. Specific topics include systems development, systems analysis techniques, displays, and controls.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.	L	Pre-requisites: PSY 290 with C or better
PSY	470	Psychopharmacology	Basis of drug action at physiological and behavioral levels. Psychological and medical applications and limitations of drugs used in the treatment of mental illness.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must have completed PSY 325 AND one of the following: BIO 181, 182, 187, 188, 201, 202, ZOL 201 or ZOL 202 AND one of the following: CHM 113, 114, 115, 116, 117 or 118, with a grade of C or greater or be currently enrolled
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Psychology	1-6		Pre-requisites: Must be an Honors student
PSY	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Psychology	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-6		Pre-requisites: Must be an Honors student
PSY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-7		Pre-requisites: Must have completed PSY 290 with a grade of C or greater or be currently enrolled
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-3		
PSY	501	Supervised Teaching	Experience in and examination of perspectives on teaching undergraduate psychology.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	4.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	506	Survey of Research in Environmental Psychology	Major topics and paradigms in the study of person-environment relationships.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	512	Advanced Learning	Principles and theories of learning, emphasizing research literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	524	Advanced Physiological Psychology	Contributions of physiological processes and brain function to fundamental behavioral processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	528	Sensation and Perception	Principles of sensory and perceptual processes, emphasizing research literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	530	Intermed Statistics	One-way and factorial designs, contrasts, post-hoc tests, probing of interactions, mixed designs, power, computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	531	Multiple Regression in Psychological Research	Multiple regression and correlation, hierarchical regression, interactions, curvilinear relationships, categorical predictors, ANOVA in regression, regression diagnostics, regression graphics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	532	Analysis of Multivariate Data	Matrix algebra for multivariate procedures, component and factor analysis, canonical and discriminant analysis, classification, MANOVA, logistic regression, hierarchical linear model.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	533	Structural Equation Modeling	Path analysis; exploratory and confirmatory factor analysis; recursive and nonrecursive latent variable models; mean and covariance structures; latent growth models.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	534	Psychometric Methods	Theory and practice of psychological measurement using classical and modern test theories. Reliability assessment, test validation, test construction, test usage.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	535	Cognitive Processes	Theoretical/empirical treatment of the human organism as a processor of information, including abstraction, memory structure, problem solving, and thinking.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	536	Statistical Methods in Prevention Research	Statistical methods used in prevention research including epidemiological methods, logistic regression, program effect estimation, estimation, and mediation analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PSY	537	Longitudinal Growth Modeling	Growth modeling methodology to describe individual variation in development over time. Employs multilevel and structural equation modeling frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	538	Advanced Structural Equation Modeling	Mean and covariance structure analysis. Includes multiple-group modeling, two-level hierarchical modeling, longitudinal growth modeling, analysis with categorical outcomes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	541	Research in Cognitive Development	Theoretical and empirical issues in the study of children's knowledge and cognitive processes. Comparison of research in Piagetian and other traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	542	Social Development	Reviews and critiques major issues in the area of social development. Covers theory, research, and content.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	550	Advanced Social Psychology	Theory and research concerning interpersonal perception, decision making, attitude formation and change, group processes, social motivation, and interaction processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	551	Advanced Social Psychology	Continuation of PSY 550.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	553	Social Influence	Researches literature relevant to attitude formation and change, conformity, obedience, power, compliance, and altruism and others.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	555	Experimental and Quasi-Experimental Designs for Research	Reviews research techniques. Analyzes lab and field research; applications to specific topics.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	569	Advanced Study of Personality	Personality as a theoretical concept in psychology, including definitional problems, behavioral and traditional approaches, the measurement of personality, and current research issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	572	Psychological Assessment	Theory and research on assessment of personality, psychopathology, and intelligence; construction of psychological assessment instruments.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	573	Psychopathology	Theory and research relating to the contribution of psychological, social, physiological, and genetic factors to the development and persistence of abnormal behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	574	Psychotherapy	Detailed survey of the theoretical and empirical literature relating to verbal psychotherapy.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	576	Dynamical Systems in Psychology	Analyzes patterns of behavior change in psychological systems.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		
PSY	578	Developmental Psychopathology	Covers major theories and research related to the development of psychological disorders of childhood and adolescence.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	582	Community Psychology	Community systems, intervention techniques, consultation models, history and current status of community mental health movement, and conceptualization of the roles of community psychologists in social system intervention.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		
PSY	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-4		
PSY	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

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PSY	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	624	Clinical Neuroscience	Examines the biological underpinnings of psychological disorders at the molecular, cellular, and system levels (e.g., schizophrenia, depression, anxiety).	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Psychology	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Psychology	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
PSY	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Psychology	1-15		
PSY	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Psychology	1.		
PSY	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Psychology	1-15		
PSY	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
PSY	550	Advanced Social Psychology	Theory and research concerning interpersonal perception, decision making, attitude formation and change, group processes, social motivation, and interaction processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PSY	573	Psychopathology	Theory and research relating to the contribution of psychological, social, physiological, and genetic factors to the development and persistence of abnormal behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PSY	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
PSY	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
PSY	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
PSY	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-12		
PSY	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Dean, New Interdisciplinary Arts and Sciences	1-4		
PSY	230	Introduction to Statistics	Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: PGS 101 with C or better; Must have completed one of the following with C or better: MAT 119, 170, 210, 242, 243, 251, 260, 261, 262, 270, 271, 272, 274, 290 or 291
PSY	290	Research Methods	Planning, execution, analysis, and reporting of experiments. Literature, procedures, and instruments in representative areas of psychological research.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	4.	L or SG	Pre-requisites: ENG 101 with C or better or currently enrolled; PSY 230 or one of the following courses with a C or better or currently enrolled: ECN 221, JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	320	Learning and Motivation	Principles of conditioning and motivation; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 290 with C or better

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PSY	323	Sensation and Perception	Underlying processes of vision, audition, and the other senses. Applies current research and theory in a lab environment.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PGS 101, PSY 230 and PSY 290 with a C or better or currently enrolled
PSY	324	Memory and Cognition	Processes underlying information storage and retrieval, including different kinds of memory, forgetting, depth of processing, and control processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 290 with C or better
PSY	325	Physiological Psychology	Relationships of physiological processes to behavior. Emphasizes nervous system functioning.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY 290 with C or better or two of the following courses with C or better: BIO 181, 182, 187, 188, 201 or 202
PSY	330	Statistical Methods	Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: PSY 230 or one of the following courses with C or better: JUS 302, POS 401, QBA 221, SOC 390, SOC 395 or STP 226
PSY	369	Biology of Human Sexuality	Biology of Human Sexuality	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: PSY (PGS) 101 with C or better; completed one semester of Biology
PSY	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PSY	425	Biological Bases of Behavior	Critical study of physiological psychology, e.g., brain mechanisms underlying motivation, learning.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L	Pre-requisites: PSY 325 with C or better
PSY	470	Psychopharmacology	Basis of drug action at physiological and behavioral levels. Psychological and medical applications and limitations of drugs used in the treatment of mental illness.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: Must have completed PSY 325 AND one of the following: BIO 181, 182, 187, 188, 201, 202, ZOL 201 or ZOL 202 AND one of the following: CHM 113, 114, 115, 116, 117 or 118, with a grade of C or greater or be currently enrolled
PSY	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
PSY	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
PSY	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
PSY	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
PSY	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
PSY	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		Pre-requisite: PGS 399 with C or better
PUB	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		Pre-requisites: Freshman; maximum 25 hours
PUB	501	Introduction to Scholarly Publishing	Introduces the purpose, organization, and operation of scholarly publishing, including its history, societal role, and current issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
PUB	502	Scholarly Editing	Publishing procedures, proofreading, and manuscript editing of scholarly books, textbooks, and scholarly journals.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	503	Advanced Scholarly Editing	Advanced manuscript editing, acquisitions, developmental editing, and indexing of scholarly books, textbooks, and scholarly journals.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	510	Research in Scholarly Publishing	Individual or group research projects on issues in scholarly publishing, including legal, economic, design, technological, and related topics.	N	DIS	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	580	Practicum		Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PUB	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PUB	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PUB	592	Research		Y	LEC	Y	CNV	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		

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PUB	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUB	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	THE	N	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
PUP	100	Introduction to Environmental Design	Surveys environmental design: includes historic examples and the theoretical, social, technical, and environmental forces that shape them.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & H & G	
PUP	190	Sustainable Cities	Introduces technological, social, and cultural principles and innovations for cities under the notion of sustainability and sustainable development within the global, regional, and local contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(HU or SB) & G	
PUP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	200	Planned Environment: Cities in Cinema	Environmental, aesthetic, social, economic, political cultural, and other factors influencing global cities seen through films from around the world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU & H & G	
PUP	261	Urban Planning I	Planning communication: communication techniques for urban planning and landscape architecture communication. Credit is allowed only for PUP 261 or PLA 261.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	262	Urban Planning II	Reading the landscape: observing, experiencing, and graphically expressing the symbolic and aesthetic significance of natural landscapes.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	301	Introduction to Urban Planning	Theoretical and practical aspects of city planning. Interrelationships among physical planning, environment, government, and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	
PUP	322	Computers in Planning	Planning methods using Geographic Information Systems, database, spreadsheet, image manipulation, and desktop publishing computer software packages.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	361	Introductory Urban Planning Studio	Basic site planning and design techniques. Collection and analysis of information and basic planning research. Report writing and public presentation skills. Fee.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning student
PUP	362	Urban Planning III	Neighborhood planning: local community plan making; urban development and neighborhood improvement. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning undergraduate student; PUP 361 with C or better
PUP	363	History of Planning	Historical overview of western urban and regional planning and planning theory, focusing on the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Design Studies, Urban Planning or Housing & Urban Developmnt undergraduate student
PUP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	410	Public Participation in Planning	Theory and practice of public participation in planning. Examines and critiques participation techniques and roles of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 301 with a C or better; must be a BSP student; must co-register in PUP 432, and PUP 433
PUP	412	History of the City	The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	(L or HU) & H	Pre-requisites: Urban Planning, Design Studies, Landscape Architecture or Architectural Studies undergraduate student
PUP	420	Theory of Urban Design	Analyzes the visual and cultural aspects of urban design. Theories and techniques applied to selected study models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	HU	Pre-requisites: Urban Planning student
PUP	424	Planning Methods	Methods for urban planning research. Emphasizes research design, quantitative and qualitative methods, survey research, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning undergraduate student; PUP 301 with C or better
PUP	425	Urban Housing Analysis	Nature, dimensions, and problems of urban housing, government policy environment, and underlying economics of the housing market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following students: Urban Planning BA, Landscape Architecture BSLA, Architectural Studies BSD or Housing & Urban Developmnt BSD
PUP	430	Transportation Planning and the Environment	Overview of transportation planning from the perspective of land use planning, economic development, environmental planning, and social needs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PUP	432	Planning and Development Control Law	Case studies on police power, eminent domain, zoning, subdivision controls, exclusion, preservation, urban redevelopment, and aesthetic and design regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student
PUP	433	Zoning Ordinances, Subdivision Regulations, and Building Codes	Analyzes zoning ordinances, subdivision regulations, building codes, and other planning implementation techniques relative to local development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student
PUP	434	Urban Land Economics	Interaction between space and economic behavior. Examines the use and value of land through economic theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student
PUP	436	City Structure and Planning	Political structure and organization of government as it relates to planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student; PUP 301 with C or better
PUP	441	Economic Concepts and Environmental Planning	Overview of environmental and ecological economics and how their concepts and tools are used in dealing with environmental planning.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisite:PUP 301 with a grade of C or better
PUP	442	Environmental Planning	Environmental planning problems, including floodplains, water quality and quantity, solid and hazardous waste, air quality, landslides, and noise.	N	FLD	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning undergraduate student; PUP 301 with C or better
PUP	444	Preservation Planning	History, theory, and principles of historic preservation. Emphasizes legal framework and methods practiced.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Must be one of the following Academic Levels: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	445	Women and Environments	Examines the role women play in shaping the built environment; ways built/natural forms affect women's lives. Focuses on contemporary U.S. examples.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	C	Pre-requisites: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	452	Ethics and Theory in Planning	Ethics and theory of professional planning practice in urban and regional communities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.	L	Pre-requisites: Urban Planning undergraduate student
PUP	461	Urban Planning IV	Comprehensive planning: collection and analysis of economic, social, and environmental data relevant to urban planning; development of land-use plans. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning undergraduate student; PUP 362 with C or better
PUP	462	Advanced Urban Planning Studio	Comprehensive planning. Synthesis of complex data- and community-based analyses. Advanced report writing and public presentation skills. Fee.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		Pre-requisites: Urban Planning Seniors; PUP 361 with C or better
PUP	465	New Urbanism	History, theory, principles and practice of New Urbanism, including current critiques and counter-critiques of both movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 301 with a grade of C or better
PUP	475	Environmental Impact Assessment	Criteria and methods for compliance with environmental laws; development of skills and techniques needed to prepare environmental impact statements/assessments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban Planning undergraduate student
PUP	485	International Field Studies in Planning	Organized field study of planning in specified international locations. May be repeated for credit with school approval.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12	G	
PUP	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6		
PUP	493	Honors Thesis		N	THE	N	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-6	L	Pre-requisites: Must be an Honors student
PUP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		Pre-requisites: Junior, Senior, Post-Bacc Undergrad, Graduate or Post-Bacc Graduate including non-degree students
PUP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-7		
PUP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-3		
PUP	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
PUP	501	The Idea of Planning	Comprehensive review of planning profession within a political, governmental, multicultural, and gender framework.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	510	Citizen Participation	Theory and practice of citizen participation in planning. Examines and critiques participation techniques and roles of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Urban Planning student
PUP	515	International Planning and Development	Introduces globalization, international development, international planning practices and policies, urbanization and urban and regional planning in developing nations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	516	International City Design	Comparative exploration of the physical design and structure of international cities and the social, economic, and cultural forces shaping them.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	520	Planning Theories and Processes	Reviews past and current theoretical developments related to social change perspectives, the role and ethics of planners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	524	Planning Methods I	Methods for urban planning research. Emphasizes research design, demographic analysis, forecasting, and survey research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	525	Urban Housing Analysis	Nature, dimensions, and problems of urban housing, government policy environment, and underlying economics of the housing market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	526	Historic Preservation Planning Practice	In-depth study of practical applications of historic preservation theory and methods. Overview of the professional work of the preservation field.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Herberger Institute of Design and the Arts-graduate student
PUP	527	Preservation Planning		N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites:PUP 501 with a grade of C or better
PUP	531	Planning and Development Control Law	Case studies on police power, eminent domain, zoning, subdivision controls, exclusion, preservation, urban redevelopment, and aesthetic and design regulation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Undergraduate Postbaccalaureate student
PUP	532	Advanced Urban Planning Law	Advanced study on selected issues in planning law, such as urban design controls, exclusionary practices, compensable regulation, and tax policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	535	Water Law and Planning	In-depth study of legal materials providing substantive knowledge of water law, water management issues, and land use planning options.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	541	Economics of Environmental Planning	Application and limitations of economics in environmental planning and policy making in the United States and internationally.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	542	Environmental Administration and Planning	Environmental administration of policies and their relationship to environmental planning practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	544	Urban Land Use Planning	Theory and methods of urban land use planning, including the rational planning process, comprehensive, functional, and neighborhood plans.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	546	Urban Design Policy	Advanced study of local, state, and federal urban design policy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	547	Gender, Activism, and the Built Environment	Explores issues of gender in the built environment. Includes traditional attitudes toward gender underlying the physical form and continuing impacts.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	548	Planning for Urban Environmental Sustainability	Theory and applications connecting sustainability sciences and practice to urban environmental planning. Sustainable urban development, restoration, and preservation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	550	Transportation and the Environment	Examines transportation planning from the perspectives of land use planning, economic development, environmental planning, and social needs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	551	Sustainable Transportation Planning	Discusses the sustainability aspects of transportation planning. Emphasizes nonmotorized transportation, facilities, and public health.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	561	Urban Design Studio	Current urban form and urban landscape design problems within the Phoenix-centered region.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	562	Advanced Theory of Urban Design	Study of urban design practice and underlying social, political, and environmental issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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PUP	563	The Politics of Urban Space and Design	Advanced seminar critically examines major intellectual traditions investigating urban form, the production of urban space, and socio-spatial practices.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	572	Planning Studio I: Data Inventory and Analysis	Comprehensive planning workshop dealing with real community problems. Focuses on the data gathering and analysis steps of the planning process. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	574	Planning Studio II: Options and Implementation	Comprehensive planning workshop dealing with real community problems. Focuses on the development of options, plan making, and plan implementation. fee	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	4.		
PUP	575	Environmental Impact Assessment	Criteria and methods for compliance with environmental laws; develops skills and techniques needed to prepare environmental impact statements/assessments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	576	GIS Studio	GIS as a tool to address large, multifaceted planning problems.	N	STO	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: Graduate Liberal Arts student
PUP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisite: Urban/Environmntl Planning MUEP student
PUP	585	International Field Studies in Planning		N	FLD	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
PUP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	IND	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	IND	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		Pre-requisites: Urban and Environmental Planning graduate student
PUP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-4		
PUP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		Pre-requisites: Urban and Environmental Planning graduate student
PUP	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	622	Planning Methods II: Quantitative Planning Analysis	Methods and models used as the basic quantitative techniques of urban, regional, and environmental planning and policy analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		Pre-requisites: PUP 524 with C or better
PUP	642	Land Economics	Land use and locational impact of economic activity and the urban real property market.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		

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PUP	644	Public Sector Planning	Urban fiscal problems and public goods provision in state and local governments.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	3.		
PUP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	IND	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1-12		
PUP	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	IND	Y	Z3	Liberal Arts and Sciences	School of Geographical Sciences and Urban Planning	1.		
QBA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-3		
QBA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	221	Statistical Analysis	Methods of statistical description. Applies probability theory and statistical inference in business.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.	CS	Pre-requisites: Must have completed one of the following courses with a grade of D or greater or be currently enrolled: MAT 119, MAT 211 or MAT 271
QBA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6		
QBA	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Economics	1-6	L	Pre-requisites: Must be an Honors student
QBA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-6		
QBA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-7		
QBA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-3		
QBA	502	Managerial Decision Analysis	Fundamentals of qualitative and quantitative analysis to aid management decision making in a competitive and uncertain environment.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Economics	2-4		Pre-requisites: MBA student
QBA	508	Product and Service Innovation	Develops strategies for innovation in products and services.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Economics	3.		W.P. Carey Graduate Students only
QBA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
QBA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Graduate Students only (degree and non-degree seeking)
QBA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: Graduate Degree Seeking Students only
QBA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-4		
QBA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-12		
QBA	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-12		
QBA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		
QBA	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Economics	1-12		Pre-requisites: W.P. Carey Graduate Degree Seeking Students only
QBA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Economics	1-15		
QBA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Economics	1.		
QBA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Economics	1-15		

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RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	510	Teaching Writing in the Elementary Classroom	Develops rationale, theory, and related practices for teaching writing in K-8 classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	512	Theoretical Foundations in Language and Literacy	Introduces theoretical lenses useful in understanding issues in language and literacy education and research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	521	Assisting the Struggling Adolescent Reader	Familiarizes teachers with literacy interests, practices, methods, strategies, and resources to develop and enhance students' enjoyment of learning with texts.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	522	Literacy/Biliteracy Development	Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-English emphasis).	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	530	Research Issues in Literacy	For graduate students interested in research on major issues related to literacy instruction. Seminar activities include reviewing quantitative and qualitative methods and analyzing literacy research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	533	Literacy in Secondary BLE/ESL Settings	Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	534	Literacy in Science and Math		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	2-3		
RDG	550	Practicum Experiences in Elementary and Secondary Reading	Practicum experience utilizing assessment and instructional techniques for classroom settings. See RDG 557 for State of Arizona reading endorsement.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	556	Assessment and Procedures in Elementary and Secondary Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
RDG	557	Advanced Elementary and Secondary Reading Practicum	Advanced practicum experience utilizing specialized reading and other assessment and instruction techniques for classroom and clinic settings. Lab sections. Recommended for State of Arizona reading endorsement. May be taken concurrently with RDG 556.	N	LAB	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	565	Literature for Latina and Latino Children and Adolescents	Selects, analyzes, and utilizes literature for Hispanic and Spanish-speaking children and adolescents.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
RDG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	581	Literature-Based Reading Programs		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	596	Gender, Culture, and Literacies	Influence of gender and culture on written, oral, and post-typographical texts.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	630	Research in Literacy	For advanced graduate students interested in applied research problems, literature of literacy instruction, and major issues related to literacy research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
RDG	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RDG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre-requisite: Graduate student (degree seeking or nondegree seeking) or Postbaccalaureate Undergraduate student
RDG	634	Technoliteracies	Online course explores the nature of digital communications and expanding definitions of what counts as text and as literate expression.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		Pre-requisites: Must be Post Bac, Non Degree Graduate or Degree Graduate. Credit is allowed for only EDT 634 or RDG 634
RDG	505	Developmental Reading	For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	507	Content Area Literacy	Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	512	Theoretical Foundations in Language and Literacy	Introduces theoretical lenses useful in understanding issues in language and literacy education and research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	525	Emergent Literacy	Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3, including phonemic awareness and alphabet instruction and beginning decoding.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	531	Language and Literacy I	Instructional strategies for teaching reading using systematic, research-based phonics to aid decoding, vocabulary, comprehension development, writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	532	Language and Literacy II	Applies literacy strategies including instruction and diagnostic assessment, literacy lessons with adaptations for diverse learners, and extended classroom experiences.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	550-W	Practicum Experiences in Reading	Experience utilizing reading diagnostic and instructional techniques for classroom and clinic settings. Lab sections. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	556	Assessment and Procedures in Elementary and Secondary Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	556-W	Assessment Procedures in Reading	Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. Recommended for State of Arizona reading endorsement.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	563	Children's Literature	Selects and uses children's literature and related nonprint media to support the elementary school curriculum.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	581	Literature-Based Reading Programs		N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
RDG	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		

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RDG	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	301	Literacy and Instruction in the Content Areas	Required course for all Secondary Education candidates. Introduces theory and instructional strategies for learning from text across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
RDG	322	Language Literacy 1 in Elementary Schools	Instructional strategies for teaching reading using systematic research-based phonics to aid decoding; vocabulary; and comprehension development; writing, speaking, and listening skills.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
RDG	323	Literacy Processes in Content Areas	Principles and practices for planning subject matter units of instruction that explicitly address learning with texts across academic disciplines.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
RDG	334	Children's Literature and Elementary School Curriculum	Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	HU	
RDG	413	Language Literacy 2 in Elementary Schools	Applies literacy strategies, including instruction and diagnostic assessment, literacy lessons with adaptations for diverse learners, extended classroom experiences.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
RDG	414	Teaching Reading and Decoding	Emphasizes teaching reading as part of an integrated classroom curriculum. Includes strategies and skills for teaching decoding (phonics), vocabulary, comprehension, study skills, and content area reading.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
RDG	440	Computer Gaming, Learning, and Literacy	Examines the principles of learning underlying well-designed video and computer games. Addresses the literacies involved in such games.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
RDG	481	Reading Practicum		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
RDG	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		Pre-requisites: Admission to Professional Teacher Preparation Program
RDG	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
RDG	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
RDG	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
RDG	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		
RDG	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
RE	302	Life and Letters of Paul		Y	LEC	Y	CNV	Liberal Arts and Sciences	Department of Supply Chain Management	3.		
RE	584	Internship		Y	LEC	Y	CNV	W.P. Carey School of Business	Department of Supply Chain Management	3.		
REA	380	Real Estate Fundamentals	Real estate for the student/consumer with an emphasis on the applied aspects of each area of real estate specialization. Not open to Real Estate majors.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Finance	3.		Pre-requisites: Must have a minimum cumulative GPA of 2.00 and a minimum total earned hours of 56, OR be a non-degree seeking student or Graduate student
REA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	W.P. Carey School of Business	Department of Finance	1-12		
REA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey BS or BA student, OR Non-business students with minimum 56 earned hours and 2.5 ASU GPA OR Non-degree OR Graduate student.
REA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student

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REA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Finance	1-12		
REA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-12		
REA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Finance	1-4		Pre-requisites: W.P. Carey degree seeking Graduate student
REA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Finance	1-12		
REA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
REA	300	Real Estate Analysis	Applies economic theory and analytical techniques to real estate markets. Topics include law, finance, appraisal, market analysis, investments, development.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W.P.Carey BS or BA student, OR non-business students with minimum 56 earned hours and 2.5 ASU GPA OR Non-degree OR Graduate student.
REA	331	Real Estate Finance	Legal, market, and institutional factors related to financing proposed and existing properties. Emphasizes current financing techniques and quantitative methods. Prerequisites: FIN 300; professional program business student. In addition to individual course prerequisites, nonbusiness students must have at least a 2.50 ASU cumulative GPA, a 2.50 ASU business GPA, and 56 earned semester hours to register for any upper-division business course unless otherwise noted.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		
REA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
REA	401	Real Estate Appraisal	Factors affecting the value of real estate. Theory and practice of appraising and preparation of the appraisal report. Appraisal techniques.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W.P.Carey BS or BA student, OR Non-business students with minimum 56 earned hours and 2.5 ASU GPA OR Non-degree OR Graduate student.
REA	441	Real Estate Land Development	Neighborhood and city growth. Municipal planning and zoning. Development of residential, commercial, industrial, and special purpose properties.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W.P.Carey BS or BA student, OR Non-business students with minimum 56 earned hours and 2.5 ASU GPA and 2.5 ASU business GPA, OR Non-degree OR Graduate student.
REA	456	Real Estate Investments	Analyzes investment decisions for various property types. Cash flow and rate of return analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W.P.Carey BS or BA student, OR Non-business students with minimum 56 earned hours and 2.5 ASU GPA and 2.5 ASU business GPA, OR Non-degree OR Graduate student.
REA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Faculty of Business Administration	1-4		
REC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	501	Program Evaluation and Information Management	Develops skills in several areas, including evaluation, needs assessment, information and data collection, data management and analysis, computer applications, and report writing.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	502	Statistical and Data Analysis	Introduces descriptive and inferential methods used in community development, with an emphasis on nonprofit, tourism, and recreation sciences. Students gain experience using statistical software.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	530	Recreation and Tourism Service Management	Examines and applies organizational behavior, leadership, human resources, development, planning, and risk management to profession.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	552	Critical Issues in Recreation and Tourism	Examines critical research issues in the leisure, recreation and tourism fields.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	555	Theoretical Perspectives in Community Development	Reviews theoretical and empirical literature in community development with an emphasis on nonprofit, tourism, and recreation sciences.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	569	Advanced Tourism Studies	Advanced survey of tourism literature with an emphasis on relevant theories, concepts, and current research.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	570	Social Aspects of Outdoor Recreation Management	Analyzes the social aspects of natural resource science, policy, and management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

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REC	579	Tourism Analysis	Examines theories and methods that govern tourist behavior and their relevance to destination development, operations, and management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
REC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
REC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
REC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
REC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Community Resources and Development	1-12		
REC	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
REC	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Community Resources and Development	1.		
RED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
RED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-4		
RED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	W.P. Carey School of Business	Department of Marketing	1-12		
RED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Marketing	1-12		
RED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Marketing	1-12		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
REL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & G	Pre-requisites: Total Earned Hours must be less than or equal to 75 Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various intersector between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	205	Living and Dying	Ways that religions have understood birth, sexuality, death, and the passing of generations. Examples from traditions throughout the world. Lecture, discussion.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	210	Introduction to Judaism	Beliefs, ceremonies, festivals, and institutions of Judaism emphasizing the contemporary era. Assumes no previous knowledge about Judaism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
REL	225	African American Religion	Introduces the history and development of the African American religious tradition.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & G	
REL	260	Introduction to Islam	Examines Islamic beliefs, ceremonies, festivals, and institutions. Assumes no prior knowledge about Islam.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	270	Introduction to Christianity	Beliefs, ceremonies, festivals, and institutions of Christianity, emphasizing the contemporary era. Assumes no previous knowledge about Christianity.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
REL	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		
REL	301	Comparative Mysticism	Comparative examination of Eastern and Western mystical traditions from antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	305	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
REL	310	Western Religious Traditions	Religious traditions of Judaism, Christianity, and Islam, comparing their doctrinal, institutional, and ritual systems and social histories.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	313	Anti-Semitism in the Media	By examination and discussion of various media, explores the phenomenon of modern anti-Semitism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better
REL	314	Jewish Philosophy	The history of Jewish philosophy from its origins in the Hebrew Scriptures to postmodern expressions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102 (or 105, or 108) with a grade of C or better. Students who have credit for PHI 390 may not enroll in REL 314
REL	315	Hebrew Bible (Old Testament)	Nature, content, background, historical situation, and message of the books of the Hebrew Bible in English translation.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
REL	317	Introduction to Rabbinic Judaism	Historical analysis of the thought, literature, and institutions of rabbinic Judaism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	318	Contemporary American Jewish Identities	Analyzes the complexity and diversity of the contemporary American Jewish community in religious and secular affairs.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(HU or SB) & C	

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REL	320	American Religious Traditions	Examines the formation, development, and interaction of major American religious traditions (indigenous, African American, Asian American, and Euro-American).	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & C & H	
REL	323	African American Religion: A Biographical Approach	Examines the experiences, motivations, and contributions of a number of figures associated with African American religion.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	324	Spirituals and the Blues	Multidisciplinary exploration of the African American religious and musical response to the North American diaspora experience.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	326	Latina/o and Latin American Religions and Cultures	Surveys the formative myths, rituals, and symbols and religious expressive cultures of U.S. Latinos and Latin Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	330	Native American Religious Traditions	Presents world views and religious thought through the art, architecture, literature, music, mythology, ritual, and folklore of representative tribes in North America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & C	
REL	331	History of Native American Religious Traditions	Role of religion in Native American history, including missionization; religious adaptation; and prophetic, messianic, and religious revitalization movements.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & C & H	
REL	332	South American Indian Religions	Introduces the sacred stories, ceremonies, and beliefs of Native South American peoples in their historical contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	343	Daoism	Introduces the history, doctrines, and practices of Taoism from the mid-second century CE up to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & G & H	Pre-requisites: ENG 102 or 105 or 108 with a C or better
REL	344	Religion and Values in Japanese Life	Japanese values expressed in the life and annual cycles of the family, local and national identities, and popular culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	345	Asian Religious Traditions	Introduces the major concepts of religious beliefs, rituals, and practices in Hinduism and Buddhism.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	346	Chinese Religions	Examines the history and practices of Chinese religions with particular attention to culture, society, and history.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	350	Hinduism	Studies diverse forms of Hinduism through its institutions, literature, folklore, art, and architecture.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & G	
REL	351	Buddhism	Doctrines, practices, and institutions of the Buddhist religion, emphasizing its role in the history and culture of Asian societies.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & G	
REL	353	Folk Religions of Korea	Introduces forms of folk religions in Korea: shamanism, village rituals, ancestor-worship, fortune-telling, geomancy, and folk elements in major traditions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
REL	354	Religious Traditions of Korea	Examines major religious traditions of Korea: Buddhism; Christianity; Neo-Confucianism; indigenous practices and their development through political, cultural, and social frameworks.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites:ENG 102, or 105, or 108 with a grade of C or better or currently enrolled
REL	355	Japanese Cities and Cultures to 1800	Relations among ideas and literary, visual, and performing arts of the ancient aristocracy, medieval samurai, and early modern townspeople.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
REL	356	Buddhism in America	Examines diverse Buddhist traditions in the U.S. among Asian-American communities and converts to this religion.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with a C or better or currently enrolled
REL	357	Theravada Buddhism in South and Southeast Asia	Examines Theravada Buddhist institutions, practices, and communities in ancient and contemporary south and southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L & G	Pre-requisties:ENG 102, (or 105, or 108) with a grade of C or better
REL	365	Islamic Civilization	Global historical survey of Islamic cultures and societies up to the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	366	Islam in the Modern World	Examines the worldwide transformations of Islamic religion, cultures, and societies in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H & G	
REL	369	Women in Islam	Examines the roles women have played through Islamic history (Middle East) and the changing discourse on gender identity.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		

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REL	371	New Testament	Origins and literature of early Christian communities; historical investigations of the types of oral and written tradition in the New Testament.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	372	formation of the Christian Tradition	Origins, development, and expansion of Christianity; major themes and tensions from the New Testament world to the beginning of the Middle Ages.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	373	Women in Judaism	Studies the legal, social, and cultural status of Jewish women in various historical and contemporary societies.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	374	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	(L or HU) & H	
REL	375	Lost Scriptures, Lost Christianities	Wide diversity of early Christianity and its suppressed and lost texts, which have been found in modern times.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	376	Virgin Mary in History, Film, and Culture	Introduces formation and development of cult of the Virgin Mary; analyzes transformations of Mariology within historical, cinematic, and cultural contexts.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	Pre-requisites: ENG 102, 105 or ENG 108 with C or better. Credit is allowed for only FMS 376 or REL 376
REL	377	Religion in Russia	Examines the history of the various religious traditions of Russia and the former USSR from an interdisciplinary perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
REL	379	Religion, Nationalism, and Ethnic Conflict	Examines the role of religion in national and ethnic conflict in the contemporary world.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	380	Theology of Terror	Historical background, theological foundations, and consequences of violent Islamist movements.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
REL	382	Religion, Magic, and Science	Relationship and conflict among religion, magic, and science in the West from antiquity to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	L or HU	
REL	383	Origins, Evolution, and Creation	Examines scientific, mythic, and religious ideas relating to origins (particularly human). Place of antievolutionism and scientific creationism in American culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	384	The Bible and Archaeological Discoveries	Studies the Bible alongside the stories that architecture, pottery, metalwork, sculpture, tombs, and paintings of the ancient Near East have to tell. May be repeated for credit.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, ENG 105, or ENG 108 with C or better
REL	385	Contemporary Western Religious Thought	Introduces contemporary Jewish and Christian thought. Topics include religion and politics, problem of evil, interpretations of God, and feminist theology.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	386	America and the Holocaust	Analyzes the historical and sociopolitical factors that shaped U.S. policy decisions regarding Germany's assault on Europe's Jews.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU or SB	
REL	388	Religion, Ethics, and International Politics	Explores the religious and ethical dimensions of international politics by examining historical and contemporary ideas, movements, issues, and events.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must have a C or better in ENG 102, or ENG 105, or ENG 108, or currently enrolled
REL	390	Women and Religion	Role of women in religious traditions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	391	Historical Perspectives on Philosophy and Religion	Comprehensive investigation of central concepts in the philosophy of religion in the history of Western philosophy.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, or ENG 105, or ENG 108, with a grade of C or better, or be currently enrolled
REL	393	Religion and Sexuality	Examines what issues are involved in incorporating sexuality into religion and how/why religious traditions seek to control sexuality.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
REL	395	Religion and Psychology	Examines religious experience from various psychological viewpoints and explores the relationship between religion and psychology in theory and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, ENG 105 or ENG 108 with C or better
REL	396	Women in the Bible	Uses feminist criticism to reconstruct the remarkable women who stand in the shadow of the patriarchy in the bible.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must have a C or better in ENG 102, or ENG 105, or ENG 108, or currently enrolled

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REL	400	Approaches to Religion	Examines the intellectual history of academic study of religion through various theoretical approaches, major themes, and thinkers.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be a Religious Studies student
REL	405	Problems in Religious Studies	Selected topics in religious studies; involves students in research interests of instructor.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Religious Studies undergraduate student
REL	410	Judaism in Modern Times	Variety of expressions of Judaism and Jewishness in the modern period. Topics may include American Judaism or religious responses to the Holocaust.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	420	Religion in American Life and Thought	Influence of religion on American society, culture, and ideas; the distinctive character of religion in America.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU	
REL	427	American Religious Thought	Thought of representative American religious thinkers, e.g., Jonathon Edwards, William Ellery Channing, Horace Bushnell, and Reinhold Niebuhr.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	430	Mesoamerican Shamanic Cosmographies	Analyzes process of religious hybridization in Mesoamerica; examines symbolic interpretations of Amerindian religious practice and cosmological concepts of Mesoamerican priests.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with C or better
REL	444	Religion in Japan	Religion in Japanese history, especially the development of Japanese Buddhism, and religion in the modern transformation of Japan.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H & G	
REL	460	Studies in Islamic Religion	Issues in the interpretation and understanding of Islamic texts, history, society, culture, and rituals. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & G	
REL	461	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; Credit is allowed for only AFS 480, SGS 442 or REL 461
REL	470	Religion in the Middle Ages	Religious aspects of medieval life and thought; variety of forms of dissent, heresy, and reform movements from the 4th to 13th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	471	Reformation and Modern Christianity	Protestant Reformation to contemporary Christian movements; includes factors in the dissolution of the Medieval Christian synthesis, variety of reform movements and reformation patterns, Catholic counter-reform measures, formation of liberal theology, ecumenical movement, and the World Council of Churches.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	HU & H	
REL	480	Religion and Global Politics	Explores the nature and role of religion in international politics in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.	G	
REL	482	Religion, Violence, and Conflict Resolution	Focuses on the ambiguous, often confounding role of religion in local and global conflict and the pursuit of peace.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisite: ENG 102, 105 or 108 with C or better; Credit is allowed for only JUS 473, POS 473 or REL 482
REL	483	Religion and Science	Investigates the correlation between science and religion as an interdisciplinary study from a historical perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisite: Minimum CUM GPA of 2.00
REL	486	Holocaust on Film	Examines how motion pictures recorded actual holocaust events and have depicted them since World War II.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: ENG 102, 105 or 108 with C or better; FMS 100 with C or better. Credit is allowed for only FMS 486 or REL 486
REL	487	Religion and Film	Uses a transdisciplinary approach to explore cinematic representations of religious institutions, belief, and practice.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		Pre-requisites: Must be an Honors student
REL	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6	L	Pre-requisites: Must be an Honors student
REL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		
REL	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-6		
REL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-3		
REL	500	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	501	Research Methods in Religious Studies	Explores the major themes and methods in the study of religion, with primary focus on classical texts.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
REL	502	Research Methods in Religious Studies	Explores the major themes and methods in the study of religion, with primary focus on contemporary texts.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	581	Foundations of Ethics I	Studies primary texts of classic ethical theories and their applications to various issues in daily life and the professions. Ethical traditions include some of these frameworks: virtue ethics and natural law ethics, consequentialism and contractualism, deontology and critical communitarianism. Pays attention to the shifting nature of the relation between ethics and religion. In the applied, activity-portion of the course, students investigate real-life ethical issues and examine them from several normative perspectives.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	582	Foundations of Ethics II	Studies contemporary moral philosophy and social ethics and their applications to the pressing issues of the present age. Considers some of these sources for ethical thinking in the twentieth century and their relation to classic traditions: existential ethics, critical theory, race and gender theory, postmodern ethics, and post-Holocaust ethics. Examines the possibility of an ethic suitable for the global coexistence among secular, spiritual, and postsecular perspectives. In the applied, activity-portion of the course, students investigate real-life ethical issues with a global significance and examine them from several contemporary perspectives.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		
REL	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	585	Ethical and Spiritual Issues in Pastoral Care	Recalling the ancient Socratic, biblical, and other spiritual traditions of the cura animarum (care for and cure of the soul) and joining contemporary post/secular conversations relevant to the integration of the body-mind-spirit, this course introduces basic concepts and practices of the pastoral care ethics and spirituality. Focuses on the irreducible relations among existential (ontological), therapeutic (psychosomatic), and spiritual (religious) dimensions of care. The theoretical part of the course is inter-faith in approach, holistic in scope, and specialized in content; in the applied, activity-portion of the seminar, students investigate real-life issues in care ethics and spirituality and examine them from several perspectives studied during the semester.	N	SEM	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: AEP 501 and AEP 502 with a D or better; students who have credit for PHI 550 or REL 585, may not enroll in AEP 550
REL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		
REL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-4		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
REL	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	603	Teaching World Religions	Seminar designed to prepare participants to teach a course similar to ASU's REL 100.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: Phd or Masters student in Religious Studies
REL	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-12		
REL	720	Approaches to North American Religious History	Traces narratives and approaches to imagine and reimagine the "plot" of American religious history.	N	LEC	N	OPT	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	3.		Pre-requisites: PhD in Religious Studies student
REL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		
REL	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1.		
REL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	Historical, Philosophical & Religious Studies, Sch	1-15		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & G	Pre-requisites: Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
REL	202	Religion and Popular Culture	Explores various interectors between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
REL	300	Research, Writing, and Thinking in Religion and Applied Ethics	Theoretical and methodological tools to study world religions' beliefs, practices, and communities and their intersections with ethical perspectives on problems.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	Pre-requisites: ENG 102, 105 or 108 with C or better
REL	305	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
REL	310	Western Religious Traditions	Religious traditions of Judaism, Christianity, and Islam, comparing their doctrinal, institutional, and ritual systems and social histories.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
REL	320	American Religious Traditions	Examines the formation, development, and interaction of major American religious traditions (indigenous, African American, Asian American, and Euro-American).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or HU) & C & H	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater or be currently enrolled.
REL	345	Asian Religious Traditions	Introduces the major concepts of religious beliefs, rituals, and practices in Hinduism and Buddhism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L or HU	
REL	390	Women and Religion	Role of women in religious traditions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	401	Sacred Scriptures and Social Choices	Examines relationships among contemporary moral issues and the sacred scriptures to support choices at individual, group, and public levels.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	
REL	420	Religion in American Life and Thought	Influence of religion on American society, culture, and ideas; the distinctive character of religion in America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
REL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		Pre-requisite: Minimum CUM GPA of 2.00
REL	490	Senior Thesis	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student.	N	THE	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
REL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
REL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
REL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
REL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
REL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
REL	100	Religions of the World	Introduces the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, and others. Credit is allowed for only REL 100 or 200.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	Pre-requisite:students may not enroll in REL 100 if they have received a D or better in REL 200
REL	200	The Study of Religious Traditions	Writing-intensive course introducing analytical skills necessary for understanding religious traditions. Beliefs, practices, and communities of several religious traditions of the world. Credit is allowed for only REL 200 or 100.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & G	Pre-requisites: Students may not enroll in REL 200 if they have received a D or better in REL 100
REL	201	Religion and the Modern World	Introduces the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	

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REL	202	Religion and Popular Culture	Explores various interectors between religion and the popular media, including music, news, advertising, the visual arts, literature, performance, and film.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
REL	203	Saints and Sinners: Explorations in Sacred Biography	Comparison of the role of biography across religions to examine the process of categorizing people as saints or sinners.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & H	
REL	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(HU or SB) & G	
REL	270	Introduction to Christianity	Beliefs, ceremonies, festivals, and institutions of Christianity, emphasizing the contemporary era. Assumes no previous knowledge about Christianity.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
REL	305	Ritual, Symbol, and Myth	Ritual, symbol, and myth as types of religious expression, with examples selected from the nonliterate religions of the world.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	315	Hebrew Bible (Old Testament)	Nature, content, background, historical situation, and message of the books of the Hebrew Bible in English translation.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
REL	320	American Religious Traditions	Examines the formation, development, and interaction of major American religious traditions (indigenous, African American, Asian American, and Euro-American).	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C & H	
REL	321	Religion in America	History of religion in America with attention to issues of historiography, pluralism, gender, race, ethnicity, politics, and social reform.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & C & H	
REL	371	New Testament	Origins and literature of early Christian communities; historical investigations of the types of oral and written tradition in the New Testament.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	
REL	374	Witchcraft and Heresy in Europe	Background, origins, and development of the Inquisition; persecution of women and marginal groups.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	(L or HU) & H	
REL	381	Religion and Moral Issues	Manner in which human religiousness relates to social concerns, e.g., sexuality, the environment, bioethical issues, and violence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or HU	
REL	390	Women and Religion	Role of women in religious traditions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & G	
REL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
REL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		Pre-requisite: Minimum CUM GPA of 2.00
ROM	101	Elementary Romanian	Basic grammar with intensive drills in class and lab directed toward conversational fluency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
ROM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	201	Intermediate Romanian	Continuation of ROM 101. Intensive drill of fundamentals in class and lab directed toward conversational fluency.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
ROM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	313	Romanian Composition and Conversation	Develops skills in written Romanian and correct oral expression. Must be taken in sequence with ROM 314.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: ROM 201
ROM	314	Romanian Composition and Conversation	Continuation of ROM 313. Develops skills in written Romanian and correct oral expression. Must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: ROM 313
ROM	411	Advanced Spoken and Written Romanian I	Improvement of spoken and composition skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ROM 101, 201, 313, 314 with C or better
ROM	412	Advanced Spoken and Written Romanian II	Improvement of spoken and composition skills.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ROM 101, 201, 313, 314, & ROM 411 with C or better
ROM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
ROM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
ROM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	REC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
ROM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
ROM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RTM	120	Leisure and the Quality of Life	Conceptual foundations for understanding the role of leisure in quality of life, socially, historically, psychologically, culturally, economically, and politically.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
RTM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	210	Leisure Delivery Systems	Introduces development, management, and organization of the public, not-for-profit, and private sectors for the leisure services profession.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	301	Leadership in Recreation and Tourism	Leadership theory and strategies applied to recreation and tourism settings, emphasizing group dynamics, motivational processes, and supervisory skills.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have a GPA of 2.0 or greater
RTM	302	Recreation and Tourism for Diverse Populations	The role of recreation and tourism in serving the needs of culturally, physically, emotionally, mentally, and demographically diverse populations. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-requisites: must have a GPA of 2.0 or greater
RTM	303	Programming Recreation and Tourism Services	Foundations for effective programming of leisure services in public, not-for-profit, and private sectors. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	304	Recreation and Tourism Areas and Facilities Management	Principles of management, care, function, and maintenance of recreation and tourism areas, facilities, and resources. Field and classroom based.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	
RTM	320	Talent and Entertainment Concepts	Provides theory and skill development focused on management, marketing, finances, facilities, equipment, and operations related to coordinating entertainment elements.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisites:Completed RTM 486 or PRM 486 with a grade of D or better, or currently enrolled
RTM	321	Event Protocol, Ethics, and Etiquette	Theoretical and practical focus on the special elements of protocol, ethics, and etiquette as they apply to special events management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	322	Special Event Programming	Provides a theoretical and practical base related to planning, organization, and coordination of activity elements that comprise the special events program.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	323	Special Event On-Site Operations	Theory and practical skills focused on security, parking, traffic, waste management, transportation, communication, storage, and other operational issues.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	324	Festival Site Design	Provides both a theoretical basis and practical skills focused on how to physically design and lay out a special event.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	325	Working with Subcontractors and Vendors	Theory and skills focused on equipment rentals, food and beverage vendors, arts and crafts vendors, commercial vendors, and other subcontracted entities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	326	Sponsorship	Provides theory and practical skills focused on selling, partnership, benefit/assets, and leverage concepts of sponsorship for special events.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	327	Creative Event Revenue Production	Provides both theoretical and practical skills focused on earned income and other alternative financing for special events.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	328	Budgeting and Accounting for Special Events	Focuses on details related to budgeting, accounting, and financial controls used in special event management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	355	Team-Building Strategies	Explores the concepts and strategies for facilitating team building, self-confidence, and positive self-esteem in situations across the lifespan.	N	LEL	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	360	Policy, Planning, Development of Recreation and Tourism Resources	Investigates the policy, planning, development, and management practices related to the provision of recreation and tourism opportunities.	N	FLD	N	OPT	College of Public Programs	School of Community Resources and Development	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RTM	373	Leisure Travel and Tourism	Examines leisure travel and tourism, tourist behavior, and the effect of tourism on communities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	SB	
RTM	388	Business Practices for Special Event Management	Emphasizes personnel, strategic planning, marketing, risk management, legal issues, and professionalism in special event management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisite: Must have completed RTM486 with a grade of C or greater or be currently enrolled.
RTM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	401	Administration of Recreation and Tourism Services	Basic application of management principles to recreation and tourism services. Includes budgeting, personnel actions, legal issues, and public relations. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: RTM, PRM or TDM student; must have at least 2.50 ASU cumulative GPA; 45 or more semester hours; ENG 102 and PRM 210 or TDM 210 with C or better; MAT 142 or higher with D or better
RTM	402	Evaluation and Assessment in Recreation and Tourism	In-depth development of a program evaluation. Specification of objectives, instrument development and administration, data analysis, and reporting findings.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: PRM 304 or PRM 401 with a C or better if completed
RTM	403	Professional Development Seminar	Emphasizes current professional issues and refinement of professional philosophy and competencies that enable transition from student to professional.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must be a BS student in Recreation & Tourism Mgt
RTM	404	Marketing Recreation and Tourism	Principles of marketing and promotional strategy for recreation and tourism operations. Emphasizes case study experience with leading professionals.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	450	Leisure and Aging	Examines the factors influencing leisure among older adults, including policy issues and program service implications. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	451	Grant Writing for Human Service Professionals	How to increase grant funding: creating fundable ideas, identifying sponsors, following guidelines, writing effectively, constructing budgets, responding to reviewers.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	453	Volunteer Management in Human Service Organizations	Administration of volunteer service programs. Study and analysis of volunteer personnel process.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	454	Human Services for At-Risk Youth	Overview of policy and programs affecting at-risk youth; examines risk factors and programmatic solutions to them.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	458	International Tourism	Global examination of international tourism and its significance as a vehicle for social and economic development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
RTM	475	Entrepreneurial Recreation and Tourism	Examines the development, management, and future of for-profit ventures in recreation and tourism.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		Pre-requisites: Recreation & Tourism Mgt students
RTM	486	Special Events Management	Principles of programming and managing special events for diverse populations. Class plans, conducts, and evaluates a community special event. Involves fieldwork.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
RTM	487	Special Events Management, Advanced	Advanced principles of special event sponsorship, public relations, marketing, contracting, risk management, and financial management.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Completed RTM 486, or REC 486 or RTM 486 with C or better
RTM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
RTM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RTM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		Pre-requisites: must have a GPA of 2.0 or greater
RTM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
RTM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
RTM	580	Practicum		N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
RTM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-12		
RTM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
RUS	101	Elementary Russian	Structural grammar and basic vocabulary. Introduces and reinforces aural/oral reading and writing skills. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
RUS	102	Elementary Russian	See RUS 101. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		
RUS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Freshman standing; Maximum 25 hours
RUS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	201	Intermediate Russian	Systematic review of grammar. Develops vocabulary through reading and writing. Drill in aural/oral skills. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
RUS	202	Intermediate Russian	See RUS 201. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	
RUS	211	Basic Russian Conversation	Intensive aural/oral drill to supplement reading and grammatical skills acquired in RUS 101, 102, 201, and 202. Required of Russian majors. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
RUS	212	Basic Russian Conversation	See RUS 211. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	
RUS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	311	Russian Composition and Conversation	Develops writing ability and oral expression.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 202 with C or better
RUS	312	Russian Composition and Conversation	See RUS 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 202 with C or better
RUS	321	Foundations of Russian Literature	Literary movements, prose, poetry, and drama from early Kievan writings to 19th-century works of Pushkin, Lermontov, Gogol. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H	
RUS	322	Great Russian Writers of the 19th Century	Surveys the great age of prerevolutionary Russian prose, including works of Gogol, Turgenev, Dostoevski, Tolstoy, and Chekhov. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	323	Modern Russian Literature and the Soviet Legacy	See also SLC 323. 20th-century Russian writers: their prose, poetry, drama; problems of the writer in Soviet and post-Soviet society. Does not satisfy the CLAS language requirement for the BA degree. Open to nonmajors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
RUS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	411	Advanced Composition and Conversation I	Improves aural discrimination and self-expression in oral and written skills, emphasizing vocabulary building. Subject materials drawn from current post-Soviet-Russian publications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 312 with C or better

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RUS	412	Advanced Composition and Conversation II	See RUS 411.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: RUS 312 with C or better
RUS	417	Applied Russian Phonetics	General improvement in the student's language skills through aural/oral training in Russian phonology and an analysis of Russian orthography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	2.		Pre-requisites: RUS 102 with C or better
RUS	420	Russian Poetry	Development of Russian poetry from its beginnings to the present, including both native and emigre poets. Topics in criticism and the study of poetics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: RUS 312 with C or better
RUS	421	Pushkin	Pushkin's poetry, plays, and prose fiction, including Eugene Onegin, The Little Tragedies, Tales of Belkin, Queen of Spades and The Captain's Daughter. Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	423	Dostoyevsky	Dostoyevsky's major works of fiction, including <i>Crime and Punishment</i> and <i>Brothers Karamazov.</i> Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	424	Tolstoy	Tolstoy's major works, including War and Peace and Anna Karenina. Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	425	Chekhov	Chekhov's major works, representative short stories and major plays, including <i>The Cherry Orchard</i> and <i>Three Sisters.</i> Taught in English. Does not satisfy the Liberal Arts and Sciences language requirement for BA degree.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	
RUS	430	Russian Short Story	Detailed study of representative works of the Russian short story genre. Includes authors from both Imperial and Soviet Russia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L or HU	Pre-requisites: RUS 312 with C or better
RUS	441	Survey of Russian Culture	Interplay of artistic, social, and political forces in the development of Russian culture from the Kievan period to the present. Exclusive use of Russian language source materials.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G & H	Pre-requisites: RUS 312 with C or better
RUS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
RUS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
RUS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
RUS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
RUS	495	Russian for Heritage Speakers	Generates professional proficiency by developing advanced communicative and written competency in standard literary Russian.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
RUS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
RUS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
RUS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
RUS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SAO	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SAO	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-4		
SAO	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-4		
SAO	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-4		
SAO	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Office of the Provost	Office of the Provost	1-12		
SAO	494	International Program Courses	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-4		

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SAO	496	Study Abroad	Courses with the prefix SAO numbered 496 and 596 are reserved for Study Abroad Office study abroad and exchange programs. This is a placeholder course. Students must register for the number of credits equivalent to full-time study here at ASU. For most programs, participating undergraduate students register for 12 semester hours and graduate students register for 9 semester hours. Students participating in an SAO Study Abroad Program must register for the subtopic SAO: Study Abroad Program; participants in an SAO Exchange Program will register for the subtopic SAO: Exchange Program. Following completion of the student's international program, this course will be dropped and will be replaced by the ASU equivalencies of those courses completed on the program. In this way, actual credits and grades earned for particular courses completed on SAO programs will be recorded at ASU.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
SAO	596	Study Abroad	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-18		
SAO	598	International Program Courses	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Office of the Provost	Office of the Provost	1-4		
SBS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	200	Introduction to Social and Behavioral Sciences	Overview of the social and behavioral sciences, indicating their contributions to society and emphasizing interdisciplinary integration	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	300	Interdisciplinary Approaches to Social and Behavioral Sciences	Interdisciplinary approach to the study of social life.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	301	Cultural Diversity	Socially structured differences in historical and cross-cultural perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	(L or SB) & C	
SBS	302	Qualitative Methods	Basic methodological issues in the systematic application of qualitative analysis of human social life. Surveys range of qualitative methods used by social and behavioral scientists.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	303	Quantitative Methods	Concepts underlying design and implementation of quantitative research methods.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	304	Social Statistics I	Statistical techniques of the social and behavioral sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	
SBS	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.
SBS	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SBS	351	Population Geography	Demographic patterns. Spatial, temporal, and structural investigation of the relationship of demographic variables to cultural, economic, and environmental factors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	Pre-requisites: must have completed MAT 117, or 119, or 142, or 170, or 210 with a grade of C or greater; or be currently enrolled in one of these
SBS	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SBS	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SBS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	404	Social Statistics II: Multivariate Analysis	Analysis of variance, multiple regression, dummy variable regression, path analysis, and related topics. Computer application to problem solving.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	CS	Pre-requisites: must have completed SBS 303 and SBS 304 with a grade of C or greater.
SBS	410	Topics in Identity/Difference	Topics which focus on race/ethnic, gender, sexual or cultural identity/difference. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SBS	430	Topics in Power/Knowledge	Selected topics concerning the effects of political and social institutions on perceptions of politics and political culture. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	440	Family Studies	Theoretical frameworks for analyzing the development of family systems. Impact of social and economic conditions on family forms. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	447	Citizenship, Nationalism, and Identity	Historical and contemporary examination of citizenship as a form of belonging and fidelity, and the creation of good citizens within the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SBS	450	Topics in Local/Global	Examines links among social, political, economic changes at local, national, global levels. May be repeated for credit when topics vary.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SBS	460	Urban Studies	Studies local and global urban issues such as social geography, political economy, culture and social space, urban social diversity. May be repeated for credit when topics vary.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SBS	461	Program Evaluation and Policy Research	Examines design, data collection/analysis, and political/ethical issues in planning and evaluating social programs and policies in community organizations.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		Pre-requisites: AJS 302, COM 308, PSY 290, SBS 302 or SBS 303
SBS	480	Global Justice	Explores questions of justice that cross national borders, including delivery of foreign aid, immigration, and military intervention.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
SBS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SBS	490	Senior Thesis I	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student. First part of a six-semester-hour sequence, followed by SBS 491.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	491	Senior Thesis II	Supervised, independent, interdisciplinary research and writing on an intellectual issue or social problem chosen by the student. Second part of a six-semester-hour sequence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SBS	492	Honors Directed Study		N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SBS	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
SBS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SBS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
SBS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
SBS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SCM	300	Global Supply Operations	Resources and information to create and deliver products globally. Interfirm systems and industry supply chains. Customer, producer, and employee perspectives. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA; ACC 241 or ACC 271, CIS 105 or CIS 220 or CIS 236, and ECN 221 with a grade of C or greater.
SCM	301	Supply Chain Management	Examines the purchasing, materials, and logistics management areas. Presents techniques for acquiring, storing, processing, and moving material inventory.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		
SCM	303	Honors Global Supply Operations	Explores the principles, concepts, and tools of supply chain management, with emphasis on how these are applied in the business world.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: Must be an Honors student; ACC 241 or ACC 271, CIS 105 or CIS 236, and ECN 221 with a grade of C or better
SCM	345	Logistics Management	Logistics and supply chain activities emphasizing integration of transportation, inventory, warehousing, facility location, customer service, packaging, and materials handling.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisite: W.P. Carey Supply Chain Management BS student; Co- or Pre-requisite: SCM 300 or 303 with a grade of C or better or be currently enrolled or co-enrolled.
SCM	355	Supply Management	Management of the supply function, including organization, procedures, supplier selection, quality, inventory decisions, and price determination.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.	L	Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 300 or 303 with C or better
SCM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		
SCM	415	Business Decision Models	Introduces quantitative tools used to aid management decision making.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites:SCM 300 or SCM 303 with a grade of C or better
SCM	432	Planning and Control Systems for Supply Chain Management	Planning and control systems for product and service flows in supply chain: production planning, master scheduling, MRP, ERP, inventory management. fee	N	LAB	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 345 with C or better; Pre/Co-requisite: SCM 355

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SCM	440	Quality Management/Measurement	Quality management and measurement, relationships with suppliers and customers, quality awards, certifications, programs, tools for process improvement and cost analyses.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; Pre-requisites: SCM 300 with a grade of C or greater or be currently enrolled.
SCM	455	Research and Negotiation	Current philosophy, methods, techniques for conducting strategic and tactical supply chain research and negotiations. Includes supplier price and cost analysis.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 355 with a grade of C or greater
SCM	463	Global Supply Chain Management	Supply chain activities in international business with special emphasis on management of transportation, global sourcing, customs issues, and facility location in a global environment.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey BS or BA student; Must have completed SCM 300 with a grade of C or greater.
SCM	479	Supply Chain Strategy	Integrated supply chain strategies synthesizing supply management, production, logistics, and enterprise systems. Provides a comprehensive perspective of supply chain management. fee	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: W.P. Carey Supply Chain Management BS student; SCM 432 with a grade of C or greater
SCM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	N	LEC	N	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-6	L	Pre-requisites: Must be an Honors student
SCM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-4		Pre-requisite: SCM 300 or SCM 303
SCM	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-6		
SCM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-3		
SCM	502	Operations and Supply Management	Contemporary management issues, including environmental, project, and supply chain management; new product development; quality control; TQM.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey MBA students
SCM	511	Integrated Supply Chain Management	Management of sourcing, operations, and logistics as an integrated process.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	515	Decision Models for Supply Chain Management	Decision modeling approaches for supply chain management such as optimization, simulation, and decision analysis. Emphasizes spreadsheet-oriented approaches.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	520	Strategic Procurement	Applies the principles, philosophies, and processes of supply management to the purchasing management process on a global basis and to facilitate the continuous improvement of the purchasing management system.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	3.		Pre-requisites: SCM 502 with C or better
SCM	521	Supply Management and Negotiation	Selecting, developing, and executing appropriate sourcing strategies and processes.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	532	Supply Chain Cost and Design Issues	Strategic design and development of supply chains. Focus on cost-management tools applied to supply chain design and supplier management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	541	Logistics in the Supply Chain	Critical issues for customer perception of supply chain performance, including inventory planning, transportation, warehousing, information technology, and integrated logistics service.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	551	Operations Planning and Execution	Managing the conversion of raw materials to finished goods, including scheduling, work-in-process inventory management, and postponement/customization.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	581	Management of Technology and Innovation	Technology life cycles, technology forecasting, new product development process, innovation teams, innovation best practices.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	586	High-Technology Project Management	Project management processes for high-technology organizations, including planning, scheduling, team development, and control.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-3		
SCM	587	Project Management	Planning, scheduling, and controlling of projects in R & D, manufacturing, construction, and services. Project selection, financial considerations, and resource management.	N	LEC	N	GNA	W.P. Carey School of Business	Department of Supply Chain Management	2-4		
SCM	588	Strategic Project Management	Overview of strategic project management processes, project planning and control, project portfolio management, resource allocation, management of strategic project partners.	N	LEC	N	OPT	W.P. Carey School of Business	Department of Supply Chain Management	2-3		
SCM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SCM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		
SCM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	W.P. Carey School of Business	Department of Supply Chain Management	1-12		Pre-requisites: W.P. Carey degree seeking Graduate student
SCM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
SCM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	N	Z3	W.P. Carey School of Business	Department of Supply Chain Management	1.		
SCM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	W.P. Carey School of Business	Department of Supply Chain Management	1-15		
SCM	300	Global Supply Operations	Resources and information to create and deliver products globally. Interfirm systems and industry supply chains. Customer, producer, and employee perspectives. Fee.	N	LEC	N	OPT	W.P. Carey School of Business	Faculty of Business Administration	3.		Pre-requisites: W. P. Carey BS or BA student, OR non-business student with min 2.5 ASU cum GPA; ACC 241 or ACC 271, CIS 105 or CIS 220 or CIS 236, and ECN 221 with a grade of C or greater.
SCN	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SCN	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SCN	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SCN	480	Methods of Teaching Physics	Evaluates various approaches to the teaching of high school physics. Preparation of demonstrations and experiments. Organization of a lab. Designed for secondary school physics teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		
SCN	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SCN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SCN	530	Methods of Physics Teaching I	Inquiry approach to high school physics teaching.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SDE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
SED	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		
SED	502	Equity in Mathematics and Science Education	Introduces equity issues in science and mathematics as they relate to gender, social class, and ethnicity. Examines current research in these areas.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	2-3		
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisite: Graduate student
SED	523	Middle School Curriculum and Organization	Overview of the organization, curriculum, and philosophy of the U.S. public school system with emphasis on the middle school.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	528	Organizing and Managing the Middle/Secondary Classroom	Planning and delivering instruction; organizing and managing classrooms; making adaptations for English language learners and students with special needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	529	Dynamics of Effective Teaching	Explores and applies new research regarding learning, motivation, and retention. Has immediate application and results for classroom teachers.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	530	Introduction to Middle School Concept, Philosophy, and Curriculum	Overview of the concept, curriculum, and philosophy of the U.S. public school system with emphasis on the middle school.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	533	Middle/Secondary Instruction, Management, and Assessment	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must be a graduate student
SED	544	Creating Classroom Climates	Emphasizes classroom management and instructional strategies for establishing positive classroom climates that facilitate learning. Includes field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		

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SED	548	Teaching Geometry 5-8	Practical ideas and activities for teaching informal geometry grades 5-8, based on research on how students learn geometry.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	577	Issues and Trends in Secondary Education	Analyzes lay and professional reports; problems and issues in American secondary education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		
SED	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-4		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	711	Secondary Curriculum Development	Theories and processes of developing curriculum; evaluation of research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must have earned a C or better in SED 522 and a Y in SED 478 or SED 578

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SED	722	Improvement of Instruction in the Secondary School	Evaluates the research; issues and theories related to the improvement of instruction.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	3.		Pre-requisites: Must have earned a C or better in SED 533
SED	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Learning, Technology & Psychology in Ed T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SED	501	Introduction to Effective Instruction	Introductory course for certification program in secondary education. Emphasizes developing basic classroom management, instruction, and evaluation. Includes a field assignment of at least 120 hours.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	520	Science Methods for Early Adolescence	Examines the interrelationships between theory and practice in teaching science.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	522	Secondary School Curriculum Development	Social processes, issues, principles, patterns, and procedures in curriculum development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	527	Performance Assessment: Classroom Applications	Develops knowledge and skills of evaluating and assessing learning in middle and secondary schools. Introduces methods to assess cognitive, metacognitive, and affective domains.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	530	Introduction to Middle School Concept, Philosophy, and Curriculum	Overview of the concept, curriculum, and philosophy of the U.S. public school system with emphasis on the middle school.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	533	Middle/Secondary Instruction, Management, and Assessment	Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	544	Creating Classroom Climates	Emphasizes classroom management and instructional strategies for establishing positive classroom climates that facilitate learning. Includes field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	547	Teaching Mathematics in the Middle Grades (5-9)	Strategies and methodologies to teach mathematics in the middle grades (5-9).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	560	Teaching Mathematics with Technology	Strategies and methodologies to teach mathematics with technology, focusing mainly on the middle grades (5-9).	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	561	Teaching Science with Technology	Strategies and methodologies for effective technology-enhanced science classrooms and improved learning. Models student-driven inquiry teaching throughout the course.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	564	Middle-School Curriculum and Organization	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	576	Field Experience	Applies course content in secondary and middle school science and mathematics classrooms: observation, pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	0-3		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	577	Issues and Trends in Secondary Education	Analyzes lay and professional reports; problems and issues in American secondary education.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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SED	578	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. fee	N	PRA	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	579	Apprentice Teaching in Secondary Education	Apprentice teaching in secondary school classrooms. Must be taken four times for a total of 9 semester hours. Lab, field experience. Fee.	N	FLD	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2-3		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SED	111	Exploration of Science Teaching	General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
SED	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SED	321	Critical Issues in Secondary Education	Examines perspectives of critical issues in contemporary education and encourages students to think critically and to develop their own viewpoints.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisites: Admission to Professional Teacher Preparation Program
SED	322	Classroom Leadership in Secondary Schools	Theories and practices for managing and maintaining secondary classrooms for learning; strategies for home/school communication; and leadership roles for teachers.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	396	Field Experience I		N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	397	Field Experience II	Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	0-1		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	464	Middle-School Curr/Org	Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	478	Student Teaching in the Secondary School	Practice of teaching. Relationship of theory and practice in teaching. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	480	Special Methods of Teaching Social Studies	Interdisciplinary approaches; production and collection of materials.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	481	English Teaching Methods for Secondary Schools	Instructional, organizational, and presentation methods for English in secondary schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	482	Science Teaching Methods for Secondary Schools	Methods of instruction, organization, and assessment of science for secondary and middle grade schools.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		

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SED	493	Honors Thesis		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SED	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	SEM	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SED	496	Field Experience III	Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		Pre-requisites: Admission to Professional Teacher Preparation Program
SED	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisites: Admission to Professional Teacher Preparation Program
SEM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-3		
SEM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-4		
SEM	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	552	Electron Microscopy I	Kinematical and dynamical electron diffraction and microscopy. Defect structure and composition using STEM imaging, x-ray and electron-energy-loss spectroscopy.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	3.		If you have credit for PHY 552, or MSE 552, or NAN 552, you may not enroll in SEM 552
SEM	553	Electron Microscopy Laboratory I	Lab support for SEM 552.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	1.		
SEM	554	Electron Microscopy II	Determination of structure and composition of materials using high-resolution imaging, convergent-beam diffraction, and electron holography. Novel developments and applications.	N	LEC	N	OPT	Graduate College	Center for Solid State Science	3.		
SEM	555	Electron Microscopy Laboratory II	Lab support for SEM 554.	N	LAB	N	OPT	Graduate College	Center for Solid State Science	3.		
SEM	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
SEM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
SEM	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-4		
SEM	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Center for Solid State Science	1-12		
SEM	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		

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SEM	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Graduate College	Center for Solid State Science	1-12		
SEM	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-15		Pre-requisites: Science & Engr of Materials PhD students
SEM	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Graduate College	Center for Solid State Science	1.		
SEM	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Graduate College	Center for Solid State Science	1-15		Pre-requisites: Science & Engr of Materials PhD students
SES	100	Introduction to Exploration	Science and engineering of Earth, solar system, and space exploration. Experimental design, engineering design; teaming; the professions of science and engineering. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	CS	
SES	101	Earth, Solar System, and Universe I	Basic principles of geology and astronomy combined to examine the history of the universe, the solar system, and Earth. Both SES 101 and SES 103 must be taken together to secure SQ General Studies credit.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.	SQ	
SES	102	Earth, Solar System, and Universe II	Continuation of SES 101. Basic principles of geology and astronomy combined to examine the history of the universe, the solar system, and Earth.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		
SES	103	Earth, Solar System, and Universe Laboratory I	Studies astronomical and geological processes through observations and measurements. Requires field trips and evening telescopic observing. Both SES 101 and SES 103 must be taken together to secure SQ General Studies credit. Fee.	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3	SQ	
SES	104	Earth, Solar System, and Universe Laboratory II	Studies astronomical and geological processes and life through observations and measurements. Requires field trips and evening telescopic observing. fee	N	LAB	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
SES	111	Exploration of Science Teaching	General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1.		
SES	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-3		
SES	210	Engineering Systems and Experimental Design	Scientific and engineering design process. Defining scientific problems, generating and evaluating engineering solutions. Computer modeling, technical writing and teaming skills.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: CHM 113 or PHY 121 with D or better or currently enrolled; ENG 101, ENG 105 or ENG 107 with D or better or currently enrolled; MAT 265 or MAT 270 with D or better or currently enrolled
SES	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
SES	311	Essentials of Astrobiology: Exploration for Life in the Universe	Origin and evolution of life on Earth. Strategies to explore for life in the cosmos. Possible field trips to explore regional geological analogues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: MAT 265 or MAT 270; PHY 121 or CHM 113 or BIO 188
SES	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	1-4		
SES	410	Senior Exploration Project I	Design and development of an Earth, solar system, or space exploration project. Conceptualization, design, development, deployment, data analysis, communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: ENG 101, ENG 105 or ENG 107; SES 311
SES	411	Senior Exploration Project II	Continuation of SES 410. Development of Earth, solar system, or space exploration project. Conceptualization, design, development, deployment, data analysis, communication.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Earth and Space Exploration	3.		Pre-requisites: ENG 101, ENG 105 or ENG 107; SES 410
SET	540	Explosives Surety	Physical and chemical nature of explosives; detonation models; initiating systems; commercial, military, and improvised explosives; investigations; and counter measures.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	560	Physical Security I	Systems engineering principles and concepts to guide the design, analysis, and implementation of protection systems.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	561	Physical Security II	Scientific theory behind analysis of physical protection systems. Includes probability and statistics, data collection techniques, algorithm processing.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	570	Security System Instrumentation	Operating principles, limitations, and test procedures of security instrumentation and sensors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
SET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		

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SET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
SET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		
SGS	101	Thinking Globally: The Individual and Authority	Examines the changing notions of the individual and authority over history.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	
SGS	102	Thinking Globally: Technology and Nature in World Settings	Examines changing interactions among humans and nature, geographic systems, global demography, and environment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	G	
SGS	103	Contemporary Global Trends	Gives a grounding in patterns of international politics and global social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G	
SGS	111	Global History Since 1500	Surveys Africa, the Americas, and Eurasia; changes in communication, communities, demography, economics, environment, politics, religion, technology, warfare, and women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & H & G	Credit is allowed for only HST 101 or SGS 111
SGS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
SGS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	240	Introduction to Southeast Asia	Interdisciplinary introduction to the cultures, religions, political systems, geography, and history of Southeast Asia.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(HU or SB) & G	
SGS	294	Special Topics		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	301	Principles of Global Studies	Presents current debates about globalization and subjects these to critical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102, 105 or 108 with C or better
SGS	303	Global Trends	Analyzes the process of globalization across boundaries through the investigation of the determinants and ramifications of globalization from the vantage of modern social sciences. Students are expected to conduct and articulate independent critical analyses toward a more in-depth understanding of this social phenomena, global history, and particularly the global economy.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB	Pre-requisites: Minimum 30 hours; ENG 102 with C or better
SGS	304	Professional Global Career Development	Orients the student to working in global contexts and to thinking critically about careers in the global arena. Focuses on working in organizational settings distinctly global. Three modules: nation-state, corporations, and working international organizations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 101 and ENG 102 with a C or better
SGS	305	Research Methods	Broad introduction to social science research methodology and design, particularly the methods used to analyze global problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	L	Pre-requisites:Eng 101 (or 107) and Eng 102 (or 105 or 108) with a grade of C or better
SGS	310	Global Urban Systems	Comparative approach focuses on relationship between development of comparative urban systems and environmental impacts at local, regional, global scales.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites:SGS 101 or SGS 301 and SGS 103 or SGS 303 with C or better
SGS	311	Urbanization in China	Explores contemporary and future Chinese urbanization from economic, built form, and environmental perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102 with C or better
SGS	320	Mechanisms of Governance	One of the fundamental issues in the social sciences concerns the problematic attainment of social order, which is the principal aim of governance. Presents the five principal mechanisms purported to account for social order, and illustrates these by providing empirical examples of each; includes film clips.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		Pre-requisites: ENG 102 with C or better
SGS	341	Humanitarian Crisis and International Intervention	Focuses on political, legal, and ethical issues raised by decision about military interventions in genocide and humanitarian crisis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	343	Religion, Nationalism, and Ethnic Conflict	Examines the role of religion in national and ethnic conflict in the contemporary world.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	HU & G	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SGS	344	Facing the Past: Truth, Memory, Denial After Atrocities	The past has never been so present as it is today. Over the last two decades, the world has shown an increasing interest in uncovering the hidden and forgotten histories of state-sponsored atrocities and acknowledging the fate of victims and survivors. Studies this movement for the recovery of truth, memory, and moral responsibility includes a wide range of actors and takes a number of different forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	381	Modern Southeast Asia	Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Singapore, Brunei, Indonesia, and Philippines since 1750: imperialism, revolution, and independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	SB & G & H	
SGS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-4		
SGS	441	Religion and Global Politics	Explores the nature and role of religion in international politics in the modern period.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	G	
SGS	442	Different Voices Within Contemporary Islamic Discourse	Examines modern Muslim discourse on major contemporary issues such as Shari'a, Jihad, secularism, gender, civil rights, democracy, extremism, religious violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	454	Gender, Culture, and Development	Economic, cultural, and sociopolitical contexts for understanding women's roles related to health, family, work, education, and politics in developing countries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.	(L or SB) & G	May not enroll in SGS 454, if received credit for WST 447
SGS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-12		
SGS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		Pre-requisites: Must be an Honors student
SGS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6	L	Pre-requisites: Must be an Honors student
SGS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	3.		
SGS	497	Honors Colloquium		N	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-6		
SGS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-7		
SGS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	N	LEC	Y	Z1	Liberal Arts and Sciences	School of Government, Politics and Global Studies	1-3		
SHS	101	American Sign Language I	Basic receptive/expressive conversational skills; basic grammar and syntax rules. Orientation to deafness and deaf culture.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	102	American Sign Language II	Further development of receptive/expressive conversation skills in ASL; finger spelling. Continued exploration of deaf culture.	N	LEL	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: SHS 101 with C or better; taken within the past two years
SHS	105	Introduction to Human Communication Disorders	Introduces hearing, language, and speech problems in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SHS	201	American Sign Language III	Continued development of fluency in ASL with emphasis on more abstract concepts and the ability to narrate events.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: SHS 102 with C or better and taken within the past two years
SHS	202	American Sign Language IV	Further development of fluency in ASL with emphasis on literature, folklore, and signing narratives with multiple characters.	N	LEL	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: SHS 201 with C or better and taken within the past two years
SHS	250	Introduction to Phonetics	Introduces English phonetics with emphasis on phonetic transcription, articulation, phonology, and disorders of speech.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		Pre-requisites: Must be an Honors student

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SHS	310	Anatomical and Physiological Bases of Speech	Noncadaveric study of anatomical systems that underlie human speech and language, including respiration, phonation, articulation, and related nervous system processes.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	311	Physical and Physiological Bases of Hearing	Studies the physical characteristics of sound and of the structure and function of the human auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	350	Brain Memory and Language	Covers memory and language and their associated brain areas, and the resulting behavioral consequences of injury and disease.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	367	Language Science	Normative aspects and integration of language structure, comprehension, and production in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.	SB	
SHS	375	Speech Science	Normative aspects of speech, hearing, and language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: SHS 310; SHS 311
SHS	376	Psychoacoustics	Introduces acoustics, cochlear anatomy and physiology, and the perception of sound.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	401	Introduction to Audiology	Introduces hearing disorders and the purposes and procedures for basic clinical tests of auditory function. Credit is allowed for only SHS 401 or 501.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: SHS 311 with D or better; Students who have credit for SHS 501, may not enroll in SHS 401
SHS	402	Clinical Methods and Treatment of Communication Disorders	Principles and techniques for planning speech and language intervention, including observation experiences.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: SHS 250
SHS	431	Developmental Speech Disorders	Introduces the nature of articulation, fluency, resonance, and voice disorders in childhood.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	450	Observation	Opportunity to obtain observation experience at the ASU Speech and Hearing Center or at external sites.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	465	Speech and Language Acquisition	Speech and language development in the normal child.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.	SB	Pre-requisites: Credit is allowed for only SSH 465 or 565
SHS	470	Developmental Speech and Language Disorders	Introduces the nature of speech and language disorders in children.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	485	Acquired Speech and Language Disorders	Introduces acquired speech and language disorders across the lifespan.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: SHS 310
SHS	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		Pre-requisites: Must be an Honors student
SHS	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6	L	Pre-requisites: Must be an Honors student
SHS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	496	Aural Rehabilitation	Approaches to aural rehabilitation of children and adults. Introduces educational audiology and assistive listening devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: SHS 311, 375 and 401 with "D" or better; Students who have credit for SHS 596, may not enroll in SHS 496
SHS	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		
SHS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-7		
SHS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-3		
SHS	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		Pre-requisite: MS Communication Disorders, Doctor of Audiology, or PHD Speech and Hearing Science student
SHS	501	Introduction to Audiology	Introduces hearing disorders and the purposes and procedures for basic clinical tests of auditory function. Credit is allowed for only SHS 501 or 401.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: Students who have credit for SHS 401, may not enroll in SHS 501. SHS 311 with C or better
SHS	502	Basic Audiometry	Covers the bases, purposes, rationales, and procedures for the core clinical tests of auditory function in adults and children.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	504	Amplification I	Operation, electroacoustic measurement, selection, and prescriptive fitting of amplification devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		
SHS	505	Survival Sign Language	Facilitates effective manual and alternative methods of communication with deaf individuals in clinical settings.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	508	Pediatric Audiology	Emphasizes the principles and procedures for early identification and management of congenital and early-onset hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		

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SHS	510	Amplification II	Verification and validation of hearing aid performance, benefit, and satisfaction. Fitting considerations for pediatric and geriatric populations.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	511	Auditory Perception by the Hearing Impaired	Psychophysical methods and behavioral aspects of hearing, with an emphasis on the perceptual consequences of sensorineural hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: Doctor of Audiology or PHD Speech and Hearing Science student
SHS	512	Topics in Management of Medical Aspects of Speech-Language Pathology	Focuses on varying topics in management of medically based speech and language disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	513	Neurophysiology of the Auditory System	Focuses on the neurophysiology of the normal auditory system and on changes associated with hearing loss.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	515	Instrumentation and Calibration	Electronic instruments used to produce, modify, and measure characteristics of sound. Measurement standards and methods for calibration of audiologic equipment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	516	Auditory Evoked Potentials	Electrophysiologic assessment of the peripheral and central auditory nervous system. Lecture, lab.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	517	Balance Assessment	Clinical analysis and treatment of balance disorders and dizziness.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: Doctor of Audiology, or PHD Speech and Hearing Science student
SHS	518	Auditory Rehabilitation	Study and clinical application of assistive technology and rehabilitative services for managing the effects of hearing impairment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	519	Auditory Pathologies and Disorders	Familiarizes students with major diseases, pathologies, and disorders of the human auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	520	Auditory Pathologies/Disorders and Otoneurologic Applications	Familiarizes students with major pathologies and disorders of the human auditory system. Examines advanced otologic, neurologic, and audiologic approaches in the differential diagnosis and treatment of peripheral and central disorders of the auditory system.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	4.		Pre-requisites: Speech and Hearing Science graduate student
SHS	521	Auditory Aging	Focuses on aging and related effects on the auditory system and audition.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	522	Hearing Conservation/Instrumentation	Examines the prevention, identification, physiologic effects, and management of hearing loss due to noise exposure. Incorporates measurement standards and methods for calibration of electronic audiologic instruments used to produce, modify, and measure characteristics of sound.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: Speech and Hearing Science graduate student
SHS	523	Advanced Audiometry	Discusses assessment and intervention procedures beyond the basic audiologic test battery and for special populations. Examines relevant new audiologic tests and procedures. Prerequisites: SHS 502, 513; SHS major.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: SHS 502 and SHS 513. SHS majors only
SHS	524	Counseling in Communication Disorders	Theories of counseling emphasizing the psychological and emotional impact and management of individuals with communication disorders and their families.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2-3		
SHS	525	Audiology Practice Management	Business practice issues, quality assurance, and professional ethics for the practicing audiologist.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	545	Speech Perception by the Hearing Impaired	Focuses on the perception of speech by normal-hearing and hearing-impaired listeners.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	2.		
SHS	552	Physiological Measures of Auditory Function	Focuses on the measurement of otoacoustic emissions and acoustic immittance.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: Doctor of Audiology or PHD Speech and Hearing Science student
SHS	555	Cochlear Implants	Covers the research and clinical aspects of cochlear implantation with a focus on the principles of speech coding strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	565	Speech and Language Acquisition	Speech and language development in the normal child.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: Students who have credit for SHS 465, may not enroll in SHS 565
SHS	566	Psychology of Language	Psycholinguistic study of the production and comprehension of language across the lifespan.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	567	Neural Bases of Communication Disorders	Neuroscience and its application to matters of normal and disordered communication.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	570	Communication Disorders and Multicultural Populations	Studies racial and ethnic biases and the communication behaviors and disorders in various cultural groups.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	571	Augmentative Communication and Language Programming	Focuses on individuals across the age span who are unable or who are at risk for being unable to communicate with spoken language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: MS Communication Disorders, Doctor of Audiology, or PHD Speech and Hearing Science student
SHS	572	Language Assessment and Intervention in Infants and Toddlers	Focuses on the birth to 3-year-old population who are at risk for or who have communication and language disabilities.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	573	Language Assessment and Intervention with School-Age Populations	Focuses on later language development, linguistic demands of academic settings, assessment and intervention strategies for older children and adolescents.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	574	Management of Low-Incidence Speech Disorders	Focuses on assessment and intervention of people with voice, fluency, and craniofacial disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		

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SHS	575	Aphasia and Related Neurogenic Language Disorders	Assessment and treatment of acquired neurolinguistic impairment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	576	Neuromotor Speech Disorders	Evaluation and treatment of the dysarthrias and apraxia of speech. Emphasizes acquired adult disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: MS Communication Disorders, Doctor of Audiology, or PHD Speech and Hearing Science student
SHS	578	Disorders of Voice	Communication disorders related to dysfunction of the phonatory and resonance systems of voice production, assessment, and treatment.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	579	Feeding and Swallowing Disorders Across the Lifespan	Focuses on individuals across the age span who have feeding and/or swallowing disorders. Presents assessment and treatment strategies.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: MS Communication Disorders, Doctor of Audiology, or PHD Speech and Hearing Science student
SHS	580	Clinical Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		
SHS	581	Right Hemisphere Syndrome, Traumatic Brain Injury, and Dementia	Studies the nature, characteristics, and clinical management of cognitive and communicative impairments accompanying right hemisphere damage, TBI, and dementia.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	582	Differential Diagnosis of Communication Disorders	Procedures for assessing speech/language disorders in children and adults.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: MS Communication Disorders, Doctor of Audiology, or PHD Speech and Hearing Science student
SHS	584	Clinical Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-6		
SHS	585	Articulation and Phonology: Assessment and Intervention	Assessment and treatment of developmental articulation and phonological disorders.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	586	Language Sampling Methods in Speech-Language Pathology	Focuses on the use of language sampling and analyzes techniques to assess children's language.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	587	Language Assessment and Intervention with Preschool Populations	Focuses on preschool language disorders and assessment and intervention strategies for preschool children.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: MS Communication Disorders, Doctor of Audiology, or PHD Speech and Hearing Science student
SHS	588	Spanish Language Acquisition	Examines Spanish language acquisition in children and adults in the context of monolingual and bilingual language acquisition.	N	SEM	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		
SHS	589	Audiology Grand Rounds	Grand Rounds bridges clinical and academic knowledge through case studies, application of emerging research, and clinical workshops.	N	SEM	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	596	Aural Rehabilitation	Approaches to aural rehabilitation in children and adults. Introduces educational audiology and assistive listening devices.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: Credit is allowed for only SHS 496 or 596
SHS	597	Bilingual Speech-Language Pathology	Reviews speech and language assessment and intervention practices with bilingual populations from infants to adults.	N	DIS	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	3.		Pre-requisites: Must be a graduate student
SHS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-4		
SHS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		

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SHS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-15		
SHS	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-12		
SHS	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	Department of Speech and Hearing Science	1.		
SHS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	Department of Speech and Hearing Science	1-15		
SHS	101	American Sign Language I	Basic receptive/expressive conversational skills; basic grammar and syntax rules. Orientation to deafness and deaf culture.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		
SLC	150	Introduction to East Asian Culture	Introduces the cultures of China, Japan, and Korea.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
SLC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SLC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	201	Introduction to Linguistics	Examines the nature and diversity of world languages, linguistic structures and functions of language, language variation, pragmatics, and language acquisition.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU or SB	
SLC	202	Introduction to Literary and Cultural Theory	Interdisciplinary approaches to understanding culture and cultural production (literature and critical theory, film, visual art, and performance, among others) in different cultures and regions. Classes are taught by a primary instructor aided by several guest lecturers in their area of academic specialization.	N	DIS	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	323	Survey of Literature of the Soviet Era in Translation	Surveys main literary movements, prominent authors, most significant works of prose, poetry, and drama of the Soviet period, 1917-1991.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
SLC	385	Career Development for Language Majors	Theoretical and practical aspects of career planning and development; research focus on language-related careers.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 101 or ENG 107 with D or better; ENG 102 or ENG 108 with D or better or currently enrolled
SLC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	400	Linguistics	Introduces the analysis of language and its use in social contexts. Topics: morphology, phonology, pragmatics, semantics, syntax, and variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	SB	Pre-requisite: Junior academic level
SLC	401	Translation Theory and Practice	Translation theories and professional practices and ethics; bibliography, computer technology, and sample texts for natural and social sciences and humanities.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	415	Bilingualism and Languages in Contact	Analyzes linguistic aspects of bilingualism, e.g., pidgins and creoles, code-switching, and other contact phenomena; simultaneous/sequential bilingual language acquisition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 400 with D or better or currently enrolled
SLC	420	Foreign Literature in Translation	Not for language majors (except in Asian languages and Russian); open to language majors as a related-area course. Graduate students by permission.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & G	
SLC	421	Japanese Literature in Translation	Readings selected by theme or genre or period from various works of Japanese literature in English translation. May be repeated when topics vary. Graduate students by permission.	N	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & G	
SLC	440	Film Theory and Criticism	Examines the major positions and issues in film theory from an historical perspective. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Prerequisite(s): ENG 102, 105 or 108 with C or better; FMS 100 with C or better; Credit is allowed for only FMS 461 or SLC 440
SLC	450	Experimental Narrative	Examines texts that experiment with form, content and narrative perspective within print, film and digital media.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 200; ENG 200-level literature course, or FMS 100; FMS 200 . Students who have credit for ENG 447 or FMS 442 may not enroll in SLC 450

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SLC	461	Feminist Political Writing in Contemporary Europe	Examines the discourse of gender-politics in Central Eastern Europe before and after Soviet hegemony.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 200 with D or better or currently enrolled; ENG 101 and 102 (or 105) OR ENG 107 and 108 with C or better
SLC	472	Literature and Politics in Pre- and Post-Communist Europe	Interdisciplinary examination of the cultures of Eastern Europe from WWI to the present.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: ENG 200 with D or better or currently enrolled; ENG 101 and 102 (or 105) OR ENG 107 and 108 with C or better
SLC	476	Literature and Film in 20th-Century Eastern Europe	Evaluates literary texts and films as a massive propaganda machine of the totalitarian state.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	479	Introduction to Teaching Foreign Languages	Introduces teaching methodologies, language learning, and current best practice in teaching foreign languages in U.S. middle and high schools.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	480	Methods of Teaching Foreign Languages	Teaching foreign languages and literatures at secondary and college levels. Does not meet the Liberal Arts and Sciences General Studies requirement for humanities and fine arts. Required for admission to SED 478.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	481	Technical and Scientific Translation	Resources, practices, strategies, and lexicon for translation of professional texts in subjects such as engineering, architecture, agriculture, computer technology, electronics, and physical and biological sciences.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SLC 401 completed with D or better or currently enrolled
SLC	482	Business and Financial Translation	Resources, practices, strategies, and lexicon for translation of professional texts in subjects such as economics, finance, insurance, management, marketing, accounting, advertising, and real estate.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SLC 401 completed with D or better or currently enrolled
SLC	483	Medical and Legal Translation	Resources and strategies for translation of professional texts in subjects such as medicine, nursing, public health, criminal justice, and international law.	N	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	485	Problems of Literary Translation	Theory and practice with emphasis on application through individual translation projects. May be repeated for a total of 6 semester hours.	N	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 401 with D or better or currently enrolled
SLC	492	Honors Directed Study	Research and preparation for HON 493.	N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Honors students only
SLC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SLC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEL	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SLC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SLC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SLC	515	Second-Language Acquisition	Discusses and applies theories of second-language acquisition.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SLC 400 with D or better
SLC	525	Second-Language Acquisition Trends and Issues in Foreign Language Teaching	Advanced methods seminar, designed for experienced teachers.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SLC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SLC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SLC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLC	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLC	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLV	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	304	Computational Linguistics of Slavic Languages	Information technology and Slavic languages, including Web design, digitalized resources, information retrieval, math/statistical analysis, and PERL.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	CS	
SLV	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	440	History of Slavic Languages	Comparative evolution of East Slavic, West Slavic, and South Slavic languages from the earliest record to the standardizing of national languages in the 19th and 20th centuries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	SB	
SLV	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SLV	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SLV	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SLV	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SLV	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SLV	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SLV	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	Students may not sign up for SOC 101 who have received a D or better in SOC 301.
SOC	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	220	Sport and Society	Examines sports in American society as a source of socialization and an institution where gender, race/ethnicity, and class interact.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	241	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	264	Gender and Society	Sociological analysis of the development, nature, and consequences of gender in contemporary society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	(L or SB) & C	Pre-requisite: ENG 101 or ENG 105 or ENG 107 or ENG 111 with C or better
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
SOC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisites: Must be an Honors student
SOC	301	Principles of Sociology	Intensive and critical analysis of the concepts of sociology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	Students may not sign up for SOC 301 who have received a D or better in SOC 101.
SOC	312	Sociology of Adolescence	Cultural values and the social processes that help explain the development of the phenomenon of modern adolescence, including investigation of adolescent subcultures and cross-cultural references.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	321	Sociology of Work	Social and cultural analysis of industry. Occupational roles, status, and social participation of workers.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	324	Work and the Workplace	Historical and comparative examination of changes in the structure and meaning of work and current shifts in people's work lives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & H	
SOC	331	Environmental Sociology	Analyzes human organizational responses to population growth, technological change, and environmental stressors on both a national and global scale.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	332	The Modern City	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	333	Population	Global trends in population growth, composition, and distribution; theories, policies, and impact of population trends on environmental quality and development.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	334	Technology and Society	Development of technology in relation to society, work, science, the environment, public health, and cultural values related to social change.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	340	The Sociology of Deviance	Sociological analysis of stigmatized behaviors and conditions, including the causes, effects, and management of stigma.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G & H	
SOC	360	Sociological Psychology	Interaction patterns between the sociocultural order and individuals; socialization process; norms, roles, and statuses; collective behavior.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	363	Men and Masculinity	Sociological analysis of how masculine identity is defined, negotiated, and variously constructed depending upon class, ethnicity, age, and sexual orientation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	365	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	375	Contemporary American Jewish Identities	Analyzes the complexity and diversity of the contemporary American Jewish community in religious and secular affairs.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	(HU or SB) & C	
SOC	390	Social Statistics I	Descriptive and inferential statistical methods for analysis of social data. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	CS	
SOC	391	Research Methods	Methods of social science research, including the fundamental assumptions underlying research, critique, research design, data collection, and data analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	Prerequisites: SOC 101 (or SOC 301 or CDE 232) and SOC 390. Credit is allowed for only FAS 361 or SOC 391
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	415	The Family	Family considered from the institutional viewpoint; its historical development and its adaptation to a changing culture; the family system in many cultures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	416	Marriage Problems in Contemporary Society	Marital and family problems in today's society from the viewpoint of personal and cultural adjustment.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	
SOC	417	Family Violence	Current research and theories about domestic violence including child maltreatment, spousal aggression, and courtship violence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	418	Aging and the Life Course	Examines aging as a process of change and adaptation over the lifespan, patterned by social, cultural, and historical forces.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & H	
SOC	420	Sociology of Religion	Interrelationship of culture, society, and religion; religion and social stratification; religious, economic, and political institutions; social change and religion. Emphasizes American society and institutions.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	L or SB	

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SOC	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	424	Women and Health	Women as healthcare workers and issues of health, illness, and healthcare for women.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	426	Social Inequality	Examines stability and change in social inequality based on age, class, ethnicity, gender, and race.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	427	Sociology of Health and Illness	Social aspects of illness and sociological analysis of the healthcare system and its practitioners.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	429	Sociology of Law	Examines law as an institution; its origins, operations, and consequences. Emphasizes contemporary legal issues and problems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	433	Applied Demography	Science of population analysis. Covers techniques for measuring fertility, mortality, migration, and population composition.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	446	Sociology of Crime	Process of criminalization, exploring the behavior of the definers of crime, and the behavior of those defined as criminals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	448	Epidemics and Society	How epidemics occur; how they are perceived in society; how epidemics affect society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	451	Comparative Sociology	Cross-cultural study of basic social institutions; the methodology of cross-cultural research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & G	
SOC	474	African Americans in Modern Society	Social and cultural heritage of black Americans; achievements and current trends.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB & C	
SOC	483	History of Social Thought	Social thought in human culture. Background of modern sociology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	
SOC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	486	Contemporary Theory	Contemporary issues and crises in social theory with major focus on particular theorists. Ideological factors in theory, philosophical issues, the nature of theory and its relationship with methodology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	492	Honors Directed Study		N	THE	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		Pre-requisites: Must be an Honors student
SOC	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6	L	Pre-requisites: Must be an Honors student
SOC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		
SOC	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-6		
SOC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-7		
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-3		
SOC	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	501	Practicum in Survey Research	Research practicum in survey fieldwork, analysis, and reporting in the Phoenix Area Study.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	502	Practicum in Survey Research	Continuation of SOC 501.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	503	Academic Professional Development	Becoming and working as an academic, including how to write a vita, choose a thesis topic, or find dissertation data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	504	Sociology as a Profession II	Becoming and working as a sociologist, including how to write a vita, choose a thesis topic, or find dissertation data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	505	Applied Regression Analysis	Multiple linear regression topics relevant to sociological data analysis. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	507	Social Statistics IIA: Categorical Data Analysis	Logistic regression and related topics relevant to categorical data analysis in sociology. Computer applications.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	508	Social Statistics IIB: Structural Equation Analysis	Structural equation models using LISREL and other computer packages. Topics include multiple group analyses and ordinal endogenous variable models.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	509	Social Statistics IIC: Event History Analysis	Proportional hazards models and other methods for analyzing longitudinal data and establishing hazard rates of events for exploratory variables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	512	Secondary Data Analysis	Works with existing data to produce a publishable article.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	515	Studies of the Family	Current developments in the study of marriage and the family.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	516	Family Demography	Current developments in the study of family demography.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	519	Graduate Medical Sociology	Current developments in medical sociology.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	523	Social Stratification	Overviews significant themes, issues, and bodies of work in the field of social stratification, a fundamental topic of sociological inquiry.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	533	Demographic Methods	Emphasizes methods and techniques in demographic analyses such as life tables.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		
SOC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	585	Sociological Theory	Analyzes major sociological theories, from classical to contemporary.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	588	Methodological Issues in Sociology	Basic methodological issues in the study of human social life. Emphasizes a limited number of key issues and approaches to research.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	3.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-4		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		
SOC	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-12		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Social/Family Dynamics T	1.		Pre-requisites: Must be a Graduate student (Non-degree or degree seeking)
SOC	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of Social/Family Dynamics T	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Students may not sign up for SOC 101 who have received a D or better in SOC 301.
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	210	Sociology of Murder	Sociological perspectives on various forms of murder and types of murderers. Also considers forms of punishment for murder.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	241	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOC	270	Racial and Ethnic Relations	Problems of minorities in heterogeneous societies. Evaluates theories of prejudice and research dealing with discrimination, desegregation, and assimilation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SOC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	301	Principles of Sociology	Intensive and critical analysis of the concepts of sociology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Students may not sign up for SOC 301 who have received a D or better in SOC 101.
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	324	Work and the Workplace	Historical and comparative examination of changes in the structure and meaning of work and current shifts in people's work lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	
SOC	328	Migration	Introduces the definition and analysis of migration in all forms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	332	The Modern City	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	339	Grassroots Social Movements	Explores how groups mobilize collectively to produce social, political, economic, and cultural change, with an emphasis on the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisite: must have completed ENG 101 or 105 with a grade of C or greater.
SOC	340	The Sociology of Deviance	Sociological analysis of stigmatized behaviors and conditions, including the causes, effects, and management of stigma.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	341-W	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	L or SB	
SOC	342	Mexico-U.S. Borderlands	Contemporary examination of socioeconomic and political dimensions of border communities, and formation of Mexican-origin communities within and outside the Southwest.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & C	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G & H	
SOC	353	Death and Dying in Cross-Cultural Perspective	Humanistic and scientific study of aging, sickness, dying, death, funerals, and grief and their philosophy and ecology in non-Western and Western cultures.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3-4	(HU or SB) & G	
SOC	356	Central American Studies	Part of the summer ASU study abroad Costa Rica Program, which is a language and social sciences immersion program in the capital city, San Jose. A summer offering permits students to enroll in the program without conflicting with full course loads during the fall or spring semester. However, the course is proposed as a stand-alone course that can be offered in a regular semester as well. May be repeated once for credit.	N	DIS	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	360	Sociological Psychology	Interaction patterns between the sociocultural order and individuals; socialization process; norms, roles, and statuses; collective behavior.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	364	Popular Culture	Studies the social approaches to popular culture, focusing on the function of various forms (literature, film, theatre, and music).	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	365	Sociology of Mass Communication	Sociological exploration of the major mass media as a communicative process in American society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	366	Film and Society	Studies the social approaches to film as an art form, mass medium, and ideological construct.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SOC	374	Cultures and Politics of the Internet	Explores the culture and politics of the Internet in global perspective, including virtual communities, free software, copyleft, blogs, and hacktivism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	389	Ethnographic Field Lab	Hands-on, guided ethnographic qualitative research and interpretative analysis. May be repeated for credit when topics vary. Fieldwork practicum.	N	LAB	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	400	Perspectives on Aging	Broad overview of gerontological issues; e.g., physical aging, retirement, living options, caregiving, theoretical background, death.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	418	Aging and the Life Course	Examines aging as a process of change and adaptation over the lifespan, patterned by social, cultural, and historical forces.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & H	
SOC	419	Organizations and Technological Change	Explores the increasing impact of information technology on corporate, governmental, and private organizations. May involve fieldwork.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	G	
SOC	426	Social Inequality	Examines stability and change in social inequality based on age, class, ethnicity, gender, and race.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	
SOC	443	Sociology of Corporations	Examines corporations as social institutions and the implications of their status as a legal person on politics, culture, and economy.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	445	Globalization, Development, and Resistance	Explores the interconnections among globalization, development, and grassroots movements for social change in Africa, Asia, and Latin America.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	

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SOC	456	Political Sociology	Social factors associated with voting; nature and structure of the electorate and political parties and the nature of national and international power structure.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.		
SOC	457	Global Social Movements	Examines how groups mobilize across borders to pursue social goals, including equality, justice, peace, and salvation in a global context.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB & G	
SOC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	486	Contemporary Theory	Contemporary issues and crises in social theory with major focus on particular theorists. Ideological factors in theory, philosophical issues, the nature of theory and its relationship with methodology.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	3.	SB	Pre-requisites: Must have taken SOC 101 or 301 with a grade of D or greater; or be currently enrolled in SOC 101 or 301
SOC	492	Honors Directed Study		N	THE	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6		Pre-requisites: Must be an Honors student
SOC	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-6	L	Pre-requisites: Must be an Honors student
SOC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	RSC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	SEM	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-7		
SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-3		
SOC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-12		
SOC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Social and Behavioral Sciences - W	1-4		
SOC	101	Introductory Sociology	Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Students may not sign up for SOC 101 who have received a D or better in SOC 301.
SOC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SOC	241	Modern Social Problems	Race relations, poverty, unemployment, and other current issues.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	315	Courtship and Marriage	Overview of courtship, marriage, and related processes, focusing on problematic aspects of these institutions from the sociological perspective.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
SOC	332	The Modern City	Growth, characteristics, and problems of the modern city.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
SOC	352	Social Change	Patterns of social change, resistance to change, and change-producing agencies and processes.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G & H	
SOC	390	Social Statistics I	Descriptive and inferential statistical methods for analysis of social data. Computer applications.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	
SOC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SOC	420	Sociology of Religion	Interrelationship of culture, society, and religion; religion and social stratification; religious, economic, and political institutions; social change and religion. Emphasizes American society and institutions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L or SB	
SOC	421	Education and Society	Uses contemporary sociological perspectives to examine effects of schools and schooling on individuals and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	

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SOC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
SOS	100	Introduction to Sustainability	Introduces basic concepts, global trends, and local responses, philosophical, ethical, and cultural dimensions.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	110	Sustainable World	Lays the groundwork for understanding the fundamental geological, biological, and social processes that gave rise to the world we live in and continue to maintain its viability for human life.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	111	Sustainable Cities	Introduces technological, social, and cultural principles and innovations for cities under the notion of sustainability and sustainable development within the global, regional, and local contexts.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.	(HU or SB) & G	
SOS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	320	Society and Sustainability	Establishes an understanding of the human, social, and cultural dimensions of sustainability from multi- and interdisciplinary perspectives and at a variety of spatial and temporal scales.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.	L or SB	Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	321	Policy and Governance in Sustainable Systems	Explores the wide array of political questions that are raised when we view the Earth's environment as an integrated, global system.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	322	International Development and Sustainability	Historical roots of the idea of development; economic theories of growth and their implications for sustainability; interrelationship among population growth, food security, poverty, inequality, urbanization, technological change, international trade, and environmental change at local, regional and global scale.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	323	Sustainable Urban Dynamics	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	324	Sustainable Energy, Materials, and Technology	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better
SOS	325	The Economics of Sustainability	Applies economic principles to the allocation of environmental goods and services, external environmental effects, and environmental public goods; decision-making under uncertainty, adaptation to and mitigation of environmental change.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:Completed SOS 110, and SOS 111 (or PUP 190), with a grade of C or better,
SOS	326	Sustainable Ecosystems	How human activities and management practices alter biodiversity, ecosystem functioning, and the provisioning of ecosystem services; use of economic and other social science perspectives to estimate the value of ecosystem services; evaluation of options for achieving the sustainable flow of services from ecosystems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites: SOS 110 and SOS 111 (or PUP 190) with C or better
SOS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		Pre-requisites: SOS 110, and SOS 111 (or PUP 190), with C or better
SOS	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	School of Sustainability	School of Sustainability	3.	SB	Pre-requisites: Students who have credit for ASM 414, or SSH 414, may not enroll in SOS 414. Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
SOS	424	Dynamic Modeling in Social and Ecological Systems	Introduces the development and use of dynamic mathematical models to study social and ecological phenomena.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	4.		Pre-requisites: MAT 210, MAT 251, MAT 265 or MAT 270 with C or better; Students who have credit in BIO 424 or ASM 424, may not enroll in SOS 424
SOS	430	Sustainable Economic Development and Social Transformation	A clustered learning network on the application of sustainability principles to the evaluation of economic development strategies at the national, regional, and local levels, using case studies. May be repeated once for credit.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	431	Resilience and Sustainability	A clustered learning network on the application of resilience analysis to the evaluation and management of the sustainability of coupled social-ecological systems using case studies. May be repeated once for credit.	N	SEM	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	433	Sustainable Water Use	A clustered learning network on the problem of water scarce regions, includes insights from hydrology, engineering, biology, economics and public policy. May be repeated once for credit.	N	SEM	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	School of Sustainability	School of Sustainability	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SOS	492	Honors Directed Study		Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-6		
SOS	493	Honors Thesis		N	LEC	N	Z1	School of Sustainability	School of Sustainability	1-6	L	Pre-requisites: Must be an Honors student
SOS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		Pre-requisites: SOS 110, and SOS 111 (or PUP 190), with C or better
SOS	499	Individualized Instruction		Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-3		
SOS	510	Perspectives on Sustainability	University-wide course covering basic perspectives on sustainability. Uses case studies; faculty and students from engineering, architecture, social sciences, and natural sciences exchange ideas on the major challenges faced in forming a sustainable future at the local, national, and global levels.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	511	Quantitative Methods in Sustainability	Provides a sense of when, where, and how quantitative methods are used in studying questions related to sustainability; a road map for furthering quantitative skill sets; and opportunities to refresh and build some basic mathematical skills from selected topics in differential and integral calculus, linear algebra, and probability and statistics that will be required for further study.	N	LEL	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	512	Sustainable Resource Allocation	Microeconomic principles of resource allocation applied to environmental goods and services, external environmental effects and environmental public goods; decision making under uncertainty, adaptation to and mitigation of environmental change.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	513	Science for Sustainability	Carbon cycle, nutrient cycles, carbon and nutrients in the oceans, climate change, oxygen and ozone, solid waste pollution, urban air pollution.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	3.		
SOS	514	Human Dimensions of Sustainability	Concepts and definitions of the human dimensions of sustainability; the role of attitudes and values in shaping sustainability goals, practices, and programs; the diversity of values and socio-cultural contexts relating to sustainability; bottom-up and top-down sustainable policy development, social data collection methodologies.	N	SEM	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	515	Industrial Ecology and Design for Sustainability	The conceptual, ethical, and practical challenges in the design, manufacture, and life cycle performance of products; environmental evaluation via materials flow analysis and life cycle assessment; global economic, environmental, cultural, and social aspects of competitive and functional product development and manufacture.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	516	Science, Technology, and Public Affairs	Explores the political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		You may not enroll in SOS 516 if you have credit in GLG 547, or PAF 547, or BIO 515
SOS	530	International Development and Sustainability	Historical roots of the idea of development; economic theories of growth and their implications for sustainability; interrelationship among population growth, food security, poverty, inequality, urbanization, technological change, international trade, and environmental change at local, regional and global scale. Credit is allowed for only SOS 530 or SOS 322.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	532	Sustainable Urban Dynamics	Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of the institution and regulatory framework on the ability of social and urban-ecological systems to be resilient and sustainable; urban design, materials, transport, planning, and regulation.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		Pre-requisites:May not enroll in SOS 532, if credit received for ASB 533
SOS	533	Sustainable Water	Hydrological, legal, political, and ecological implications of alternative water management strategies; effect of institutional and regulatory frameworks; changes in water demand and supply due to human (population growth, economic changes) and natural (drought, climate change) factors	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	534	Sustainable Energy and Material Use	Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	535	Sustainable Ecosystems	How human activities and management practices alter biodiversity, ecosystem functioning and the provisioning of ecosystem services; use of economic and other social-science perspectives to estimate the value of ecosystem services; evaluation of options for achieving the sustainable flow of services from ecosystems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		

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SOS	536	Food System Sustainability	Broad view of food systems and the sustainability of such systems. Concepts, theory, methods and empirical analyses from diverse disciplines, including agro-ecology, agronomy, political science, agricultural economics, geography, anthropology, and food and nutrition studies. Students choose a theme that is a core concern to food system sustainability and pursue that theme in diverse course activities and through engaging in the broader food system we are embedded in as residents in the Phoenix area. Culminates with a term paper/project that synthesizes experience and knowledge, providing a unique perspective on their role in food systems.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	540	Statistical Modeling for Sustainability	Equips students with sufficient knowledge of statistical theory and methods of applied data analysis to enable them to understand and critique empirical research papers and to conduct their own basic quantitative analysis. Exposes students to applications of statistical methods in the literature to foster an understanding for how statistical and econometric tools are utilized in the research community and to develop an appreciation for the careful synthesis of social and natural science theory, knowledge of data and its limitations, and command of statistical tools that constitute quality empirical research. Class sessions primarily focus on the development of the necessary theoretical "toolbox"; practical skills in the use of a statistical software package and in interpreting its output are fostered through problem sets.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	550	Introduction to Sustainability and Organizational Strategies	Focuses on organizational strategies for technology companies competing in a global environment. Strategic and tactical decision implications of a life cycle value proposition; modeling and analysis for strategic decisions about product/service bundles and delivery mechanisms; innovation; technology, including the linkages to the firm strategy and empirical evidence; supply, demand, and value chain; research of laws, guidelines and international agreements.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	551	Water Policy and Management	Covers water policy and management focused on Arizona. Useful to anyone looking for a general background on water issues in Arizona or considering a career in water resources and environmental engineering, planning, or public policy. Divided into three major sections: the history of water resources development and hydrology of Arizona; water management in Arizona; and an examination of current issues and controversies.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		You may not enroll in SOS 551 if you have credit in CEE 544
SOS	552	Advanced Earth Systems Engineering and Management	Advanced introduction to earth systems engineering and management, and the technological, economic and cultural systems underlying the terraformed Earth.	N	LEC	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	559	Sustainable Technology and Management Capstone	Provides opportunity to demonstrate comprehension of the fundamental aspects that have been introduced in the classroom and the synthesis of these fundamental aspects into a demonstrable project that can be presented and defended.	N	STO	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	579	Proposal Writing	Proposal writing and reviewing with a focus on the NSF dissertation improvement grant format. Discusses professional development.	N	SEM	N	OPT	School of Sustainability	School of Sustainability	3.		
SOS	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Sustainability	School of Sustainability	1-12		
SOS	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z2	School of Sustainability	School of Sustainability	1-12		
SOS	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-12		

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SOS	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	School of Sustainability	School of Sustainability	1.		
SOS	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-4		
SOS	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	N	LEC	Y	Z2	School of Sustainability	School of Sustainability	1-12		
SOS	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	Y	OPT	School of Sustainability	School of Sustainability	1-12		
SOS	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	N	LEC	Y	Z2	School of Sustainability	School of Sustainability	1-15		
SOS	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	School of Sustainability	School of Sustainability	1-15		
SP	431	Prose of Golden Age		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	107	Spanish for International Professions I	Accelerated program alternative to SPA 101, 102 sequence. Functional approach to needs of international professions. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.		
SPA	111	Fundamentals of Spanish	Primarily for students with two years of high school Spanish who need review to enter second-year study. Credit is allowed for only SPA 111 or both SPA 101 and 102. fee	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.		You may not sign up for SPA 111 if you have received a D or better in SPA111,201,202,203,204,311,312,313,314,315,316,325,412
SPA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		Prerequisite: Must be a freshmanwith 25 or less total earned hours
SPA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	203	Intermediate Spanish for Bilinguals	For Spanish-speaking students, in lieu of SPA 201. Composition, literature, conversation, grammar fundamentals. fee	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Students may not enroll in SPA 203 if they have received a D or better in SPA201,202,204,311,312,313,314,315,316,325,412
SPA	204	Intermediate Spanish for Bilinguals	For Spanish-speaking students, in lieu of SPA 202. Composition, literature, conversation, grammar fundamentals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	4.	G	Credit is allowed for only SPA 204 or SPA 202, 311, 312, 313, 314, 315, 316, 325, or 412
SPA	207	Spanish for International Professions II	Continuation of SPA 107, alternative to SPA 201, 202 sequence. Expansion of communicative proficiency in specific areas of international professions. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	8.	G	
SPA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SPA	311	Spanish Conversation	Designed primarily for nonmajors to promote vocabulary building and communicative expression in Spanish through discussions based on cultural readings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	312	Spanish Conversation	See SPA 311.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	May not enroll in SPA 313 if received a D or better in SPA 314,315, 316,325,412
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Students may not sign up for SPA 314 if they have received a C or better in SPA 412; Pre-requisite: SPA 313 or 316 with a C grade or better

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SPA	315	Spanish Conversation and Composition for Bilinguals	Emphasizes comparing standard Spanish with regional Southwest Spanish. May be taken in lieu of SPA 313 and 314.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Credit is allowed for only SPA 313, 314, 315, 316, or 412
SPA	316	Spanish Conversation and Composition for Bilinguals	See SPA 315.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		May not enroll in SPA 316, if received a D or better in SPA 314, SPA 412; must have completed SPA 315 with a D or better or in progress
SPA	319	Business Correspondence and Communication	Organization and presentation of clear, effective business communications; vocabulary applicable to modern business usage.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisite: SPA 314 or 316
SPA	325	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisites:SPA 313 or SPA 315 with a grade of D or better or in progress
SPA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	400	Introduction to Spanish Linguistics	Introduces the discipline and methods of linguistics through the study of Spanish data.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better, or in progress
SPA	412	Advanced Conversation and Composition	Oral and written Spanish communication skills, with particular attention given to developing fluency and facility. Required of majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites: SPA 314 or SPA 316 with D or better
SPA	413	Advanced Spanish Grammar	Intensive analysis of the Spanish language. Required of teaching majors.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	G	Pre-requisites:SPA 314 or SPA 316 with a grade of D or better or enrolled
SPA	417	Spanish Phonetics and Phonology	Introduces the theory and practice of Spanish phonetics and phonology.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:SPA 412 with a grade of D or better, or in progress
SPA	418	Spanish Syntax	Introduces the syntax of the Spanish language by analyzing different word categories, their groupings in phrases, and the structure of both simple and complex sentences. Advanced course that requires some previous knowledge of basic structures of the language and their internal structure.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SPA 413 with C or better
SPA	420	Applied Spanish Linguistics	Applies linguistic principles to the teaching of Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisites: SLC 400(or equivalent) with C or better; SPA 412
SPA	421	Spanish in the Southwest	Discussion and linguistic analysis of Southwest Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or SB) & C	Pre-requisites: SPA 412 with C or better
SPA	422	Spanish Lexicology and Lexicography	Explores the linguistic theory and methodology related to the defining of meanings of words in Spanish dictionaries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites: SPA 412
SPA	425	Spanish Literature	Surveys Spanish literature from its beginning to 1700.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisite: SPA 325
SPA	426	Spanish Literature	Surveys Spanish literature from 1700 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU	Pre-requisite: SPA 325
SPA	427	Spanish American Literature	Surveys major works, figures, and movements from Colonial period to 1880.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisite: SPA 325
SPA	428	Spanish American Literature	Surveys major works, figures, and movements from 1880 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L & G	Pre-requisite: SPA 325
SPA	429	Mexican Literature	Selected readings from pre-Columbian writers/poets (e.g., Macuilxochitl) through the novel of the Revolution to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: SPA 325
SPA	431	Prose of Golden Age		N	LEC	N	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	434	Drama of the Golden Age	Dramatic works of Lope de Vega, Calderon de la Barca, and their contemporaries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: SPA 325
SPA	435	Cervantes-Don Quijote	Don Quijote and the development of the novel.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: SPA 325
SPA	454	19th-Century Spanish American Narrative	Principal works in the novel, short story, narrative fiction, and narrative (Gauchesque) poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: SPA 325
SPA	456	20th-Century Spanish American Fiction	Major works and movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: SPA 325
SPA	464	Mexican American Literature	Representative literature in Spanish and English by Mexican Americans, emphasizing sociocultural as well as literary values.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(HU or SB) & C	Pre-requisite: SPA 325
SPA	471	Civilization of the Spanish Southwest	Political, intellectual, social, economic, and artistic development of the Spanish-speaking people of the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(L or HU) & C	Pre-requisites: SPA 314 or 316
SPA	472	Spanish American Civilization	Growth of the institutions and cultures of Spanish American people.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	HU & H & G	Pre-requisites:SPA 314 or 316
SPA	473	Spanish Civilization	Political, intellectual, social, economic, and artistic development of the Spanish nation from its origin to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	(HU or SB) & G	Pre-requisites:SPA 314 or 316 with a grade of D or better or currently enrolled
SPA	474	Mexican Culture	Examines diverse aspects of Mexican culture since the 1910 Revolution.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: SPA 325
SPA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		

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SPA	485	Mexican American Short Story	Critical study of contemporary short stories by Mexican American authors, with emphasis on their Spanish-language writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.	L	Pre-requisite: SPA 325
SPA	486	Mexican American Novel	Social and literary contexts of representative novelists, emphasizing their Spanish-language writings.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: SPA 325
SPA	487	Mexican American Drama	Representative dramatic works, with emphasis on the history and development of this genre from its regional origins to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisite: SPA 325
SPA	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		Pre-requisites: Must be an Honors student
SPA	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-6	L	Pre-requisites: Must be an Honors student
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	497	Honors Colloquium		Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-6		
SPA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-7		
SPA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
SPA	500	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	534	Spanish Drama of the Golden Age	Analyzes principal works and figures of Golden Age Drama (Cervantes, Lope de Vega, Calderón, Tirso de Molina, Moreto, Ruiz de Alarcón) with current theater theory and comedia performance.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	536	Generation of 1898	Works of Unamuno, Baroja, Azorín, and their contemporaries, studied against the ideological background of the turn of century in Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	537	Women in Spanish Literature	Major female writers and their texts from Spanish literature (María de Zayas, Ángela Grassi, Concepción Arenal, Emilia Pardo Bazán, Carmen Laforet, Paloma Pedrero) interpreted via current feminist and other critical theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	538	Mexican American Women Writers	Major female figures and works in Spanish or translation by contemporary writers (Zamora, Castillo, Corpi, Anzaldúa, L.D. Cervantes, D. Chávez, Duarte, Cisneros) interpreted via current feminist and other critical theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	540	History of the Spanish Language	Analyzes and discusses the development of Spanish from Vulgar Latin to the present day.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	541	Spanish Language in America	Discusses and analyzes various regional and social varieties of Spanish in the Americas.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	542	Studies in the Spanish of the Southwest	Examines bilingualism and the social and regional dialects of Spanish in the Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	543	Structure of Spanish	Analyzes and discusses data on selected topics in Spanish morphology, semantics, and syntax.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	544	Spanish Phonology	Surveys problems of Spanish phonology within the context of recent phonological theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	545	Concepts of Literary Criticism	Aims and methods of modern literary scholarship. Discusses major theories of literary analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	552	Studies in Mexican American Film	Major figures and films by contemporary filmmakers (Sylvia Morales, Cheech Marín, Gregory Nava, Lourdes Portillo, Roberto Rodríguez, Evelina Fernández) interpreted via critical film theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	555	Spanish American Modernism	Principal works and figures of literary modernism, 1880-1920, with emphasis on international literary context of the movement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	557	Contemporary Spanish American Poetry	Major works and problems in contemporary poetry and poetics, with emphasis on Paz, Parra, Cardenal, and new poetry since 1960.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	560	Medieval Spanish Literature	Major figures and works of the Middle Ages in Spain.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	561	Golden Age Spanish Prose Fiction	Major figures and works of the 16th and 17th centuries, with emphasis on the picaresque novel.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	562	Golden Age Spanish Poetry	Major figures and works of the 16th and 17th centuries, with emphasis on lyric poetry.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

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SPA	563	Spanish Romanticism	Principal figures and works of Spanish romanticism, with emphasis on international literary context of the movement.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	564	19th-Century Spanish Prose Fiction	Principal figures and works of realism in the 19th-century novel, with emphasis on Galdós.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	565	20th-Century Spanish Drama	Principal figures and works of Spanish dramatic literature from the Generation of 1898 to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	566	Generation of 1927	Major poets of the Generation of 1927, with emphasis on works of Lorca, Guillen, Salinas, and Aleixandre.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	567	Contemporary Spanish Novel	Major works of post-Civil War Spanish fiction.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	568	Cervantes	Extensive analysis of the prose and theater of Cervantes as a key figure of the Spanish Golden Age.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	569	Studies in Spanish Film	Examines major figures and films in Spanish cinema. Critically interprets films through current film theory, history, and critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	570	Indigenous Literatures of Spanish America	Indigenous literary traditions, with emphasis on Nahuatl, Mayan, and Quechua literatures through readings in Spanish translations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	571	Colonial Spanish American Literature	Major figures and works from conquest to independence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	572	Spanish American Drama	Major contributions of Spanish American drama, with emphasis on contemporary dramatists.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	573	Spanish American Essay	Major works of the essay, within the framework of intellectual history and literary movements.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	574	Spanish American Vanguard Poetry	Examines poetic developments, 1920-1940, with emphasis on Huidobro, Vallejo, Neruda, and the international context of their works.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	575	Contemporary Spanish American Novel	Principal novels of the <i>Nueva Narrativa Hispanoamericana,</i> within the context of contemporary theories of the narrative.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	576	Contemporary Spanish American Short Story	Principal short stories of the <i>Nueva Narrativa Hispanoamericana,</i> within the context of contemporary theories of the narrative.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	577	Regional Spanish American Literature	Figures and works of major national (Peru, Argentina, Chile, and Mexico) and regional (Caribbean) literatures. Topics offered on a rotating basis. May be repeated when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	578	Novel of the Mexican Revolution	Representative works and authors of this genre (Guzmán, Azuela, Urquiza, Muñoz, and Romero), including related or peripheral offshoots in indigenous novels.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	581	Latin American Popular Culture	Studies in selected topics of Latin American popular culture, with emphasis on appropriate academic models for the critical analysis of these materials.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	582	Studies in Latin American Film	Examines the role of film in contemporary Latin American culture; films viewed and analyzed as casebook examples.	N	SEM	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	585	Mexican American Short Story	Major collections and figures in Spanish or translation by contemporary Chicano short story writers (Úlica, Suárez, Ulibarri, Soto, Aguilar, P. Martín, Alarcón, R. Sánchez, N. Cantú, J. Sagel, Cisneros) interpreted via current narrative theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	586	Mexican American Novel	Major novels and figures in Spanish or translation by contemporary Chicano novelists (Hinojosa-S., Méndez, Morales, Cota-Cárdenas, Cisneros) interpreted via current narrative theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	587	Mexican American Drama	Major works of Mexican American drama, with emphasis on contemporary playwrights (Valdez, Portillo-T., Morton, Mora, Gómez-Peña) interpreted via current critical drama theory or other methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	588	Mexican American Essay	Major figures and essays in Spanish or translation by contemporary essayists (Rendón, Anzaldúa, Villanueva, Rodríguez, Mora, Stavans) interpreted via current critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	589	Mexican American Poetry	Major figures and works in Spanish or translation by contemporary poets (Gonzales, Alurista, L.D. Cervantes, B. Zamora, R. Sánchez, Baca, G. Valdés, J. Montoya, G. Velázquez, T. Villanueva, J.F. Herrera, A. Villanueva) interpreted via current critical theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
SPA	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	601	Latin American Feminist Cultural Production	Latin American feminist theory and studies as viewed through cultural production such as literature, film, photography, art.	N	SEM	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		
SPA	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	791	Seminar		Y	LEC	Y	CNV	Liberal Arts and Sciences	School of International Letters and Cultures	1-12		
SPA	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		
SPA	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of International Letters and Cultures	1.		
SPA	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Liberal Arts and Sciences	School of International Letters and Cultures	1-15		

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SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.		Students may not sign up for SPA 101, OR 102 if they have received a D or better in SPA 111.
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.		Students may not sign up for SPA 101, OR 102 if they have received a D or better in SPA 111.
SPA	107	Spanish for International Professions I	Accelerated program alternative to SPA 101, 102 sequence. Functional approach to needs of international professions. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	8.		
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 203, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	207	Spanish for International Professions II	Continuation of SPA 107, alternative to SPA 201, 202 sequence. Expansion of communicative proficiency in specific areas of international professions. Fee.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	8.	G	
SPA	311	Spanish Conversation	Designed primarily for nonmajors to promote vocabulary building and communicative expression in Spanish through discussions based on cultural readings.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	312	Spanish Conversation	See SPA 311.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	Pre-requisites: Must have completed SPA 202 with a grade of C or greater.
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	Students may not sign up for SPA 314 if they have received a C or better in SPA 412; Pre-requisite: SPA 313 or 316 with a C grade or better
SPA	325	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisites:SPA 313 or SPA 315 with a grade of D or better or in progress
SPA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	412	Advanced Conversation and Composition	Oral and written Spanish communication skills, with particular attention given to developing fluency and facility. Required of majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	Pre-requisites: SPA 314 or SPA 316 with D or better
SPA	413	Advanced Spanish Grammar	Intensive analysis of the Spanish language. Required of teaching majors.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	G	Pre-requisites:SPA 314 or SPA 316 with a grade of D or better or enrolled
SPA	425	Spanish Literature	Surveys Spanish literature from its beginning to 1700.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: SPA 325
SPA	426	Spanish Literature	Surveys Spanish literature from 1700 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	Pre-requisite: SPA 325
SPA	427	Spanish American Literature	Surveys major works, figures, and movements from Colonial period to 1880.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L	Pre-requisite: SPA 325
SPA	428	Spanish American Literature	Surveys major works, figures, and movements from 1880 to the present.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	L & G	Pre-requisite: SPA 325
SPA	464	Mexican American Literature	Representative literature in Spanish and English by Mexican Americans, emphasizing sociocultural as well as literary values.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(HU or SB) & C	Pre-requisite: SPA 325
SPA	472	Spanish American Civilization	Growth of the institutions and cultures of Spanish American people.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H & G	Pre-requisites:SPA 314 or 316
SPA	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
SPA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
SPA	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		

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SPA	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
SPA	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
SPA	101	Elementary Spanish	Fundamentals of the language. Emphasizes listening, speaking, reading, and writing. Credit is allowed for only SPA 101 or 111. Fee.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		Students who have taken SPA 102,111,201,202,203, 204, 311, 312, 313,314,315,316,325, OR 412 may not enroll in SPA 101
SPA	102	Elementary Spanish	See SPA 101. Credit is allowed for only SPA 102 or 111. fee	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		May not sign up for SPA 102 if received a D or better in SPA111,201-204;311-316,325,412
SPA	111	Fundamentals of Spanish	Primarily for students with two years of high school Spanish who need review to enter second-year study. Credit is allowed for only SPA 111 or both SPA 101 and 102. fee	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.		You may not sign up for SPA 111 if you have received a D or better in SPA111,201,202,203,204,311,312,313,314,315,316,325,412
SPA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SPA	201	Intermediate Spanish	Continuation of fundamentals. Emphasizes the development of the skills of reading, listening comprehension, speaking, writing, and culture.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 201 if credit received in SPA 202, 204, 311, 312 ,313 ,314 ,315, 316 ,325, or 412
SPA	202	Intermediate Spanish	See SPA 201.	N	LEL	N	OPT	School of Letters & Sciences	School of Letters and Sciences	4.	G	May not enroll in SPA 202 if received a grade of D or better in SPA 204, 311-316, 325 or 412
SPA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SPA	313	Spanish Conversation and Composition	Designed to develop skill and accuracy in spoken and written Spanish. Required of majors; SPA 313 and 314 must be taken in sequence.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	
SPA	314	Spanish Conversation and Composition	See SPA 313.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	G	Students may not sign up for SPA 314 if they have received a C or better in SPA 412; Pre-requisite: SPA 313 or 316 with a C grade or better
SPA	325	Introduction to Hispanic Literature	Critical approach to and analysis of literary types, including poetry, drama, short story, and novel. Required of all majors.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU	Pre-requisites:SPA 313 or SPA 315 with a grade of D or better or in progress
SPA	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
SPC	555	Inclusive Practices for Diverse Learners	Adapting instruction and assessment to meet the needs of all learners in inclusive settings. Includes the creation of plans to address challenging classroom behaviors.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	512	Individuals with Mental Retardation	Etiology, diagnosis, and management of individuals with mental retardation. Current trends in prevention, programming, and teacher preparation. Not recommended for students who have completed SPE 312.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	514	Bilingual/Multicultural Aspects of Special Education	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	515	Methods for the Remediation of Learning Problems of Exceptional Children	Methods and materials for remediating the basic academic problems of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	519	Inclusion Methods: Science, Social Studies, and Mathematics	Instructional strategies used for delivery of science, social studies, and mathematics with exceptional children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	520	Reading and Communication Strategies for Individuals with Autism	Understands and applies reading and communication strategies with individuals with autism and related disorders. Includes historical, diagnostic, and identification issues.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	521	Foundations of Autism Spectrum Disorders	Increases the understanding of characteristics of individuals with autism.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	524	Effective Classroom Behavior Management	Organization and delivery of instruction including formative evaluation and techniques of academic behavior management for exceptional children. Requires practicum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	525	Social Behavior Interventions	Analysis and intervention into social behavior problems of exceptional students. Focuses on strategies to change maladaptive social behavior. Requires practicum.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	531	Methods of Applied Behavior Analysis for Exceptional Populations	Behavior management approaches for classroom behavior of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	536	Characteristics of Children with Behavioral Disorders	Variables contributing to behavior patterns of behaviorally disordered children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	537	Instructional Management: Reading and Language Arts	Instructional strategies used for delivery of reading and language arts with exceptional children and youth.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only

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SPE	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPE	548	Cross-Categorical Foundations: LD, ED, MR, & PI/OHI	Foundations course compares cognitive, motor, and affective developmental and educational issues across LD, ED, MR, and PI/OHI.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	550	Inclusion Practices in Science and Mathematics	Facilitates and expands knowledge in the practical application of strategies meeting diverse needs of learners in science and mathematics classrooms	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	551	Teaching Young Children with Special Needs	Methods, materials, and curriculum for preschool and primary-aged children with special needs.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	554	The Parent/School Partnership	Includes knowledge and procedures for involvement and training of parents and caregivers of preschool and severely handicapped individuals. Requires field experience.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	561	Characteristics/Diagnosis of Learning Disabilities	Theories related to learning disabilities, including identification and characteristics.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	566	Applied Behavior Analysis in Inclusive Settings	Definitions, characteristics, assumptions, and basic principles of behavioral analysis as applied to social skills in inclusion settings.	N	DIS	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	574	Educational Evaluation of Exceptional Children	Design and statistical considerations of normative and criterion-referenced tests. Collection, recording, and analysis of data from formative evaluation.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	575	Survey and Current Issues for Children with Special Needs	Mainstreaming, noncategorical, financing, legal diagnostic, labeling, legislative, and other critical and controversial issues related to the education of exceptional children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	577	Inclusive Teaching and Learning	Develops successful learning environments for students using evidence-based instructional approaches, collaborative teaching models, and culturally responsive practices.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	582	Research and Evaluation in Special Education	Introduces interpreting research. Specific research techniques with primary emphasis on classroom research.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	585	Creativity: Research and Development	Explores nature of creativity in terms of philosophical underpinnings, empirical evidence, human development, self-actualization, and the ecology surrounding the creative event.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	586	Advising the Gifted Child	Focuses on educational planning and guidance, social and emotional development, and family problem solving regarding needs of gifted children.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	587	Controversies in Educating the Gifted	In-depth analysis of major controversies in educating the gifted, including nature/nurture, the role of mental tests, and sex differences.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	588	The Gifted Child	Gifted children's characteristics, identification, needs, school and home environments, definitions, and misunderstandings. Research by Pressey, Stanley, Terman, and others.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	589	Methods in Teaching the Gifted	Methods in teaching elementary and secondary school gifted children, including individualized and computer-assisted instruction, team teaching.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be graduate student in Special Education
SPE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be a graduate student in Special Education

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be a graduate student in Special Education
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre-requisites: Graduate students only
SPE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be a graduate student in Special Education
SPE	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisite: Must be a graduate student in Special Education
SPE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre-requisite: Must be a graduate student in Special Education
SPE	702	Conducting Research with Special Populations	Considers concepts and methodologies for conducting research with any aspect of special education, including gifted and multicultural.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre-requisites: Graduate students only
SPE	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre-requisites: Graduate students only
SPE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre-requisite: Must be Graduate(doctoral) student in Special Education
SPE	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be a graduate student (doctoral) in Special Education
SPE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be a grad(doctoral) student in Special Education
SPE	316	Introduction to Physical Disabilities and Other Health Impairments	Introduces various physical disabilities and other health impairments with an emphasis on service delivery in schools and communities.	N	LEC	N	OPT	Institute & Grad Sch Education	Division of Curriculum and Instruction	3.		
SPE	511	The Exceptional Child	Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	512	Individuals with Mental Retardation	Etiology, diagnosis, and management of individuals with mental retardation. Current trends in prevention, programming, and teacher preparation. Not recommended for students who have completed SPE 312.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	514	Bilingual/Multicultural Aspects of Special Education	Theories and issues related to the education of bilingual and culturally diverse exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	519	Inclusion Methods: Science, Social Studies, and Mathematics	Instructional strategies used for delivery of science, social studies, and mathematics with exceptional children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	520	Reading and Communication Strategies for Individuals with Autism	Understands and applies reading and communication strategies with individuals with autism and related disorders. Includes historical, diagnostic, and identification issues.	N	DIS	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	521	Foundations of Autism Spectrum Disorders	Increases the understanding of characteristics of individuals with autism.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	531	Methods of Applied Behavior Analysis for Exceptional Populations	Behavior management approaches for classroom behavior of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	532	Systems, Policies, and Program Practices	Analyzes historical, political, social, and legal factors impacting special education services.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	533	Issues and Foundations in Special Education	Foundational themes and issues in special education. Critical issues related to characteristics of students with mild emotional disturbance, behavior disorders, learning disabilities, mental retardation, orthopedic, and other health impairments.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	534	Assessment and Evaluation for Children with Special Needs	Discusses assessment practices related to student eligibility and program planning. Emphasizes authentic, individualized, interdisciplinary practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	535	Curricula, Methods, Technology, and Adaptations in Special Education	Develops strategies for effective adaptation of special education and general education curriculum through use of technology.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	536	Characteristics of Children with Behavioral Disorders	Variables contributing to behavior patterns of behaviorally disordered children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	537	Instructional Management: Reading and Language Arts	Instructional strategies used for delivery of reading and language arts with exceptional children and youth.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	540	Family Centered Practices	Issues associated with families and family systems. Effects of disabilities on families. Strategies for family support and empowerment.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	541	Consultation Frameworks and Issues	Models, activities, and roles of educational consultants working with families, professionals, and support personnel across disciplines and agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	542	Systems, Policies, and Program Practices for Infants and Young Children	Analyzes historical, political, social, and legal factors affecting services for infants and young children. Examines critical issues.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	543	Issues in the Development of Infants and Young Children	Factors and conditions that affect early development. Strategies for promoting attachment, self-regulation, resilience, adaptation, and coping.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	544	Assessment and Evaluation of Infants and Young Children	Developmental assessment and related program planning for infants and young children. Emphasizes authentic, individualized, family-centered and culturally competent approaches.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	545	Curricula, Methods, Technology, and Adaptations for Infants and Young Children	Developmentally appropriate practices. Serving young children with diverse abilities in natural, inclusive settings. Emphasizes cognitive development, social competence.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	546	Communication, Language, and Early Literacy	Early communication development and language acquisition. Facilitating communicative competence and early literacy for infants and young children with diverse abilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	547	Supporting Motor Development	Early sensorimotor development. Strategies to facilitate the acquisition of motor skills and address the needs of children with motor disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	548	Cross-Categorical Foundations: LD, ED, MR, & PI/OHI	Foundations course compares cognitive, motor, and affective developmental and educational issues across LD, ED, MR, and PI/OHI.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	550	Inclusion Practices in Science and Mathematics	Facilitates and expands knowledge in the practical application of strategies meeting diverse needs of learners in science and mathematics classrooms	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	2.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	551	Teaching Young Children with Special Needs	Methods, materials, and curriculum for preschool and primary-aged children with special needs.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	553	Developmental/Functional Assessment	Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	554	The Parent/School Partnership	Includes knowledge and procedures for involvement and training of parents and caregivers of preschool and severely handicapped individuals. Requires field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	561	Characteristics/Diagnosis of Learning Disabilities	Theories related to learning disabilities, including identification and characteristics.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	566	Applied Behavior Analysis in Inclusive Settings	Definitions, characteristics, assumptions, and basic principles of behavioral analysis as applied to social skills in inclusion settings.	N	DIS	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	574	Educational Evaluation of Exceptional Children	Design and statistical considerations of normative and criterion-referenced tests. Collection, recording, and analysis of data from formative evaluation.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	575	Survey and Current Issues for Children with Special Needs	Mainstreaming, noncategorical, financing, legal diagnostic, labeling, legislative, and other critical and controversial issues related to the education of exceptional children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	577	Inclusive Teaching and Learning	Develops successful learning environments for students using evidence-based instructional approaches, collaborative teaching models, and culturally responsive practices.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	578	Student Teaching in Special Education	Y grade only. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	579	Apprentice Teaching in Special Education	Apprentice teaching in special education setting. Must be taken four times for a total of 12 semester hours. Lab, field experience. Fee.	N	FLD	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	582	Research and Evaluation in Special Education	Introduces interpreting research. Specific research techniques with primary emphasis on classroom research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	585	Creativity: Research and Development	Explores nature of creativity in terms of philosophical underpinnings, empirical evidence, human development, self-actualization, and the ecology surrounding the creative event.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	586	Advising the Gifted Child	Focuses on educational planning and guidance, social and emotional development, and family problem solving regarding needs of gifted children.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	587	Controversies in Educating the Gifted	In-depth analysis of major controversies in educating the gifted, including nature/nurture, the role of mental tests, and sex differences.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	588	The Gifted Child	Gifted children's characteristics, identification, needs, school and home environments, definitions, and misunderstandings. Research by Pressey, Stanley, Terman, and others.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	589	Methods in Teaching the Gifted	Methods in teaching elementary and secondary school gifted children, including individualized and computer-assisted instruction, team teaching.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	222	Orientation to Education of Exceptional Children	Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB & C	
SPE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	298	Honors Directed Study		N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
SPE	310	Professional Practices and Foundations in Special Education	Foundational themes and issues in special education. Discusses each disability within the mild cross-categorical area in relation to foundational themes and issues relating to professional practices in special education.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	312	Mental Retardation	Characteristics and assessment specific to mental retardation. Emphasizes terminology, development, educational programming, and therapeutic procedures.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	314	Introduction to Bilingual/Multicultural Special Education	Theoretical background and practical application of general issues regarding the education of bilingual/multicultural handicapped children.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	317	Special Education for Culturally and Linguistically Diverse Children and Youth	General issues and practical applications regarding the education of culturally and linguistically diverse students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	318	Family-School Collaboration	Explores relationships between families of children with special needs and professionals in educational institutions and community agencies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	320	Assessment and Evaluation of Children with Special Needs	Norm-referenced, criterion-referenced, and formative evaluation to determine eligibility, plan individualized programs, and monitor progress of students with disabilities.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	322	Behavior Management and Consultation	Analysis, intervention, and consultatoin strategies for effective management of classroom and social behavior for students with special needs.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	336	Behavioral and Emotional Problems in Children	Characteristics and assessment specific to emotionally and behaviorally disturbed children. Emphasizes terminology, development, and educational programming.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	361	Introduction to Learning Disabilities	Characteristics and assessment specific to learning disabilities. Emphasizes terminology, development, and educational programming.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	396	Field Experience I	Applies course content while working with students with disabilities in inclusive settings. Emphasizes classroom and behavior management. Fee.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	397	Field Experience II	Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. fee	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	411	Parent Involvement and Regulatory Issues	Emphasizes parent and school relations through effective communication and state and federal regulations impacting services for the handicapped.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	412	Evaluating Exceptional Children	Normative and criterion-referenced diagnostic techniques, including formative evaluation. Emphasizes application. Requires daily practicum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	413	Methods in Language, Reading, and Mathematics for Exceptional Children	Methods, techniques, and materials for use in prescriptive teaching. Requires daily practicum.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	414	Instructional Management and Strategies: Reading and Writing	Organization and delivery of instruction, including formative evaluation techniques. Instructional techniques of reading and writing. Requires regular participation in a field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	415	Classroom and Behavior Management	Analysis and intervention into social behavior problems of exceptional populations. Requires regular participation in a field experience.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	416	Quality Practices in the Collaborative Classroom	Develops skills, strategies, and a knowledge base for preservice teachers in building collaborative partnerships with special educators. May be repeated for credit.	Y	FLD	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisites: Admission to Professional Teacher Preparation Program
SPE	417	Inclusion Practices at the Secondary Level	Applies curricular practice and how preservice teachers work with students with special needs in middle and secondary levels.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
SPE	419	Instruction in Content Areas: Science and Social Studies	Develops and implements instructional methods and learning strategies for students with special needs related to science and social studies.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	423	Technology & Instructional Methods in Language, Reading, & Mathematics for Special Needs students	Technology and instructional methods in language, reading, and mathematics for students with special needs.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	424	Methods of Cross-Categorical Special Education	Assessment and instructional methods for students with mild to moderate retardation, learning disability, emotional disabilities, and physical/health impairment.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	431	Collaborative Teaching Methods for General Education Classroom Environments	Methods and issues in cooperative teaching for special education students in general education classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPE	440	Professional Seminar in Special Education	Examines critical issues in the delivery of special education services. Emphasizes self reflection and professional development.	N	SEM	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	478	Student Teaching in Special Education	Student teaching in special education setting.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	478	Student Teaching in Special Education	Y grade only. Fee.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3-15		
SPE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	492	Honors Directed Study		N	LEC	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisites: Must be an Honors student
SPE	493	Honors Thesis		N	THE	N	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6	L	Pre-requisites: Must be an Honors student
SPE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
SPE	496	Field Experience III	Applies course content in a special education setting. Emphasizes observation pupil management, planning and delivering instruction, and assessment.	N	PRA	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1.		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	497	Honors Colloquium		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-7		Pre-requisite: Admission to Professional Teacher Preparation Program
SPE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		Pre-requisite: Admission to Professional Teacher Preparation Program
SPF	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
SPF	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	298	Honors Directed Study		N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	301	Culture and Schooling	For the professional teacher preparation program. Overview of the cultural, social, and political milieus in which formal schooling takes place in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.	L	Pre-requisites: completion of first year composition
SPF	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	401	Teachers and the Law	For the professional teacher preparation program. Analysis and interpretation of classroom behavior from perspectives derived from philosophy, social science, and law.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-2		
SPF	402	Teachers and the Law in Indigenous Communities	Examines the legal rights of students, teachers, and the district while preventing injury to students in indigenous communities.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		
SPF	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
SPF	492	Honors Directed Study		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	493	Honors Thesis		N	LEC	N	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6	L	Pre-requisites: Must be an Honors student
SPF	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		
SPF	497	Honors Colloquium		Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-6		
SPF	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPF	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-3		
SPF	501	Culture and Schooling	Introduces social science concepts of culture and the cultural milieu in which schooling takes place in the United States.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	2-3		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	510	Intro to Organization and Administration of American Public Schools	Curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	511	School and Society	Interrelationship of school and society and the role of education in social change.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	515	Gender and Education	Methods and materials for remediating the basic academic problems of exceptional children. Prerequisite: admission to MEd in Special Education program.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	520	Cultural Diversity in Education	Philosophic and sociological investigation of cultural diversity in the United States and how it relates to education.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	530	Sociology of Education	Current issues in the sociology of education: stratification, social mobility.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	534	Foundations of Educational Inquiry	Overview of the nature of inquiry examining the philosophy of science and social science, approaches to knowing in the humanities. Credit is allowed for only SPF 534 or 634.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	544	Philosophical Foundations of Education	Theories of education in ancient, medieval, and modern classical and contemporary philosophies.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	583	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	FLD	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	597	Teacher and the Law	For the professional teacher preparation program. Analysis and interpretation of classroom behavior from perspectives derived from philosophy, social science and the law.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-2		
SPF	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-4		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		
SPF	603	Visual Ethnography in Education	Advanced qualitative methods class combining ethnography with the use of video and still photography in data gathering and presentation.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPF	612	Evaluation Theory	Explores the major theories of evaluation (inquiry leading to value judgments) in educational policy through examination of cases.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	622	Organizational Theory	Major views of organizations and their influence on role definition and participant behaviors in educational organization.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	634	Foundations of Educational Inquiry	Overview of the nature of inquiry examining the philosophy of science and social science, approaches to knowing in the humanities. Credit is allowed for only SPF 634 or 534.	N	SEM	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	677	Foundations of Educational Reform Movements	Historical and contemporary survey of curricular reform movements in the United States with emphasis on equity and social justice issues.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		
SPF	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	685	Education in Global Contexts	Global perspectives on education in contemporary society with emphasis on social, political and economic factors that affect access and equity.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3-6		
SPF	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	THE	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	711	Social and Historical Foundations of Education	Explores the history of sociological thought, especially theories of the relations between educational systems and the social/cultural world.	N	LEC	N	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	3.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	PRA	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-12		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	PRA	Y	Z3	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1.		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate
SPF	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Institute & Grad Sch Education	Adv Stud Eductnl Policy, Leadership & Curriculum T	1-15		Pre Requisite: Must be Post Bacc UG, Non Degree Graduate or Degree Graduate

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SPF	510	Intro to Organization and Administration of American Public Schools	Curricular practices used in inclusion classrooms.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPF	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SPF	301	Culture and Schooling	For the professional teacher preparation program. Overview of the cultural, social, and political milieus in which formal schooling takes place in the United States.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L	Pre-requisites: completion of first year composition
SSH	100	Introduction to Global Health	Current global health crises, challenges; tools for describing health and disease; ecological, cultural, social, historical, political-economic factors; comparative health systems.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & G	
SSH	200	Food and Culture	Uses the case of food to explore how culture shapes human well-being, including the impact of political-economic systems on what we have and chose to eat.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & C	Pre-requisites: ENG 101, 105, 107, or ENG 111. Students who have credit for ASB 200, may not enroll in SSH 200
SSH	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	301	Global History of Health	Examines disease and health transitions in broadest context of human history, from primate ancestors to hunter-gatherers, to transcontinental contact, colonialism, industrialization, urbanization.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB & H	Pre-requisites:Completed SSH 100 or ASB 100 with a grade of D or better or currently enrolled. If you have credit in ASB 301, you may not enroll in SSH 301
SSH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	400	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	(L or SB) & G	Pre-requisites: ASB 100 (or SSH 100) or ASB 102 with D or better
SSH	401	Health and Human Biology	Health and biology in contexts of human evolutionary history, biological and cultural variation, lab-based health status assessments, core concepts of human variation.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		Pre-requisites: ASB 100 or ASM 104 with D or better or currently enrolled; SSH 100 with D or better or currently enrolled
SSH	402	Community Partnerships for Global Health	Supervised community-based activities relevant to a global perspective on contemporary U.S. health. Addresses community-identified issues using appropriate methodologies.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9	SB	Pre-requisites:SSH 400 or ASB 440 with a grade of D or better or currently enrolled. If you have credit in ASB 452, you may not sign up for SSH 402
SSH	403	Cross-Cultural Studies in Global Health	Direct investigations of society, ecology, and health in international settings.	N	FLD	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-6	SB & G	Pre-requisites:SSH 100 or ASB 100 with a grade of D or better, or currently enrolled. If you have credit for ASB 443, you may not enroll in SSH 403
SSH	404	Medical Anthropology: Culture and Health	Role of culture in health, illness, and curing; health status, provider relations, and indigenous healing practices in United States ethnic groups.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	C	
SSH	405	Senior Seminar in Global Health	Students create health solutions, integrating theoretical, methodological, ethical, and experiential learning related to the global health major.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		
SSH	414	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEL	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.	SB	Pre-requisites: Students who have credit for ASM 414, or SOS 414, may not enroll in SSH 414. Must have one of the following with a grade of C or better: ASB100, 102, 222, 223; ASM 104; AML 100, SSH 100
SSH	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		
SSH	492	Honors Directed Study		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
SSH	493	Honors Thesis		Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-6		
SSH	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-4		
SSH	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-3		
SSH	503	Medical Anthropology	Theory in medical anthropology and cross-cultural studies that illustrate particular theories.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	510	Health: Social and Biocultural Theories	Comparative and critical approaches to complexities of health, drawn from anthropology and related fields Focuses on theories that address how social and cultural factors shape human health.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SSH	511	Ethics in Health Social Science Research	Ethics and social justice issues in community-based health research relevant to health social science, including informed consent, community involvement, control, advocacy.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: SSH 510 or ASB 510 completed with D or better or currently enrolled
SSH	512	Social Science Applications in Community Health	Supervised community-based activities relevant to improvement of health through application of social science theory.	N	PRA	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3-9		Pre-requisites: ASB 511 or SSH 511 with D or better. Must be graduate student
SSH	513	Research Design and Proposal Writing in Health Social Science	Research design, piloting, and proposal writing for social scientists conducting health research.	N	SEM	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	3.		Pre-requisites: ASB 500 completed with D or better or currently enrolled; SSH 511 or ASB 511 completed with D or better or currently enrolled
SSH	514	Urban and Environmental Health	Integrates theory and practice of social sciences (including anthropology, demography, and human geography) to understand environmental contexts of health, particularly urban.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	4.		
SSH	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	N	LEC	Y	Z3	Liberal Arts and Sciences	School of Human Evolution & Social Change	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
SSH	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Human Evolution & Social Change	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
STM	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Graduate College	Graduate College	1-12		
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	College of Tech & Innovation	Department of Applied Sciences and Mathematics	3.	CS	Pre-requisites: MAT 117 or MAT 142 with C or better
STP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		Prerequisite: Must be a freshman with 25 or less total earned hours
STP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	220	Conceptual Statistics	Treats the concepts and vocabulary needed to evaluate statistical reports on health, technology, and society. Aggressively emphasizes understanding over computation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 117 or MAT 142 or other course meeting General Studies MA requirement with C or better
STP	231	Statistics for Life Science	Concepts and methods of statistics; display and summary of data, interval estimation, hypothesis testing, correlation, regression. Applications to biological sciences.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Prerequisites: MAT 117 or 142 with C or better
STP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	298	Honors Directed Study		N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		
STP	326	Intermediate Probability	Probability models and computations, joint and conditional distributions, moments, and families of distributions. Topics in stochastic processes, simulation, and statistics.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 210 or 251 or 265 or 270 with C or better
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: MAT 117 or MAT 142 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
STP	421	Probability	Laws of probability, combinatorial analysis, random variables, probability distributions, expectations, moment-generating functions, transformations of random variables, and central limit theorem.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 272 or 267 with C or better
STP	425	Stochastic Processes	Markov chains, stationary distributions, pure jump processes, 2-D order processes, and other topics in stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Prerequisites: MAT 342 (or 343); STP 421 with C or better.
STP	427	Mathematical Statistics	Limiting distributions, interval estimation, point estimation, sufficient statistics, and tests of hypotheses.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		Pre-requisites: STP 421 with C or better
STP	429	Experimental Statistics	Statistical inference for controlled experimentation. Multiple regression, correlation, analysis of variance, multiple comparisons, and nonparametric procedures.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.	CS	Pre-requisites: STP 420 with C or better
STP	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6		Pre-requisites: Must be an Honors student
STP	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-6	L	Pre-requisites: Must be an Honors student
STP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		
STP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-7		
STP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-3		
STP	525	Advanced Probability	Measure-theoretic foundations of probability, distribution functions and characteristic functions, laws of large numbers and central limit theorems, conditional probabilities, martingales, and topics in stochastic processes.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	526	Theory of Statistical Linear Models	Multinormal distribution, distribution of quadratic forms, full and nonfull rank models, generalized inverses, unbalanced data, variance components, and the large sample theory.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	527	Statistical Large Sample Theory	Types of convergence, central limit theorems, theory of maximum likelihood estimation, efficiency, robustness, influence functions, theory of bootstrap methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	530	Applied Regression Analysis	Method of least squares, simple and multiple linear regression, polynomial regression, analysis of residuals, dummy variables, and model building.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	531	Applied Analysis of Variance	Factorial designs, balanced and unbalanced data, fixed and random effects, randomized blocks, Latin squares, analysis of covariance, and multiple comparisons.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	532	Applied Nonparametric Statistics	One-sample test, tests of 2 or more related or independent samples, measures of correlation, and tests of trend and dependence.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	533	Applied Multivariate Analysis	Discriminant analysis, principal components, factor analysis, cluster analysis, and canonical correlation.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	534	Applied Discrete Data Analysis	Models for discrete and count data, measures of association, and log-linear and regression models for contingency tables.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	535	Applied Sampling Methodology	Simple random, stratified, cluster sampling; variance estimation in complex surveys; nonparametric superpopulation approaches; nonresponse models; computational methods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	3.		
STP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
STP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
STP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
STP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-12		
STP	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
STP	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1.		
STP	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Liberal Arts and Sciences	School of Mathematical and Statistical Sciences	1-15		
STP	220	Conceptual Statistics	Treats the concepts and vocabulary needed to evaluate statistical reports on health, technology, and society. Aggressively emphasizes understanding over computation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: MAT 117 or MAT 142 or other course meeting General Studies MA requirement with C or better
STP	300	Introduction to Probability	Probability models and computations, joint and conditional distributions, moments, families of distribution, stochastic processes, simulation.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Pre-requisite: Must have completed MAT210 with a grade of C or greater or be currently enrolled.
STP	326	Intermediate Probability	Probability models and computations, joint and conditional distributions, moments, and families of distributions. Topics in stochastic processes, simulation, and statistics.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	
STP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
STP	420	Introductory Applied Statistics	Introductory probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, chi-square tests, regression analysis, analysis of variance, and nonparametric tests.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.	CS	Pre-requisites: MAT 117 or MAT 142 with C or better
STP	421	Probability	Laws of probability, combinatorial analysis, random variables, probability distributions, expectations, moment-generating functions, transformations of random variables, and central limit theorem.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	3.		Prerequisites: MAT 272 or 267 with C or better
STP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		
STP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Mathematical and Natural Sciences	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
STP	226	Elements of Statistics	Basic concepts and methods of statistics, including descriptive statistics, significance tests, estimation, sampling, and correlation. Not open to majors in mathematics or the physical sciences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	CS	Pre-requisites: MAT 117 or MAT 142 or other course meeting General Studies MA requirement with C or better
STS	101	Introduction to Science, Technology, and Society	Overview of the basic issues, definitions, and literature involved in the study of science, technology, and human systems. Credit is given for only STS 304 or 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	110	Global Technology and Development	Introduces awareness and understanding of how technology, processes of globalization, and society influence one another. Credit is given for only STS 317 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	Credit is allowed for only STS 110 or 317
STS	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
STS	301	Research in Science and Technology Studies	Examines methods of inquiry in the social sciences with emphasis on STS, including both qualitative and quantitative approaches, philosophy of science, and scientific revolutions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	302	Philosophy of Science and Technology	Focuses on the nature and implications of science as a body of knowledge, set of practices, specific methods, and how these differ from other human enterprises and activities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites: ENG 101, ENG 105, ENG 107 or ENG 111 with C or better
STS	303	History of Technology	Examines the history of technology within social, cultural, political, and economic contexts and the critical relationship between society and technology.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	H	
STS	304	Science, Technology, and Society	Overview of the major issues associated with the study of science, technology, and human systems, including theoretical approaches. Credit is given for only STS 304 or 101.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	305	Science and Social Theory	Explores the different theoretical traditions that inform social interpretations of science, including awareness of the historical traditions that define these interpretations.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	306	Social Effects of Science and Technology	Examines the effects of science and technology on social life and the contexts in which those effects manifest.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	317	Science, Technology, and Global Engagement	Overview of international issues associated with both the development and deployment of technologies, including matters concerning international relations. Credit is given for only STS 317 or 110.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	Credit is allowed for only STS 110 or 317
STS	318	Science, Technology, and Government	Examines the foundations of the interrelationship of science, technology, and democratic governance, with emphasis on the American political system.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	325	Science, Technology, and Public Policy	Examines the interaction of science and technology with American domestic policy.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	327	Science and Applied Ethics	Complex issues occurring on the interface of science, society, and values, with a focus on the dilemma of animal subjects in research.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	328	Science, Technology, and Culture	Overview of technology and international cultures, including cultural definitions of science and technology. May intersect issues of culture and religion.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	329	Cultivating Technology in Newly Industrializing Countries	Covers specific issues relating to building technological capability in newly industrializing countries.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	330	Information Technology and Globalization	Examines the intersection of advances in information technology and globalization and the impact of these processes on human systems.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	331	Ethical Issues in Science and Technology	Examines the interconnections between values and science and technology by examining such topics as computers and privacy, medical malpractice, reproductive technologies, patents, and hazardous facilities.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	332	Global Issues in Science and Technology	Examines contemporary international debates in science and technology and how those issues impact globalization.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & G	
STS	364	Science, Technology, and National Security	Examines how changing technologies impact all aspects of national security policy in the United States.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	Pre-requisites:STS 101 and STS 301 with a grade of D or better
STS	380	Science, Technology, and Values	Interdisciplinary evaluation of the mutual interaction of science, technology, and society.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	382	Ethics in Engineering and Technology	Role of engineering and technology in society; focuses on ethical issues confronting engineering and technology professionals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	385	Technological Catastrophes	Interdisciplinary examination of the human, organizational, and technical factors contributing to the causes and impacts of major technological accidents.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	401	Statistics in Science and Technology Studies	Introduces statistical techniques for the social sciences, including the role and rationale of statistics, descriptive measures, associational measures, and inferential statistics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:Completed STS 301 with a grade of D or better
STS	425	Law, Values, Science, and Technology	Examines the interconnections of law, values, and science and technology with a view to establishing their reciprocal relationships.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB	
STS	480	Technology, Ethics, and Society	Technology in modern society; focuses on the relation between technology and personal, cultural, economic, and political values.	N	SEM	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
STS	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
STS	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
STS	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-7		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
STS	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
SWG	501	Micro Human Behavior in the Social Environment	Human behavior in the social environment throughout the life cycle, analyzing theories of human development within an integrative multidimensional framework.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite: MSW or DSW student
SWG	502	Macro Human Behavior in the Social Environment	Human behavior in the social environment, focusing on groups, organizations and communities and examining theoretical perspective in a macro context.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite: MSW or DSW student
SWG	503	Development of Families in Oppressive Context	Addresses the development of healthy families and children. Explores essential tasks of human development and theories that inform practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be admitted to MSW.
SWG	504	Theories of Human Behavior	Addresses development of healthy adults and human behavior in groups, organizations, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; SWG 503 with a C or better or currently enrolled
SWG	510	Foundation Practice I	Basic social work methods with emphasis on the problem-solving process as it pertains to individuals, families, and small groups.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student.
SWG	511	Foundation Practice II	Theory and methods of direct practice with groups and selected practice models.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student; SWG 510 with C or better
SWG	512	Values and Ethics of Social Work Practice I	Develops a basic understanding of diverse ethical systems and their application to a broad range of human problems in various social and cultural contexts.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW student
SWG	513	Social Work Generalist Practice II	Building on SWG 512, continues to develop and apply a generalist framework of social work practice. Examines theories of practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be admitted to the MSW and have completed SWG 512 with a grade of C or greater
SWG	519	Research Methods in Social Work	Conceptual foundations and methods of nomothetic research in social work. Includes problem identification, hypothesis formulation, measurement, sampling, and experimental design.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student.
SWG	520	Research and Advocacy	Develops knowledge and skills needed to utilize and engage in social research related to advocacy issues and the evaluation of social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	531	Social Policy and Services I	Conceptual, analytical, and historical perspectives on the social welfare institution. Emphasizes poverty and inequality. Principles of policy analysis.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral of Social Work student
SWG	532	Policy and Social Change	Overview of the history, development, pertinent concepts, skills, and definitions associated with social welfare problems and policies.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	533	Diversity and Oppression in a Social Work Context	Explores issues of social inequality related to disability, ethnicity, gender, race, and sexual orientation. Emphasizes populations of the Southwest.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral Social Work student.
SWG	534	Diversity and Underserved Populations	Examines issues of privilege and oppression, including their impact on the social work process, with the goal of developing a culturally competent master's-level social worker.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student
SWG	540	The Professional Experience I	150 clock hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters of Social Work student; Co-requisite: SWG 512
SWG	541	Field Practicum I	With SWG 542, two consecutive semesters (480 hours) of supervised social work practice in an approved placement. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Master or Doctor Social Work student; Pre or Co-requisite: SWG 510 with a grade of C or greater if completed
SWG	542	Field Practicum II	See SWG 541. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG510, SWG541, and SWG 511 with a C or greater or be currently enrolled (or be enrolling in SWG511)
SWG	543	The Professional Experience II	250 hours of supervised social work practice plus seminar. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: Master of Social Work student; SWG 512 with C or better; Co-requisite: SWG 513
SWG	550	Co-Occurring Disorders	Provides sound theoretical and practical orientations to working with persons who have co-occurring disorders.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	551	Crisis Intervention	Covers the basics of crisis intervention in social work practice, along with applications to several different populations.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	552	Issues in School Social Work	Provides knowledge and skills necessary to implement effective social work services in a school setting.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	553	Social Work with American Indians	Introduces social work issues relevant to Native Americans. Explores effective methods with Native American clients.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	554	Substance Abuse	Psychological and sociocultural determinants of substance abuse. Overview of social policies and treatment approaches.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SWG	555	Social Work Practice Skills with Latinos	Focuses on communication skills necessary and appropriate for social work practice with Spanish-speaking clients and their families. Credit is allowed for only SWG 555 or SWU 455.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	557	Southwest Borderland Immigration Issues	Reviews immigration history, trends, policies, and legislation. Focuses on immigrant experience from economic, educational, social, political, familial perspectives in Southwestern U.S. Credit is allowed for only SWU 557 or SWG 457.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Masters or Doctoral Social Work student
SWG	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	585	Macro Social Work Practice	Examines communities and human service organizations as social systems. Introduces strategies for initiating planned change.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Masters or Doctoral Social Work student
SWG	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		Pre-requisite: Master or Doctor Social Work student.
SWG	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		Pre-requisites: Master Social Work student
SWG	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Social Work	1-12		
SWG	600	Foundation for Advanced Practice	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: Master Social Work student.
SWG	603	Social Work Practice in Health/Behavioral Health Settings	Advanced social work practice in health and behavioral health settings, focusing on enhancement of client functioning and quality of life.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 502; SWG 511; SWG 542
SWG	604	Advanced Social Work Practice in Health	Addresses the crucial social work practice issues of health and healthcare in the new millennium.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 603
SWG	606	Assessment of Mental Disorders	Theories and concepts of mental health and illness. Attention to classification systems and nomenclature used in assessing mental disorders.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student; SWG 502 with C or better
SWG	608	Ecological Approach to Practice with Children, Youth, and Families	Provides a theoretical and practical orientation to working with children, youth, and families from an ecological strengths perspective.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: SWG 502; SWG 511; SWG 542
SWG	609	Advanced Social Work Practice with Child Welfare Families	Focuses on substance abuse, family violence, and serious mental illness in practice with families and children in the child welfare system.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 608 completed with D or better or currently enrolled
SWG	610	Advanced Social Work Practice III	Assists students in advanced theoretical understanding and practice with families, groups, and communities.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW or MSW Adv Standing student; Co-Requisite: SWG 693 and 645
SWG	611	Social Work with Families	Theory, concepts, and skills for working with diverse family populations. Emphasizes a systems and integrative approach.	N	LEC	N	OPT	College of Public Programs	School of Social Work	2-3		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 510 completed with C or better; SWG 511 completed with C or better or currently enrolled; SWG 541 and SWG 542 completed with Y or currently enrolled
SWG	612	Social Work with Groups	Practices applications of knowledge and skill to social work with groups.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	613	Advanced Social Work Practice in Behavioral Health	Treatment of prevalent disorders encountered by social workers, selected from the following: anxiety disorders, personality disorders, depression, and schizophrenia.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: SWG 603
SWG	614	Advanced Generalist Social Work Practice IV	Integrates a multilevel approach to practice with critical choice theories and interventions. Focus on groups, organizations, and communities and their impact on social work practice. Completion of the foundation courses or advance standing in the MSW program, or instructor approval, is required for all 600- level SWG courses.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	615	Effective Intervention with Children and Adolescents	Provides a framework of knowledge, theories, and skills for effective social work practice with vulnerable children and adolescents.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either:MSW or MSW Adv Standing
SWG	616	Social Work with Chemically Dependent Families	Examines dynamics of the chemically dependent family and presents clinical approaches for intervening in the family system and subsystems.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	617	Advanced Social Work Practice with Children and Adolescents	Theory, research, and intervention that focus on children and adolescents.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled
SWG	618	Domestic Violence	Theory, research, intervention, and prevention strategies relevant to child maltreatment, partner abuse, and elder abuse.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG611 with a grade of C or greater or be currently enrolled

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SWG	619	Practice-Oriented Research	Accelerated course in application of scholarly and scientific principles to field practice, problem formulation, interventional procedures, and impact assessment.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG519 with a grade of C or greater or be currently enrolled
SWG	621	Integrative Seminar	Explores the fit between theoretical frameworks and practice with clients. Requires presentation of empirical studies with clients.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work student; SWG 611 completed with a C or better or currently enrolled; SWG 641 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 613, 616, 617, 618 or 691 with a C or better if completed
SWG	623	Agency and Community-Based Research in Social Work	Research design techniques and data collection in human service agencies and communities. Analysis for program evaluation and needs assessment.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Soc Wrk student; SWG 519 or 520 completed with C or greater or currently enrolled; Pre or Co-requisite: SWG 680 with C or greater if completed, or currently enrolled.
SWG	626	Crisis Intervention and Short-Term Treatment	Comprehensive analysis of crisis and solution-focused brief intervention strategies and approaches used in advanced social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either:MSW or MSW Adv Standing; AND completed SWG 610 with a C or greater
SWG	630	Brief Social Work Intervention	Concepts and techniques of solution-focused, systematic, and strategic approaches to therapy in the context of brief therapy.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	631	Advanced Policy Analysis	Supports advanced generalist practice with emphasis on policy analysis and philosophy and politics of resource allocation and social welfare.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be a student in either: MSW or MSW Adv Standing
SWG	632	Social Policy and Services II	Develops advanced knowledge and skills in social welfare policy analysis, policy formulation, and advocacy and intervention for policy change.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG531 with a grade of C or greater or be currently enrolled
SWG	633	Child Welfare Services	Examines, using ecological and system theories, services that supplement, support, and substitute for parental care of children.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 542 completed with a Y or currently enrolled
SWG	641	Advanced Practicum: Direct Practice I	With SWG 642, two consecutive semesters (480 hours) of supervised social work practice in an approved placement related to the student's career goal. fee	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 511 completed with a C or better or currently enrolled; SWG 542 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 611 (with a C or better if completed)
SWG	642	Advanced Practicum: Direct Practice II	See SWG 641. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work; SWG 511 & SWG 611 with a C or greater or be currently enrolled; SWG 542 & SWG 641with a Y or be currently enrolled; Pre or Co-requisite: SWG 613, 616, 617, 618 or 691 with a C or greater if completed
SWG	643	Advanced Practicum: Planning, Social Work Administration, and Community Practice I	With SWG 644, two consecutive semesters (480 hours) in social work practice in an approved placement related to the student's career goal. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 511 completed with a C or greater or currently enrolled; SWG 542 completed with a Y or currently enrolled; Pre or Co-requisite: SWG 681 or SWG 682 with a C or greater if completed
SWG	644	Advanced Practicum: Planning, Social Work Administration, and Community Practice II	See SWG 643. Fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Masters or Doctoral Social Work student; SWG 511 with C or better; SWG 542/643 with a Y grade; SWG 681 or 682 with a C or better; Pre/Co-requisite:SWG 680 with C or better
SWG	645	The Professional Experience III	240 hours of supervised social work practice. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	PRA	N	YGB	College of Public Programs	School of Social Work	3.		Pre-requisites: MSW student; SWG 542 with a grade of Y OR MSW Advanced Standing student; co-enrolled in SWG 610 and SWG 693
SWG	646	The Professional Experience IV	240 hours of supervised social work practice. Provides opportunities to apply classroom learning in the field setting. Y/E grade only. Fee.	N	PRA	N	YGB	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a student in either the Standard MSW or MSW Adv Standing; completed SWG 645 with a grade of Y; AND be co-enrolled in SWG 614, and SWG 693
SWG	650	Social Work Ethics/Law		N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	653	Theory and Practice of Family Therapy	Provides advanced theoretical knowledge and family treatment models for the practice of social work with families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be a student in either: MSW or MSW Adv Standing.
SWG	653	Introduction to Holistic Therapies	Provides advanced theoretical knowledge and family treatment models for the practice of social work with families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	654	Introduction to Sexual Abuse	Develops general knowledge and skills for working with persons who have been impacted by sexual abuse.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	655	Quality of Life	Addresses key elements of a healthy life style contributing to wellness and disease through experiential learning and evidenced-based research.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	656	Treating the Whole Person	Addresses treating the "whole person's" physical and behavioral health through interviewing, intervention, and treatment within the context of an interdisciplinary model.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites:Must be a graduate student
SWG	657	Ancient Healing Traditions	Historical development and research of the ancient healing teachings of traditional Chinese medicine, Aryurvedic medicine, homeopathic, naturopathic, and indigenous medicine and how they are used in today's health systems.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: must be enrolled in a graduate-level program (degree-seeking or non-degree-seeking)
SWG	660	Clinical Supervision in Social Work.	Examines and practices the knowledge, skills, and values of becoming a social work supervisor in human service agencies.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: Must be Masters or Doctoral Social Work student; SWG 681 or SWG 682 completed with a C or greater or currently enrolled; Pre or Co-requisite: SWG 623 with C or greater if completed
SWG	681	Social Work Administration	Administrative skill building and theory application within human service nonprofit social work settings.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG580 with a grade of C or greater

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SWG	682	Community Participation Strategies	Reviews strategies to involve citizens and the consumers of social and human services in community decision-making systems. Participation is viewed as a means to facilitate the empowerment of oppressed peoples.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Master or Doctor Social Work student; must have completed SWG580 with a grade of C or greater
SWG	683	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	685	Program Planning in Social Services	Social services planning process; includes needs assessment, goals and objectives, program design, budgeting, management information systems, and program evaluation.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWG 681, 682; Co requisite, SWG 523
SWG	686	Developing Grants and Fund Raising	Identifies potential funding sources, technical and interpersonal/political aspects of proposal development and fund raising.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWG	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisites: MSW or MSW Advanced Standing student
SWG	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-12		
SWG	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		Pre-requisites: Must be a student in either: MSW or MSW Adv Standing
SWG	697	Special Topics in Working with Diverse Groups	Provides practice strategies for clients of specific marginalized groups; addresses access to resources; describes the larger political context and policy issues that impact the particular group.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	3.		
SWG	700	Research Methods	Course on research methods in a specific discipline.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	720	Philosophy of Science Issues in Social Work	Critical examination of social science, social work practice, and policy in terms of philosophical assumptions and varying frames of reference.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Master or Doctor Social Work student.
SWG	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-12		Pre-requisite: Master or Doctor Social Work student.
SWG	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-15		Pre-requisite: Master or Doctor Social Work student.
SWG	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Public Programs	School of Social Work	1.		
SWG	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Public Programs	School of Social Work	1-15		Pre-requisite: Master or Doctor Social Work student.
SWU	171	Introduction to Social Work	Descriptive and historical perspectives of social problems, social justice issues and society's response to them.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB & H	
SWU	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	250	Stress Management Tools	Helps students develop an understanding and behaviors to create a healthy balance in their lives by studying the bio/psycho/social aspects of wellness.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
SWU	291	Social Service Delivery Systems	Introduces federal and state social service delivery systems as well as private social service agencies. Explores purpose and structure of community resources. During the semester, students must complete 40 hours of service learning in a social agency.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 with a D or better or currently enrolled; Pre or Co-requisites: SWU 171 or SWU 271 (with a C or better if completed)
SWU	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	295	Foundations of Social Work Practice	Theoretical foundation and skill base for effective culturally competent communication and interviewing with individuals, families, small groups, and larger systems.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.	SB & C	Pre-requisites: PGS 101, SOC 101 or SOC 301 with D or better; Pre or Co-requisites: SWU171 or 271 and SWU 291 with a C or better if completed
SWU	302	Human Biology for Social Workers	Overview of human anatomy and physiology, and the reciprocal relationship between physical and social environments. May be repeated for credit.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	303	Micro Human Behavior in the Social Environment	Human behavior in the social environment throughout the life cycle, analyzing theories of human development within an integrative multidimensional framework.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	L or SB	Pre-requisites: PGS 100, PGS 101, SOC 101 or SOC 301 completed with a D or greater or currently enrolled; Pre or Co-requisites: SWU 171, SWU 291 and SWU 295 (with a C or better if completed)
SWU	310	Social Work Practice I	Introduces social work methods, emphasizing the following skills: relationship development, cross-cultural interviewing, communication patterns, and case-recording.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: SWU 171 or SWU 271 with C or better; SWU 291 with C or better; SWU 295 with C or better; Pre or Co-requisite: SWU 303 (with C or better if completed)
SWU	320	Research Methods in Social Work	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: student must have completed SWU310 with a grade of C or greater or be currently enrolled or enrolling during the same term
SWU	321	Statistics for Social Workers	Teaches social work students how to use and interpret descriptive and inferential statistics in social work practice. May be repeated for credit.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	CS	Pre-requisites: MAT 142 or an MA general studies course
SWU	331	Social Policy and Services I	History, philosophy, and values of social welfare; function and role of social welfare in society; development of the social work profession and practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	H	Pre-requisites: must be a Social Work student and have completed the following with a C or greater or be currently enrolled: ECN 111 or 211, POL 110 or POL 310 or POS 110 or POS 310, SWU 171 or SWU 271, and SWU 291.
SWU	332	Social Policy and Services	Contemporary social, political, and economic issues. Special emphasis on poverty and inequality in the Southwest. Analysis and development of social welfare policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: student must have completed SWU310 with a grade of C or greater or be currently enrolled/enrolling AND must have completed ECN111 with a grade of D or greater or be currently enrolled
SWU	337	Early Childhood Intervention	Explores how child development theory affects practice with children and families, emphasizing development of young children and early intervention.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	340	Macro Human Behavior in the Social Environment	Human behavior in the social environment, focusing on groups, organizations and communities and examining theoretical perspectives in a macro context	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	Pre-requisites: SWU 303 (SWU 301) with C or better; Pre or Co-requisite: SWU 310 (with C or better if completed)
SWU	374	Diversity and Oppression in a Social Work Context	Issues of social inequality related to race, ethnicity, gender, sexual orientation, and disability. Emphasizes populations of the Southwest.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	Pre/Co-requisite: SWU 310 with C or better if completed
SWU	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		Pre-requisite: Master of Social Work student
SWU	402	Human Behavior in the Social Environment II	Sequel completing study of life span development and behavior which forms base for social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	SB	Pre-requisites: SWU 303 with C or better
SWU	410	Social Work Practice II	Knowledge and skills in social work practice with individuals and families.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Social Work undergraduate; SWU310 with C or better; PHI 101, 105 or 306 with D or better; Co-requisites: SWU 412 and SWU 413
SWU	411	Social Work Practice III	Knowledge and skills in social work practice with groups, communities, and organizations.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU414 and SWU415 AND must be a Social Work major or must have completed SWU410, SWU412, or SWU413 with a grade of C or greater or be currently enrolled
SWU	412	Field Instruction I	16 hours a week of supervised practice in an approved placement. "Y/E" grade only. fee.	N	PRA	N	YGB	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU410 and SWU413; must have completed SWU310 with C or better; Must be a Social Work major
SWU	413	Field Instruction Seminar	Field-focused seminar, including practice evaluation.	N	DIS	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: must be taken concurrently with SWU410 and SWU412; must have completed SWU 310 with C or better; Must be a Social Work major
SWU	413	Field Instruction Seminar	Field-focused seminar, including practice evaluation.	N	DIS	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Must be co-enrolled in SWU 410 AND SWU 412
SWU	414	Field Instruction II	16 hours a week of supervised practice in an approved placement. Y/E grade only. fee.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Social Work student; SWU 410, SWU 412 or SWU 413 with C or better Co-requisites: SWU 411 and SWU 415
SWU	414	Field Instruction II	16 hours a week of supervised practice in an approved placement. "Y/E" grade only.	N	LEC	N	OPT	College of Public Programs	School of Social Work	5.		Pre-requisites: must be co-enrolled in SWU 411 and 415, and completed SWU 410 and SWU 413 with a grade of C or greater or be currently enrolled.
SWU	415	Integrative Field Seminar	Field-focused seminar to help students integrate practice and theory.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Prerequisite(s): Social Work student; SWU 410, SWU 412 or SWU 413 with C or better; Corequisite(s): SWU 411 and SWU 414
SWU	415	Field Instruction Seminar II	Field-focused seminar, including practice evaluation. 1.5 hours a week.	N	LEC	N	OPT	College of Public Programs	School of Social Work	1.		Pre-requisites: must be co-enrolled in SWU 411 and 414, and have completed the following with a grade of C or greater or be currently enrolled: SWU 410, SWU 412, and SWU 413.
SWU	420	Practice-Oriented Research	Applies scientific principles to field practice, problem formulation, intervention procedures, and impact assessment in social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		

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SWU	432	Social Policy and Services	Contemporary social, political, and economic issues. Special emphasis on poverty and inequality in the Southwest. Analysis and development of social welfare policies and programs.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisites: Social Work student; SWU 310 with C or better; ECN 111 or ECN 211 with D or better; POS 110 or 310 with D or better; Co-requisites: SWU 410, SWU 412, and SWU 413
SWU	442	Introduction to Practice with Children and Families in Child Welfare	Focuses on the characteristics, strengths, and service needs of families and children in the Child Welfare System.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Social Work student and have earned C or better in SWU 410, 412, and 413 or be currently enrolled.
SWU	444	Issues in School Social Work	Demonstrates how community, family, and school are interdependent using an ecological metaphor, and introduces school social work.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.		Pre-requisite: Must be Social Work student and have earned C or better in SWU 410, 412, and 413 or be currently enrolled.
SWU	455	Social Work Practice Skills with Latinos	Focuses on communication skills necessary and appropriate for social work practice with Spanish-speaking clients and their families. Credit is allowed for only SWU 455 or SWG 555.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	457	Southwest Borderland Immigration Issues	Reviews immigration history, trends, policies, and legislation. Focuses on immigrant experience from economic, educational, social, political, familial perspectives in Southwestern U.S. Credit is allowed for only SWU 457 or SWG 557.	N	SEM	N	OPT	College of Public Programs	School of Social Work	3.		
SWU	474	Ethnic/Cultural Variables in Social Work	Basic conceptual approach to understanding ethnic and cultural variables of southwestern ethnic minorities and how these factors influence social work practice.	N	LEC	N	OPT	College of Public Programs	School of Social Work	3.	C	Pre-requisite: must have completed SWU 310 with a grade of C or greater or be currently enrolled
SWU	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Social Work	1-6		
SWU	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Social Work	1-6	L	Pre-requisite: must be an honor student
SWU	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-4		
SWU	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Social Work	1-7		
SWU	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Social Work	1-3		Pre-requisite: Bachelor of Social Work student
TA	488	Elem Air Transport		Y	LEC	Y	CNV	Ira A. Fulton Engineering	INACTIVE - Dept Aeronautical Management Technology	3.		
TCL	101	Introduction to Transborder Chicana/o and Latina/o Studies	Historical and contemporary issues in Chicana/o and Latina/o communities; focuses on the diverse economic, sociological, cultural, and political status.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	111	Introduction to Transborder Chicana/o and Latina/o Culture	Interdisciplinary analysis of customs, values, belief systems, and cultural symbols; special attention is given to cultural continuity and change.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	N	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-3		
TCL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	201	Transborder Society and Culture I: Interdisciplinary Approaches	Intensive overview of Mexican origin and Latina/o populations through various sociological, historical, anthropological, economic, political, cultural, literary, and analytical lenses.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	202	Transborder Society and Culture II: Contemporary Issues	Examines contemporary transborder belief systems, ideologies of health, gender, familial structures, and community development within a transnational context.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	
TCL	210	Introduction to Ethnic Studies in the U.S.	Covers diversity of experiences and relations among racial and ethnic groups in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	211	Transborder Chicano/a and Latino/a Poetry	Writing seminar on Chicana and Chicano poetics and intensive creative writing workshop.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	220	Transborder Chicano/a and Latino/a Cultural Expression	Interrelation among economic, social, and political status and forms of artistic expression; i.e., music, dance, drama, literature, and graphic arts.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	270	Race and Gender in American Film	Explores how Hollywood shapes perceptions of race and gender in American society. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	Credit is allowed for only FMS 270 or TCL 270
TCL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	303	Transborder Theory	Studies historical, cultural, and economic theories contributing to understanding the emergence of Mexican and Latina/o origin populations in the Americas.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	304	Transborder Research Methods	Emphasizes critical skills: quantitative/qualitative, spatial, archival, and reflexive methodologies, including ethnographic, biographical, historical, and mapping.	N	RSC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		

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TCL	305	Transborder Practicum and Field Research.	Field work with faculty incorporating practical experience while honing research skills and ability.	N	FLD	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre or Co-requisites: TCL 303 and TCL 304 with a D or better if completed
TCL	310	Transborder Chicano/a and Latino/a Folklore of Southwest North America	Analyzes Chicana and Chicano folk beliefs, traditions, and practices.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	314	Transborder Regional Immigration and Economy	Historical/contemporary overview of Mexican immigration into and within the U.S.; factors affecting population movement, settlement patterns, and migrants' incorporation into society.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or SB) & H & C	
TCL	315	Chicana/o and Latina/o Family Structures	Traditional and changing family relationships; emphasis on gender and intergenerational relations and impact of modern society on traditional family values.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	
TCL	321	Transborder Community Development and Health	Emphasizes core concepts and practices relevant to regional community development and health, including demographic health indicators, individual, and community models.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites: ENG 102, 105, or 108 with C or better
TCL	323	Latino Health Issues	Health issues among Chicanos and other U.S. Latinos; interplay among political economy, health, family, culture, and community.	N	LEL	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	4.	SB & C	
TCL	326	Health of Chicanas and Latinas	Examines gender, ethnicity, and health; critical issues affecting health status of Chicanas and Latinas.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	Pre-requisites: ENG 102, 105, or 108 with C or better
TCL	327	Health and Migration	Focuses on health status among various immigrants; health trajectories following migrations, adaptive behaviors, health practices, and the role of policy.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	Pre-requisites: ENG 102, 105, or 108 with C or better
TCL	328	Latina/o and Latin American Religions and Cultures	Surveys the formative myths, rituals, and symbols and religious expressive cultures of U.S. Latinos and Latin Americans.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	331	Mexican American History to 1900	Mexican American history from pre-Hispanic origins to frontier journeys north through 19th-century life in the U.S. Southwest.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & H & C	
TCL	332	Mexican American History Since 1900	Traces the formation of Mexican American communities across the rural and urban U.S. and examines 20th-century immigration from Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & H & C	
TCL	335	Historical Studies in Race, Crime, and the Law	Studies the historical relationship between the criminal justice system in the United States and a segment of society that has traditionally faced official and unofficial discrimination: American racial minorities. Focuses on the experiences of Mexican Americans and Africans Americans with the criminal justice system.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites:Completed ENG 101 & ENG 102 with a grade of C or better. If credit has been received in HST 323 or AFR 335, you may not enroll in TCL 335
TCL	340	Chicana/o and Latina/o Politics and Policy	Historical/contemporary analysis of Chicana and Chicano political ideologies, attitudes, strategies, and movements; relations with governmental agencies; and public policy issues.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	
TCL	341	Policy Issues in Chicana/o and Latina/o Urban Settings	Historical, demographic, and sociological overview of the status of Chicanas and Chicanos in urban settings as well as the public policy relevance.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	342	Social Demographics of Latino Populations	Provides an introduction to social demography of Latinos in the U.S. from the 19th century to the present.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	
TCL	350	Transborder Mexican and Chicano/a Artistic Production	Overview of Mexican and Mexican American artistic production from colonial times to present; emphasis on religious and folk art.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C & G	
TCL	351	Transborder Chicano/a and Latino/a Art	Intensive analysis of contemporary Chicana and Chicano art movement as appraised within the context of contemporary American art and the art of Mexico.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	
TCL	352	Chicana/o Film	Explores how Chicano and Chicana filmmakers have interpreted the Chicano experience through the medium of film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	363	Transborder Mexican and Chicano/a Literature of Southwest North America	Development of Chicana and Chicano literature; study of genres and themes; attention to literary antecedents.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	Pre-requisites:If you have credit for ENG 363, you may not enroll in TCL 363. Completed ENG 101, or ENG 107, or ENG 105 with a D or better or be currently enrolled
TCL	364	Transborder Chicana/o and Mexican Literature of Southwest North America Before 1917	Offers a historical panoramic view of the political, intellectual, social, economic, and artistic development of the Spanish-speaking people of the Southwest. May be taught in Spanish.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	Pre-requisites: SPA 314 or 316 with C or better
TCL	370	Signs of Aliens: Semiotics of Film and Popular Culture	Introduces semiotics and cultural studies; looks at various meanings ascribed to the sign of the alien.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU	
TCL	373	Latina/Chicana Issues	Examines the roles Mexican American, Chicana, and/or Latina immigrant women play historically, socially, and politically in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
TCL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	410	Race, Medicine, and the Body	The ways in which medicine, disease, and health outcomes are affected by culture, gender, and social location.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L	
TCL	422	U.S.-Mexico Border Health	Focuses on identifying health issues affecting Latino/Mexican families in the U.S.-Mexico borderlands using basic epidemiological techniques to analyze regional data.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		Pre-requisites: TCL 321 with C or better

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TCL	424	Theory and Practice of Community Development and Health	Foundations of methodology of community mapping and establishment of community diagnosis, media literacy and advocacy applications for community-based public health.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB	Pre-requisites: TCL 321 with C or better
TCL	443	Political Ecology of the Border	Using a political ecology approach, focuses on the creation of border communities of Southwest North America.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & G	
TCL	444	The Ethnography of Mexican Border Rural Settings	Focuses on the internal characteristics of a selected Mexican rural border towns and villages; analyzes the dynamics of development.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	SB & G	
TCL	445	Transborder Latin American Short Story	Studies the modern Latin American short story, with primary focus on the development of its literary and cultural tradition. Uses a transregional and transborder approach, focusing on the interconnections of this modern genre across the borders of Spanish América. Takes a long historical view of the genre by reading representative stories of important literary movements and the aesthetic and cultural values they promoted and fostered.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L or HU	
TCL	446	Comparative Bilingual Latina/o Poetics	Comparative study of contemporary bilingual Latina/o poetry. Focuses on two specific U.S. ethnic ¿minority¿ groups--Mexican- (or Chicanos) and Puerto Rican-Americans (or ¿nuyoricans¿)--who have long and strong literary traditions of bilingual poetry. The significant feature of both bodies of poetry is the interactive mixture of their base languages: Spanish and English.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	
TCL	464	Latina/o Literature	Development of Latina/o literature. Study of genres and themes; attention to literary antecedents of the new U.S.-based Latina literature.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	Pre-requisites:If you have credit for FMS 464, you may not sign up for ENG 458/TCL 464
TCL	465	Chicana/o and Latina/o History on Film	Explore history on film; the processes, developing critical perspectives about historiography, and film in relation to U.S.-Mexican borderlands.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU & C	Pre-requisites: ENG 102, 105, or ENG 108 with a grade of C or better. May not enroll in TCL 465 if received credit for FMS 465
TCL	466	Constructing the Border on Film	Explores the U.S.-Mexico border on film, examining how border images have been constructed and shaped over time.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	C	
TCL	470	Race, Sex, and Identity Online	Relying on critical and cultural theory, addresses the relationship between race, sex, and social identity online.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	HU	Pre-requisites: ENG 102, 105 or 108 completed with a C or better; You may not enroll in TCL 470 if you have credit for FMS 470
TCL	471	Latinos In Hollywood	Studies representations of Latinos in film; stereotyping, politics of metaphor, allegory, star discourse, self-representation, resistance, and independent film.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.		
TCL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-12		
TCL	485	Chicana and Latina Writers	Critical reading of Mexican American women authors; emphasis on contemporary (post-1970) poetry, novels, short stories, and essays.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	(L or HU) & C	
TCL	488	Border Global Narratives	Studies four general and different border areas through literature. Through literary-cultural texts, looks into peoples¿ experiences of migration to and from the homelands of Mexico, Haiti, the Dominican Republic, Cuba, and the Puerto Rican isle to the U.S. These experiences are never uni-directional but are characterized by constant back-and-forth movement.	N	LEC	N	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	3.	L & C	
TCL	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-6		
TCL	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-6	L	Pre-requisites: Must be an Honors student
TCL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		
TCL	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-7		
TCL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This course may be taken only by outstanding senior students who have completed at least one semester in residence and who have a cumulative GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.	N	LEC	Y	Z1	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-3		
TCL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Dept of Transborder Chicana/o & Latina/o Studies	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TDM	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students. Must have taken 25 or fewer semester hours. Consulting an academic advisor before enrolling is recommended.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-3		
TDM	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	205	Introduction to Travel and Tourism	Examines the components of the travel and tourism industry at the state, national, and global levels.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	
TDM	210	Community Services and Professions	Introduces the system of public, nonprofit, and private sector resources and services comprising contemporary communities. Organized into three modular units with emphasis on the delivery of services in the parks and recreation, tourism, and nonprofit professions.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre- or Co-requisites: PRM 120 (or REC 120) with C or better if completed; must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	298	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	301	Sustainable Communities	Analyzes community as concept and as an organizing system for promoting sustainability.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-or co-requisites: PRM 120 (or REC 120) with a C or better if completed
TDM	302	Inclusive Community Development	Examines the characteristics of diverse populations across the lifespan to effectively develop inclusive community programs and services.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	C	Pre-or Co-requisites: PRM 120 (or REC 120) with a C or better if completed
TDM	325	Tourism Accommodations	Local, national, and international overview of the lodging and food service industries.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: must have completed REC305 or TDM205 with a grade of C or better or be currently enrolled
TDM	345	Meeting and Convention Planning	Basic aspects and skills in planning meetings and conventions. Industry and market overview of certified meeting planners.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: REC 305 or TDM 205 with C or better
TDM	350	Tourism Marketing	Critical examination of marketing principles; applications to travel, tourism, and related industries in diverse settings, including local, national, and international.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: TDM 205 (REC 305) with a C or better or be currently enrolled; must have completed at least 45 hours
TDM	360	Policy, Planning, Development of Recreation and Tourism Resources	Investigates the policy, planning, development, and management practices related to the provision of recreation and tourism opportunities.	N	FLD	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
TDM	372	Tourism Planning	Applies economic and regional development concepts and theories to destination product development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	L	Pre-requisites: Tourism Development & Mgmt or Recreation (Tourism) students; min 2.50 gpa; minimum 45 hours; TDM 205 (REC 305) with C or better; ENG 102 with C or better; MAT 142 or higher with D or better
TDM	386	Convention Sales and Management	The role of convention and visitors bureaus or resort managers, including economic impacts of markets, structure, governance, membership, and advertising.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
TDM	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	401	Management of Parks and Recreation Services	Basic principles of administration and their application in successful administrative situations. Analyzes administrative function, structure, and policies.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must be a Tourism Development & Mgmt or a Recreation (Tourism Management) student; Pre- or Co-requisite: TDM 372 (with a C or better if completed)
TDM	402	Assessment and Evaluation of Community Services	Introduces applied leisure research with emphasis on program evaluation, research design, data collection techniques, and data analysis.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-or Co-requisites: TDM 401 or REC 462 (with a C or better if completed); must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	403	Pre-Internship Workshop	Introduces and prepares professional status students for the Senior Internship. Includes both workshop and online delivery.	N	LEC	N	YGB	College of Public Programs	School of Community Resources and Development	1.		Pre- or Co-requisites: TDM 401 (or REC 462) with a C or better if completed; must be a Tourism Development & Management or a Recreation (Tourism Management concentration)
TDM	415	Tourism Transportation Systems	Examines the role of various modes of transportation in domestic and international tourism development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: Must have earned grade of C or better in REC305 or TDM205 or be currently enrolled.
TDM	448	Heritage and Cultural Tourism	Provides a solid conceptual understanding of the issues, problems, and management implications associated with heritage and cultural tourism.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or REC 120 with a C or better or be currently enrolled
TDM	458	International Tourism	Global examination of international tourism and its significance as a vehicle for social and economic development.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.	G	

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TDM	463	Senior Internship	Supervised guided experience in selected agencies. Fee.	N	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	6-12		Prerequisites: TDM 402 (or REC 482) and TDM 403 (or REC 499 Pre Internship Workshop) with a C or better or currently enrolled; Must be a Tourism Development and Management or Recreation (Tourism concentration) student
TDM	480	Nature-Based Tourism	Examines the interaction of tourism with culture, natural environment, as well as the impacts of tourism on the environment.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		Pre-requisites: PRM 120 or TDM 205 with a D or better or currently enrolled
TDM	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-12		
TDM	492	Honors Directed Study		N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Community Resources and Development	1-6	L	Pre-requisites: Must be an Honors student
TDM	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-4		
TDM	497	Honors Colloquium		Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-6		
TDM	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Public Programs	School of Community Resources and Development	1-7		
TDM	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Public Programs	School of Community Resources and Development	1-3		
TEL	501	Introduction to Research and Evaluation in Education	Overview of educational inquiry from controlled, quantitative to qualitative, naturalistic. Emphasizes locating and critically interpreting published research.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	504	Learning and Instruction	Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	505	American Education System	Political, social, historical, and philosophical analyses of American education at all levels. Examines primary sources, legal findings, and case studies.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	N	LEC	N	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-4		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	683	Field Work	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)

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TEL	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		
TEL	700	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	GRD	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	701	Assessment Policies, Issues, and Practices	Critical thinking about assessment data and other information sources to make inferences, judgments, and predictions about reality in schools.	N	LEL	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	702	Dynamic Contexts of Education	Explores current ethical issues influencing leadership decisions with a focus on real problems in the educational setting.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	703	Innovation in Teaching and Learning	Development and psychological processes of human cognition, motivation, and performance applied to cognitively diverse, English language learners, adult professional development.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	704	Leading Change in Educational Organizations	Develops understanding of dynamic and systemic nature of organizations, with emphasis on leadership for building organizational capacity and learning	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	711	Strategies for Inquiry	Develops knowledge and skills for research and program evaluation that foster innovation in education that leads to improved student learning.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	712	Mixed Methods of Inquiry	Methods for combining qualitative and quantitative inquiry in action research, evaluation, and data-based decision making.	N	SEM	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	713	Applied Mixed Methods of Inquiry	Data collection, analysis, interpretation in studies combining qualitative and quantitative inquiry in action research, evaluation, and data-based decision making.	N	LEC	N	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	3.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	793	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	N	LEC	Y	OPT	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-12		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	795	Continuing Registration		N	LEC	Y	Z3	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1.		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Teacher Education & Leadership	Educational Leadership & Innovation, Division W	1-15		Pre-requisites: Graduate student (degree seeking or nondegree seeking)
TEL	111	Exploration of Education	Education as an instrument in the development of the individual and society and its significance as an American Institution.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	SB	
TEL	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	212	Understanding the Culturally Diverse Child	Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
TEL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	311	Instruction and Management in the Inclusive Classroom	Planning and delivering instruction, organizing and managing classrooms, and making adaptations for English language learners and students with special needs. Fee.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program

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TEL	313	Educational Technology in the K-12 Curriculum	Applies and integrates educational technologies in all curricular areas; examines theoretical and practical issues for diverse learners. Fee.	N	LEL	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
TEL	314	Classroom Assessment	Assessment and evaluation of student learning; emphasizes integration and adaptation of curriculum, instruction, and evaluation of all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.		Pre-requisites: Admission to Professional Teacher Preparation Program
TEL	315	Child and Adolescent Development	Physical, cognitive, social, and emotional development during childhood and adolescence; developmentally appropriate principles and practices to facilitate development for all students.	N	LEC	N	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	L or SB	
TEL	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1.		
TEL	492	Honors Directed Study		Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
TEL	493	Honors Thesis		Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-6		
TEL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
TEL	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-3		
THA	101	Elementary Thai I	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose readings in Thai script. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
THA	102	Elementary Thai II	Basic communication, reading, and writing skills. Intensive oral/aural classroom drill supplemented by prose reading. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:THA 101 with a grade of C or better
THA	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
THA	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	201	Intermediate Thai I	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:THA 102 with C or better
THA	202	Intermediate Thai II	Systematic review of grammar. Continued development of communication skills with increased emphasis on reading and writing. Fee.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:THA 201 with a grade of C or better or currently enrolled
THA	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
THA	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
THE	307	Acting:		N	LEC	N	CNV	Herberger College of the Arts	School of Theatre and Film	3.		
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisite(s): non-Theatre and non-Film students only
THE	125	Orientation to Theatre and Film	Orientation to university and school resources and procedures. Career planning and guidance. Community-building exercises. Attendance and written response to performance and media events. Required for BA Theatre and BA Film (film and media production concentration) majors.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisites: Theatre and Film students only
THE	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THE	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	220	Principles of Dramatic Analysis	Analysis, evaluation, and interpretation of dramatic literature for theatrical production. Emphasizes the traditional canon of dramatic literature and traditional structures and forms of drama.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	L or HU	Prerequisites: Herberger Institute students in specific majors; Must have completed THE125 with a B or greater; Must have completed ENG101, 105 or 107 with a C or greater
THE	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THE	301	Film: the Creative Process II	Advanced study of contemporary cinema history and film techniques; analyzes social changes in film, multicultural filmmaking, and the star system.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites: Must have completed FMP201 or THE300 with a D or greater or be currently enrolled
THE	320	History of the Theatre I	Traces major developments in theatre production from its beginning to the 17th century.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites: Must have completed THE220 with a C or greater or be currently enrolled
THE	321	History of the Theatre II	Traces major developments in theatre production from the 17th century to modern times.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites: Must have completed THE220 and THE320 with a C or greater or be currently enrolled
THE	322	Theatre History and Culture	Critically examines major developments in theatre history, historiography, and dramatic literature.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & H	Prerequisites: Must NOT be a Theatre student
THE	325	Play Reading for Educational Theatre	Assigned independent readings in plays for secondary school play production.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisites: Must be a Theatre student
THE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	403	Independent Film	Examines the independent film movement from the French New Wave to contemporary independent filmmakers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	404	Foreign Films and Filmmakers	Films and filmmakers from Europe, Asia, Australia, the Far East, South America, and the Caribbean. Emphasizes cultural content and filmmaking philosophies.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	G	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	405	Film: Great Performers and Directors	Examines processes and influences of one or more great film performers and/or directors. May be repeated for credit when topics vary. Fee (hybrid/Internet).	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	406	American Multicultural Film	Examines Native, African, Asian, and Latina and Latino American films and film artists in cinema history and production. Fee (hybrid/Internet).	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU & C	Prerequisites: Must have completed ENG102, ENG105 or ENG108 with a C or greater or be currently enrolled
THE	421	Shakespeare: Stage and Film	Examines Shakespeare's plays as written texts, stage performances, and film productions. Focuses on play reading, performance analysis, and film critique. Online course.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	HU	Pre-requisites: ENG 102(or Eng 105, or 108) with a grade of D or better, or currently enrolled
THE	422	Latina and Latino Theatre	Readings, discussion, video of dramatic literature and production styles of Latina and Latino playwrights and theatre companies in the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: ENG 102, ENG 105 or ENG 108 with a C or greater or currently enrolled OR Theatre Masters students
THE	423	African American Theatre	Readings, discussion, video of the history and dramatic literature of African American playwrights and theatre companies in the United States.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	C	Prerequisites: Must be a Masters student , or must have completed ENG102, ENG105, or ENG108 with a C or greater or be currently enrolled
THE	424	Trends in Theatre for Youth	Surveys the history, literature, and contemporary practices in theatre for youth.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THE	426	Pre-Columbian Theatre of the Americas	Selected studies in pre-Columbian theatre forms and texts of the Aztecs, Mayans, Caribbean islands, and North American Indians.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed ENG102, ENG105, or ENG108 with a C or greater or be currently enrolled OR be a Masters Theatre student
THE	430	History of Costume: Western Tradition	Studies major costume styles throughout history of Western civilization and how these fashions reflected society. Explores how styles can be used by theatrical costumers.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THE	440	Experimental Theatre and Performance	Explores 20th-century modernist theatrical forms and movements and development of alternative strategies for analyzing contemporary theatre and performance.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Theatre undergraduate student; THE 220 and THE 320 with C or better
THE	480	Methods of Teaching Theatre	Applies materials, techniques, and theories for theatre with 9th- through 12th-grade students. Emphasizes curriculum development and praxis.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisite: Junior standing and above. Students who have credit for THE 581, may not enroll in THE 480
THE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	492	Honors Directed Study		N	RSC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		Pre-requisites: Must be a Fine Arts student; Must be an Honors student
THE	493	Honors Thesis		N	THE	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be a Fine Arts student ; Must be an Honors student
THE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-7		
THE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THE	500	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	504	Studies in Dramatic Theory and Criticism	Surveys dramatic theory, criticism, and aesthetics as they relate to contemporary performance.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THE	505	Critical Theory and Performance	Surveys contemporary theories of culture as they apply to theatre and performance studies.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THE	510	Studies in Literature	Assigned individual reading program in standard sources and masterpieces in theatre literature. May be repeated for credit.	N	RSC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisite: Must be a Theatre Education or Theatre for Youth student
THE	520	Theatre History and Literature	Surveys historiographical issues and dramatic literature related to key periods in theatre history.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THE	524	Advanced Studies in Theatre for Youth	In-depth study of the history, literature, and contemporary practice of theatre for young audiences.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must be a Theatre Education or Theatre for Youth student
THE	525	Advanced Studies in Theatre for Youth II	Project-oriented explorations of theory and practice of contemporary theatre for youth audiences.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: THE524 with a B or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THE	562	Literary Management Workshop	Advanced literary management for the contemporary theatre, including trends in new play development, festivals and productions throughout the United States. Participation in Arizona Playwriting Competition.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: THP560 with a B or better
THE	581	Methods of Teaching Theatre	Applies materials, techniques, and theories for theatre with 9th- through 12th-grade students. Emphasizes curriculum development and praxis. Credit is allowed for only THE 581 or 480.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Must be a graduate student. Students who have credit for THE 480, may not enroll in THE 581
THE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Graduate student
THE	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Art Theatre student
THE	600	Research Methods	Course on research methods in a specific discipline.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	695	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	RSC	Y	Z3	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THE	700	Research Methods	Course on research methods in a specific discipline.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Pre-requisite: Must be a Theatre Education or Theatre for Youth student or have instructor approval.
THE	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THE	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Theatre student
THE	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-15		
THE	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-15		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THE	100	Introduction to Theatre	Surveys theatre production from the Greeks to contemporary theatre.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
THE	201	Film:Creat Procss I	Elements of the theatrical film: cinematography, sound, editing, directing, acting, scriptwriting, producing, and criticism.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
THE	320-W	History of the Theatre	Traces major developments in theatre production from its beginning to the 17th century.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
THE	321	History of Theatre	Traces major developments in theatre production from the 17th century to modern times.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & H	
THE	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THE	420	History of the American Theatre	History of the plays, artists, and events in the development of American theatre from colonial to modern times.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		
THE	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THE	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7		
THE	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
THE	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THE	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	101	Acting Introduction	Introduces basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must NOT be a Theatre student
THP	102	Acting I: Fundamentals	Explores and applies basic principles of acting. Topics include terminology, scene and character analysis, exercises and improvisation, audition preparation.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student
THP	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THP	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	201	Theatre Production Crew	Participation in university mainstage theatre production backstage and board operations.	N	LAB	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		
THP	202	Acting II: Realism	Rehearsal techniques and application of action to dramatic text. Emphasizes realistic drama.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Completed THP101 or THP102 with a B or better; Completed THE 220 with a C or better or be co-enrolled in THE 220
THP	213	Introduction to Technical Theatre	Procedures of technical theatre production and demonstration. Topics include design and construction of scenery, lighting, and properties. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	4.		Prerequisites:Must be a Theatre student
THP	214	Introduction to Costuming	Basic principles of costume design, construction, and survey of selected historical periods including makeup styles. Costume design project and production experience. fee	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	4.		Prerequisites:Must be a Theatre student
THP	218	Directing I: Introduction to Directing	Overview of emergence and practice of the director's craft. Explores director's role and responsibilities, play selection, conceptualizing, ground plans, blocking. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Fine Arts Theatre student; THE 220 AND THP 102 with a C or greater .
THP	251	Student Production Board	Performing arts entrepreneurship taught through the experience of operating a student-produced theatre company.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	260	Introduction to Playwriting	Basic skills of playwriting including exercises in monologues, scenes, and conflict and resolution, leading to completion of a one-act play.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG101,105 OR 107 with a C or greater or be currently enrolled

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THP	261	Introduction to Screenwriting	Basic skills of screenwriting including exercises in conflict and resolution, plot points, and theories of three-act structure and design.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed ENG101,105 OR 107 with a C or greater or be currently enrolled
THP	272	Acting: Introduction to Movement	Movement vocabulary and physical training in relaxation, alignment, conditioning, and stage presence. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: THP101 or THP102 with B or better; THE 220 (or concurrent enrollment) with C or better
THP	277	Acting: Introduction to Voice	Exercises and techniques to free the voice and improve quality and projection. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: THP101 or THP102 with B or better; THE 220 (or concurrent enrollment) with C or better
THP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	301	Theatre Production	Participation in university mainstage theatre productions (e.g., acting, construction, stage management).	Y	LAB	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-2		Prerequisites:Must have completed THP213 or THP214 with a C or greater or be currently enrolled
THP	302	Acting III: Advanced Techniques	Advanced practice in methods, skills, and research for rehearsal and performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 101 (or THP 102), THP 202, THP 272, THP 277 and THE 220 with C or better
THP	307	Acting: Research and Performance	Acting in theatre projects, productions, or collaborative performances in directing classes.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisites:Must have completed THP101 or THP102 with a C or greater or be currently enrolled.
THP	311	Improvisation with Youth	Basic materials, techniques, and theories for facilitating improvisational drama with children and youth. Not open to freshmen.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must NOT be a Freshman student
THP	312	Puppetry with Children	Construction and manipulation of puppets; practice in performance skills. Emphasizes educational and recreational uses of puppetry by and with children. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must NOT be a Freshman or Sophomore student
THP	313	Fundamentals of Design	Art and practice of scenic, costume, and lighting design for the theatre and the media.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP213 or THP214 with a C or greater or be currently enrolled
THP	317	Stage Management	Readings in stage management and participation as a stage manager in a university theatre production.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Theatre student; Corequisite: THP301
THP	318	Directing II: Intermediate Directing	Explores approaches to staging and composition. Studio work culminates in presentation of a fully rehearsed ten-minute play.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP218 AND THP213 or THP214 with a C or greater or be currently enrolled
THP	320	Acting: Solo and Collaborative Performance	Creation and development of original performance art works combining text, movement, multimedia, visual art; the actor as writer, designer, performer.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	322	Acting: Voice-Overs and Radio Drama	Applies effective vocal techniques to commercials, books on tape, radio dramas. Preparation of audition tape, performance in radio drama.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	331	Costume Construction	Uses of materials and techniques for stage costumes with actual construction of period apparel. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP214 with a C or greater or be currently enrolled.
THP	340	Scene Design	Studio projects in designing scenery for contemporary stages. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite:Must have completed THP 213 with a grade of C or greater and THE 220 with a grade of C or greater or be currently enrolled.
THP	345	Lighting Design	Principles and theory of stage lighting design, including design process and execution, equipment, and light plots. Fee.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Sophomore standing or above
THP	350	Sound Design	Introduces the equipment, process, and recording techniques used in sound design for the theatre. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a BA Theatre major OR a Fine Arts BFA student
THP	360	Intermediate Playwriting	Continued development of skills in playwriting through specific exercises and completion of a full-length play.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites:Must have completed ENG210 or THP260 with a C or better, or be co-enrolled in THP 260
THP	361	Intermediate Screenwriting	Character and dialogue development, choosing correct structure, importance of subplots, developing a story into a completed thirty-page screenplay.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 261 with D or better or currently enrolled
THP	372	Acting: Advanced Movement	Movement techniques for the classical and nonrealistic theatre.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP272 with a B or greater or be currently enrolled; must be junior academic level or higher
THP	377	Acting: Voice and Speech	Introduces phonetic alphabet, exercises, and techniques for voice and speech improvement. Application to performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP277 with a B or greater or be currently enrolled; Junior academic level or higher
THP	378	Acting: Stage Dialects	Major dialects needed for actors; techniques for researching and learning dialects; phonetic analysis of dialects.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP377 with a B or greater or be currently enrolled; Junior academic level or higher
THP	385	Acting: Classical and Poetic Drama	Rehearsal and performance of Shakespeare and other classical playwrights. Emphasizes understanding poetic language, vocal and physical skills.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP277 with a B or greater or be currently enrolled
THP	386	Acting: the Meisner Approach	Improvisations and exercises developed by Sanford Meisner applied to scene work.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP 101 or THP 102 with a B or greater or be currently enrolled
THP	387	Acting: TV and Film	Professional television and film acting techniques, terminology, and on-camera experience. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must have completed THP101 or THP102 with a B or greater or be currently enrolled OR must be a Film and Media Production student.
THP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	401	Theatre Practicum	Production assignments for advanced students of technical production, stage and business management, and design.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-2		Prerequisites: THP 301 with a C or better, or Master of Arts or Master of Fine Arts student
THP	406	Advanced Scenography	Process of production collaboration among scenographers, directors, and playwrights. Taught in conjunction with THP 519.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master in Fine Arts student; THP 340 plus one of the following: THP 214, THP 313, or THP 345 completed with a C or better
THP	411	Methods of Teaching Drama	Applies materials, techniques, and theories with grades K-8 youth. Regular participation with children.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites:Must be a Graduate student OR must have completed THP311 with a C or greater or be currently enrolled
THP	418	Directing III: Advanced Directing	Studio work building on skills learned in intermediate directing, culminating in the presentation of a fully rehearsed one-act play.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 318 with a C or greater or be currently enrolled OR Herberger Master of Art or Master of Fine Arts students

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THP	428	Theatre and the Future	Senior projects course that includes a culminating creative synthesis of student's knowledge.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student; THP201 or THP301 with C or better and THE440 with C or better (or enrollment in THE440 at time of registration)
THP	430	Costume Design	Principles of costume design with projects in both modern and period styles. Includes budgets and fabric/pattern estimates.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre Scenography or Performance Design student OR must have completed THP214 with a C or greater or be currently enrolled
THP	431	Advanced Costume Construction	Specialized training in costume construction problems and crafts with projects in tailoring, millinery, and period accessories.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP214 AND THP331 with a C or greater or be currently enrolled in both OR must be a Theatre Scenography or Performance Design student
THP	435	Advanced Technical Theatre	Selection of materials, drafting of working drawings, tool operation, and construction techniques.	N	LEC	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 AND THP345 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	440	Advanced Scene Design	Advanced studio projects in designing scenery for a variety of stage forms. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	441	Scene Painting	Studio projects in painting stage scenery. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP340 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	442	Drawing	Techniques in drawing and rendering for scenic, costume, and lighting design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre student
THP	444	Drafting for the Stage	Fundamentals of and practice in graphic techniques for the stage. Introduces computer-aided design for the stage. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP213 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student
THP	445	Advanced Lighting Design	Specialized techniques in stage lighting. Advanced application of design process, graphic techniques of design presentation, and use of qualities of light. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP345 with a C or greater or be currently enrolled OR must be a Theatre Scenography or Performance Design student AND have completed THP444 with a B or greater or be currently enrolled
THP	450	Theatre Organization and Management	Overview of nonprofit arts: organizational design, strategic planning, financial management, and leadership.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Theatre student
THP	451	Student Production Board	Performing arts entrepreneurship taught through the experience of operating a student-produced theatre company.	N	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: THP 450 with a grade of D or better, or co-enrolled
THP	460	Advanced Playwriting	Practice and study of creating characters, dialogue, scenes, plays, and monologues for the stage, culminating in a full-length script.	N	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must be a Fine Arts BFA student; Must have completed THP360 with a C or greater or be currently enrolled
THP	461	Scripts in Progress	Studio work with the instructor, centered on revisions of original plays.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisite: Must have completed THP460 with a C or greater or be currently enrolled
THP	481	Secondary School Play Production	Methods of directing, designing, and coordinating play production experiences at the secondary school level.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	482	Theatre for Social Change	Interactive theatre techniques (e.g., Boal, drama therapy, playback theatre) to examine and combat institutional, social, cultural, interpersonal, and personal oppressions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.	C	Prerequisite: Must be a sophomore academic level or higher
THP	483	Acting: Viewpoints and Composition	Training in Anne Bogart's viewpoints and composition techniques; application to rehearsal and performance, and creating new work.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: THP 202 with C or better or currently enrolled; Junior academic level or higher OR Master of Fine Arts student
THP	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Must be a Theatre or Film student
THP	489	Acting: Audition Techniques and Career Development	Familiarization with the business of performance; preparation and techniques for auditioning; self-promotion and marketing strategies; grant resources, interviews, and unions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Must have completed THP 101 or THP 102 and THE 220 with a B or greater; Junior academic level or higher
THP	492	Honors Directed Study		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6		
THP	493	Honors Thesis		N	LEC	N	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-6	L	Pre-requisites: Must be an Honors student
THP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		
THP	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-7		Prerequisites: Must be a Theatre student
THP	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-3		
THP	501	Performance: Solo Performance	Students begin to define their mission in art. Emphasizes the actor as a solo storyteller, speaking as herself or himself.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Prerequisites: Master of Arts or Master of Fine Arts Theatre student
THP	502	Graduate Acting	Understanding and analyzing scripts and performance in order to be an effective actor/storyteller who speaks as a character. Projects focus on solo, duet performances. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Arts or Master of Fine Arts Theatre student
THP	503	Performance: the Ensemble	Ensemble, working with a playwright, creates a play that addresses social issues through improvisation and community input.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Prerequisites: Masters of Art or a Masters of Fine Art Theatre student

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THP	504	Acting: Styles	Fundamentals including combat, scansion, poetic language, acting style. Scene study, ensemble performance projects focused on Shakespeare, new scripts. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-8		Pre-requisites: THP 503 with a D or better
THP	505	Graduate Colloquium	Orientation to graduate study of theatrical practice; cohort development, introduction to the advanced literature and media in the art form.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Pre-requisites: Master of Fine Art Theatre student
THP	506	Design Collaboration	Process of production collaboration. Taught in conjunction with THP 519. May be repeated for credit. fee	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Arts or Master of Fine Arts Theatre student;
THP	507	Acting: Advanced Research and Performance	Acting in advanced theatre projects, productions, or collaborative performance in directing classes.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisites: Master in Arts, Master in Fine Arts or PHD Theatre student
THP	509	Singing for Actors	Introduces the basics of singing technique. Breath control, resonance, articulation, exploration, and expansion of singing range.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1.		Prerequisites: Master in Arts, Master in Fine Arts or PHD Theatre student
THP	511	Methods of Teaching Drama	Applies dramatic materials, techniques, and theories with grades K-8 youth. Regular participation with children. Credit is allowed for only THP 511 or 411.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	512	Puppetry Workshop	Surveys puppetry in education, puppetry as an art form in design and performance. Fee.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Graduate student
THP	514	Projects in Community-Based Drama	Theories and techniques of improvisational theatre with emphasis on youth. Stresses professional development through projects combining research, theory, and practice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master in Arts, Master in Fine Arts or PHD Theatre student
THP	518	Advanced Directing Lab	Active discovery of directing concepts through practical exercises and collaboration; deconstruction of contemporary/classic literature. Explores director as primary artist.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	519	Directing: Works in Progress	Advanced projects in directing concentrating on a collaborative process among director, playwright, actors, and designers. Focuses primarily on new scripts or adaptations of literature. May be repeated for credit.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	520	Directing the New Play	Advanced methods and studies in directing, focusing on new play development.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	521	Performance I: Acting and Movement	Advanced studio work in the performer's body, voice, emotion, and imagination; emphasizes physical diagnostics and development.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	522	Performance I: Acting and Voice	Advanced studio work in the performer's voice; emphasizes physical awareness, vocal anatomy, training, and interpretation of texts.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	523	Performance II: Acting and Movement	Advanced studio work in the performer's body, voice, emotion, and imagination.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	524	Performance II: Acting and Voice	Advanced studio work in the performer's voice.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	525	Design I: Conceptualization and Collaboration	Conceptual structures of the design process in theatre; development of creativity, flexibility, and communication in the collaborative process.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	526	Design I: Drawing and Rendering	Development of drawing and rendering skills, techniques, and evaluation in the presentation, realization, and communication of performance design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	527	Design II: Conceptualization and Collaboration	Readings and research in stage management and participation as a stage manager in a university theatre production	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	528	Design II: Visualization and Presentation	Advanced skills and techniques in rendering, visualizing and presenting design ideas and materials for performance.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	529	Viewpoints and Composition		N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	530	Advanced Costume Design	Advanced studio projects in costume design for a variety of production forms.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Art or Master of Fine Arts Theatre student
THP	540	Scene Design Applications	Conceptual and practical application of the design process including graphic and sculptural projects. Practical design problems investigated in a lab. Fee.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Art or Master of Fine Art Theatre student
THP	545	Lighting Design Applications	Advanced studio projects in stage lighting design.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Fine Arts Theatre student
THP	555	Media Design Applications	Advanced applications for skills and practices in media design for live performance, including content creation, systems design, and playback.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Pre-requisites: Master of Fine Arts Theatre student
THP	556	Performance Technology		N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	560	Playwright's Workshop	Practice and study of creating characters, dialogue, scenes, plays, and monologues for the stage.	N	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Art Theatre student
THP	561	Scripts in Progress	Studio work with the instructor centered on revisions of original plays.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Theatre student
THP	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	582	Theatre for Social Change	Advanced, interactive theatre techniques (e.g., Boal, drama therapy, playback theatre) to examine and combat institutional, social, cultural, interpersonal, and personal oppressions.	N	STO	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		
THP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Fine Arts Theatre student

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
THP	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Theatre Master student
THP	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Pre-requisites: Fine Arts Graduate student
THP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-4		Pre-requisites: Fine Arts Graduate student
THP	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	THE	Y	Z2	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Art or Dramatic Writing Theatre student
THP	611	Research in Drama Education	Current research practices in drama education. Development and execution of research projects in ethnographic and arts-based models.	N	SEM	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	3.		Prerequisites: Master of Fine Arts or PhD Theatre for Youth student
THP	618	Theatre for Youth Practicum	Practical experience in theatre for youth projects: improvisation, education, production.	N	PRA	N	OPT	Herberger Inst Design & Arts	School of Theatre and Film	2-3		Prerequisites: Master of Fine Arts or PhD Theatre for Youth student
THP	649	Design Studio	Projects include design of scenery, costume, lighting, or sound for lab or mainstage productions.	N	STO	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-3		Prerequisites: Master of Fine Arts Theatre student
THP	680	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisites: Master of Fine Arts or PhD Theatre student
THP	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	SEM	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		
THP	693	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	783	Fieldwork	Structured, supervised field experience in a field science or other discipline requiring experience in field techniques.	Y	RSC	Y	OPT	Herberger Inst Design & Arts	School of Theatre and Film	1-12		Prerequisite: Master of Arts, Master of Fine Arts, or PhD Theatre student
THP	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
THP	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THP	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	PRA	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
THP	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
TMC	233	Desktop Publishing and Infographics	Introduces software and hardware used for desktop publishing and infographics.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
TMC	331	Quality Assurance	Instrumentation and methodologies for materials testing and quality control in various manufacturing processes.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Prerequisites: Must have received a D or better in ABS350 or APM301 or QBA221 or STP420 or be currently enrolled.
TMC	346	Management Dynamics	Management challenges and the leadership skills needed to achieve organizational objectives in the changing industrial and technical environments.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		

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TMC	396	Professional Orientation	Senior advising, industry presentations, and career counseling.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	1.		Prerequisites: Must be at least a Junior AND be a Tech Sci BAS or BS student.
TMC	470	Project Management	Introduces techniques for managing small groups within larger organizations, including team building, motivating, planning, tracking activities, and computer tools.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		Pre-requisites: Technology & Innovation BAS student OR IMC 346, IST 346, MGT 301 or TMC 346 with D or better and APM 301 or STP 420 with D or better. If you have credit for OMT 570, you may not enroll in TMC 470.
TMC	480	Senior Project	Capstone project experience refining skills in communication, research and information retrieval, critical analysis and criticism, and demonstrating technical competence in each student's area of study.	N	LEC	N	OPT	College of Tech & Innovation	Department of Technology Management	3.		
TMC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-4		
TMC	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Technology Management	1-7		Prerequisites: Must be a Tech Sci/Engr: NonDegree or BAS or BS or MS or MS Tech Plan AND have a 2.25 GPA or better.
TMC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-3		Prerequisites: Must be a Tech Sci: BAS or BS AND have 3.00 GPA or better.
TMC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TMC	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Technology Management	1.		Pre Requisites: Graduate or Non Degree Students Only
TMC	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Technology Management	1-12		Pre Requisites: Graduate or Non Degree Students Only
TRC	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	Graduate College	Center for Solid State Science	1-12		
TWC	200	Impact of Communications Technology on Society	Organizational issues and development of technical communication. Activities include research, evaluations, and presentation of oral arguments in support of positions.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Must have earned C or better in ENG 102, 105, or 108 or be currently enrolled
TWC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TWC	301	General Principles of Multimedia Writing	Introduces writing in a variety of media, understanding the consequences of integrating media, and effective editing techniques.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	347	Written Communication for Managers	Introduces strategies, formats, and techniques of presenting information to business and other workplace audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	
TWC	400	Technical Communications	Planning and preparing technical publications and oral presentations based on directed library research related to current technical topics.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: College of Technology and Innovation BS or BSE student; senior academic level; 2.25 minimum cumulative GPA; ENG 102, 105 or 108 with C or better
TWC	401	Principles of Technical Communication	Basic information design principles to produce effective written, oral, and electronic technical communication. Understanding of rhetorical and audience analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: If you have credit for TWC 501, you may not enroll in TWC 401
TWC	403	Writing for Professional Publication	Analyzes the market and examines the publication process, including the roles of the author, editor, and reviewer.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	411	Principles of Visual Communication	Basic principles of visual communication in print and electronic media. Understanding graphic and document design, including typography and color.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: Students who have credit for TWC 511, may not enroll for TWC 411

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TWC	421	Principles of Writing with Technology	Understanding historical and social impact of technology on writing, with emphasis on multimedia design, computer-mediated communication, and hypertext.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites: If you have credit for TWC 521, you may not enroll in TWC 421
TWC	431	Principles of Technical Editing	Basic principles of technical editing (for print and electronic media) including copyediting, reviews, standards, style, and project management.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:May not enroll in TWC 431, if credit received in TWC 531
TWC	443	Proposal Writing	Develops persuasive strategies and themes for researching and writing professional proposals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites:If you have taken TWC 543, you may not enroll in TWC 443
TWC	444	Manual and Instructional Writing	Design and development of a user manual, writing instructions, improving graphics and page design, and usability testing.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have credit for TWC 544, you may not enroll in TWC 444
TWC	445	Computer Documentation	Introduces writing documentation for the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you received credit for TWC 545, you may not enroll in TWC 445
TWC	446	Technical and Scientific Reports	Introduces strategies, formats, and techniques of presenting information to technical and scientific audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	L	Pre-requisites:If you have credit for TWC 546, you may not enroll in TWC 446
TWC	451	Copyright and Intellectual Property in the Electronic Age	Explores issues related to copyright and intellectual property laws, with emphasis on electronic environment. Credit is allowed for only TWC 451 or 551.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have credit for TWC 551, you may not enroll in TWC 451
TWC	452	Information in the Digital Age	Explores the creation, organization, dissemination, and use of information; the impact of technologies; and surrounding economic, legal, and social issues.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: Students who have credit for TWC 552, may not enroll in TWC 452
TWC	453	Information and Communications Technology in American History	Explores the historical development of information and related technologies in the United States from colonial times to the present. Credit is allowed for only TWC 453 or 553.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: If you have credit in TWC 553, you may not enroll in TWC 453
TWC	454	Information Technology and Culture	Explores the historical impact and intersection of communications technology and culture in America. Credit is allowed for only TWC 454 or 554.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	C	Pre-requisites: If you have credit for TWC 554, you may not enroll in TWC 454
TWC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	490	Capstone	Development of a professional portfolio, creation of a culminating document, and synthesis of undergraduate experience.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	492	Honors Directed Study		N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	1-6		
TWC	493	Honors Thesis		N	LEC	N	Z1	School of Letters & Sciences	School of Letters and Sciences	1-6	L	Pre-requisites: Must be an Honors student
TWC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
TWC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-3		
TWC	501	Principles of Technical Communication	Basic information design principles to produce effective written, oral, and electronic technical communication. Understanding of rhetorical and audience analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 501 who have credit in TWC 401
TWC	503	Writing for Professional Publication	Analyzes the market and examines the publication process, including the roles of the author, editor, and reviewer.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	511	Principles of Visual Communication	Basic principles of visual communication in print and electronic media. Understanding graphic and document design, including typography and color.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 511 who have credit in TWC 411
TWC	521	Principles of Writing with Technology	Understanding historical and social impact of technology on writing, with emphasis on multimedia design, computer-mediated communication, and hypertext.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 521 who have credit in TWC 421
TWC	531	Principles of Technical Editing	Basic principles of technical editing for print and electronic media, including copyediting, reviews, standards, style, and project management.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 531 who have credit in TWC 431
TWC	543	Proposal Writing	Develops persuasive strategies and themes for researching and writing professional proposals.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 543 who have credit in TWC 443
TWC	544	Manual and Instructional Writing	Design and development of a user manual, writing instructions, improving graphics and page design, and usability testing.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 544 who have credit in TWC 444
TWC	545	Computer Documentation	Introduces writing documentation for the computer industry.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 545 who have credit in TWC 445
TWC	546	Technical and Scientific Reports	Introduces strategies, formats, and techniques of presenting information to technical and scientific audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 546 who have credit in TWC 446
TWC	547	Business Reports	Introduces strategies, formats, and techniques of presenting information to business and other workplace audiences.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	551	Copyright and Intellectual Property in the Electronic Age	Explores issues related to copyright and intellectual property laws; emphasizes electronic environment. Credit is allowed for only TWC 551 or 451.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 551 who have credit in TWC 451
TWC	552	Information in the Digital Age	Explores the creation, organization, dissemination, and use of information; the impact of technologies; and surrounding economic, legal, and social issues. Credit is allowed for only TWC 552 or 452.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 552 who have credit in TWC 452

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
TWC	553	Information and Communications Technology in American History	Explores the historical development of information and related technologies in the United States from colonial times to the present. Credit is allowed for only TWC 553 or 453.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Students may not enroll in TWC 553 who have credit in TWC 453
TWC	554	Information Technology and Culture	Explores the historical impact and intersection of communications technology and culture in America. Credit is allowed for only TWC 554 or 454.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		
TWC	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-12		
TWC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	School of Letters & Sciences	School of Letters and Sciences	1-4		
UET	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-3		
UET	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	305	Introduction to Microelectronics	Quantifies the role of microelectronics technology and its associated skills as drivers for electronics systems development.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisite: Academic Level greater than or equal to Junior
UET	331	Electronic Materials	Physical, chemical, electromagnetic, and mechanical properties of electronic materials. Solid-state device characteristics and their material properties.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in Tech Sci/Engr: BS or BSE; 2.5 GPA or better; D or better in CHM113, EET208, PHY112, PHY114 or be currently enrolled in OR Tech Sci/Engr: Appl Bio Sys,BAS,MS,MS Tech, PhD
UET	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		
UET	411	Layer Deposition Technology	Fundamentals, applications, and vacuum technology of layer deposition processes used in IC fabrication. Credit is allowed for only UET 411 or 511.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Tech Sci/Engr :MS or MS Tech, BAS, BS, BSE AND have a C or greater in UET331 AND UET417 or be currently enrolled in or Co-enrolledUET331 and UET417.
UET	415	Electronic Manufacturing Engineering Principles	Electronic equipment design and fabrication principles and practice. Completion of electronics hardware design project and report.	N	LEL	N	OPT	College of Tech & Innovation	Department of Engineering Technology	2-3		Pre-requisites: Undergraduate Technology and Innovation or Fulton Engineering student; Minimum 2.25 GPA; OR Technology and Innovation or Fulton Engineering graduate student
UET	416	Dopant Control Technology	Design and practical realization of charge distribution in microelectronic devices, including ion implantation and diffusion processes. Credit is allowed for only UET 416 or 516.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25; UET331 and UET417 with C or better or Corequisite:UET417 OR Technology and Innovation or Fulton Engineering graduate student
UET	417	Semiconductor Technology Practice	Lab-based design and execution of safe and effective semiconductor fabrication operations.	N	LAB	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	418	Systems on Silicon	Factors that drive integration on silicon, including logic, memory, and interfaces. Economics of system-level solutions. Credit is allowed for only UET 418 or 518.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25 OR Technology and Innovation or Fulton Engineering graduate student. Students who have credit for UET 518, may not enroll in UET 418
UET	421	IC Device Characterization	Design and operation of the major classes of semiconductor devices. Characterization by parameters and their extraction. Future technology trends.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Have received a C or greater in UET331 or be currently enrolled AND be a Tech Sci: BAS or BS or MS or MS Tech or Grad Non Degree
UET	424	Pattern Transfer Technology	Maskmaking, lithography, and etch processes for integrated circuit fabrication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites:Must be in a Tech Sci Graduate Plan:MS or MS Tech AND have a C or greater in UET417, OR Corequisite:UET417; you may not enroll in UET 424 if you have credit in UET 524
UET	426	Software Tools for the Semiconductor Industry	Introduces software tools commonly used in the semiconductor industry, such as SUPREM IV, PSPICE, VIEWLOGIC, and ICED.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	432	Semiconductor Packaging and Heat Transfer	Packaging theory and techniques; hermetic and plastic assembly; thermal management; electrical characteristics and reliability.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25 OR Technology and Innovation or Fulton Engineering graduate student: credit allowed for either UET 432 or UET 532 only
UET	437	Process Control and Validation	Statistical process control and its application to IC fabrication. Design, control, and performance validation techniques throughout the manufacturing process. Lecture with Web support. Prerequisite: 300-level statistics course.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Technology and Innovation or Fulton Engineering graduate student; UET 417 with C or better or Co-enrolled: UET417
UET	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		
UET	492	Honors Directed Study		N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	1-6		

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UET	493	Honors Thesis		N	LEC	N	Z1	College of Tech & Innovation	Department of Engineering Technology	1-6	L	Pre-requisites: Must be an Honors student
UET	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; min GPA 2.25 OR Technology and Innovation or Fulton Engineering graduate student
UET	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-7		Prerequisites: Undergraduate Technology and Innovation or Fulton Engineering student; Minimum 2.25 GPA; OR Technology and Innovation or Fulton Engineering graduate student
UET	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-3		
UET	511	Layer Deposition Technology	Fundamentals, applications, and vacuum technology of layer deposition processes used in IC fabrication. Credit is allowed for only UET 511 or 411. fee	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		
UET	516	Dopant Control Technology	Design and practical realization of charge distribution in microelectronic devices, including ion implantation and diffusion processes. Credit is allowed for only UET 516 or 416.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	518	Systems on Silicon	Factors that drive integration on silicon, including logic, memory, and interfaces. Economics of system-level solutions. Credit is allowed for only UET 518 or 418.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better. Students who have credit for UET 418, may not enroll in UET 518
UET	521	Device Physics	Band structure of solids, electron hole-pairs, mobility, lifetime, fermilevel, pn junctions, diodes, and bipolar and MOS transistors.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Grad or Non Degree Grad student; 3.0 GPA or better, OR Senior level; Tech Sci student; 3.0 GPA or better
UET	524	Pattern Transfer Technology	Maskmaking, lithography, and etch processes for integrated circuit fabrication.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Pre-requisites: Students who have credit for UET 424, may not enroll in UET 524
UET	532	IC Packaging	IC packaging theory and techniques; assembly techniques, material issues; thermal management; electrical performance and reliability.	N	LEC	N	OPT	College of Tech & Innovation	Department of Engineering Technology	3.		Prerequisites: Must be Grad or Non Degree Grad and have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better. You may not enroll in UET 532 if you have credit for UET 432
UET	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Grad or Non Degree Grad student; 3.0 GPA or better. OR Senior level; Tech Sci student; 3.0 GPA or better
UET	584	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre-requisites: Grad or Non Degree Grad student; 3.0 GPA or better. OR Senior level; Tech Sci student; 3.0 GPA or better
UET	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	592	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	593	Applied Project	Preparation of a supervised applied project that is a graduation requirement in some professional majors.	Y	LEC	Y	Z1	College of Tech & Innovation	Department of Engineering Technology	1-12		Prerequisites: Must be Grad or Non Degree Grad student AND have a 3.0 GPA or better OR be a Senior AND a Tech Sci student AND have a 3.0 GPA or better.
UET	594	Conference and Workshop	Topical instruction, usually in compressed format, leading to academic credit. Often offered off campus to groups of professionals.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	595	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	LEC	Y	Z3	College of Tech & Innovation	Department of Engineering Technology	1.		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	College of Tech & Innovation	Department of Engineering Technology	1-4		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0
UET	599	Thesis	Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.	Y	LEC	Y	Z2	College of Tech & Innovation	Department of Engineering Technology	1-12		Pre Requisites: Graduate or Non Degree Students OR Undergrad TS/ES Senior with minimum GPA 3.0

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UNI	100	Academic Success at the University	Orientation to campus resources, study skills, and other academic and social issues for college students. Introduces an understanding of human diversity, values, and perspectives as they relate to student success.	N	LEC	N	OPT	University College	Dean, University College	3.		
UNI	101	Student Success Seminar	Understanding human diversity, perspectives, and values as they relate to student success. Orientation to ASU resources, study skills, and academic and social issues for students. Seminar, discussion.	N	SEM	N	OPT	University College	Dean, University College	1.		
UNI	150	Major and Career Exploration	Concepts and skills in the process of selecting a major: self-assessment, research, interviewing, and decision making. Exploration of ASU opportunities and investigation of career options.	N	DIS	N	OPT	University College	Dean, University College	1.		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	Dean, University College	1-4		
UNI	250	Choosing a Major	Advanced, one-hour career development course helps students make a thoughtful selection of major and consider the career direction that fits best for them. Students complete advanced assessments of interests, personality, and values; investigate relevant majors and careers, including connecting with working professionals; learn effective decision-making strategies; identify barriers and resources; and make connections to new major department.	N	DIS	Y	OPT	University College	Dean, University College	1.		Pre-requisites: UNI 150 Career Exploration with a C or better
UNI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	University College	Dean, University College	1-12		
UNI	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	Dean, University College	1-4		
UNI	110	Critical Reading and Thinking	Prepares students to be successful in college-level academics and helps them improve their critical reading and critical thinking skills.	N	LEC	N	OPT	University College	University Academic Success Programs	3.		
UNI	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	GNA	University College	University Academic Success Programs	1-4		
UNI	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	University College	University Academic Success Programs	1-4		
URB	100	Introduction to Urban and Metropolitan Studies	Introduction to study of urban governance. Explores city, civil society, and urban form from different cultures and historical periods. Credit is allowed for only URB 100 or 300.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	C	
URB	105	Introduction to Urban Governance	Introduces American city growth from past to present. Examines the background of major urban issues emphasizing governance, management, and policy. Credit is allowed for only URB 105 or 305.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	220	Introduction to Urban America	Investigates traditional and evolving forms of civic engagement and management. Examines leadership and organizational models to urban development and decision making.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	240	Urban Policy	Examines major theories about the purposes and processes of urban policy formulation, adoption, and implementation.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.	C	
URB	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	300	Urban and Metropolitan Studies	Examines the city using a multidisciplinary approach drawing from different historical, cultural, social, philosophical, and economic issues and concepts. Credit is allowed for only URB 300 or 100.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	301	Urban Research	Introduces the philosophy, scope, and methods of urban affairs research. Includes an overview of quantitative and qualitative methods and research design.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	302	Urban Theory	Examines the sociological, economic, and political theoretical positions underlying the development and evolution of metropolitan areas.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	305	Urban Governance	Examines major shifts and trends in urban America. Concentrates on the changing approaches to governance and policies of urban areas. Credit is allowed for only URB 305 or 105.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
URB	400	Senior Professional Seminar	Demonstrates completion of the urban studies program by synthesizing and applying core knowledge, skills, and abilities to significant urban issues.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	406	Public Administration & Community Development	Critically examines the concepts community and development and considers how important forces such as diversity, civic life, changes in social space, and globalization, affect our understandings about these concepts and influence our actions.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		Pre-requisites: URB 220 or URB 240 with C or better
URB	410	Urban Leadership and Collaborative Skills	Emphasizes the changing roles of leadership and collaboration in a complex, diverse, and dynamic urban environment.	N	LEC	N	OPT	College of Public Programs	School of Public Affairs	3.		
URB	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	Z1	College of Public Programs	School of Public Affairs	1-12		
URB	493	Honors Thesis		N	LEC	N	Z1	College of Public Programs	School of Public Affairs	1-6	L	Pre-requisites: Must be an Honors student

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URB	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	College of Public Programs	School of Public Affairs	1-4		
USL	210	Service Learning: Independent Placement	Provides community experiences and reflection opportunities that examine community needs, the importance of civic engagement, and the effects of social injustice on our society. Students dedicate 70 hours at a preapproved site (including Title I K-12 schools, youth programs, health services, social services, environmental programs, government agencies) directly serving a population in need or supporting activities that contribute to the greater good of our community. Weekly seminar, course readings, discussions, and reflection assignments facilitate critical thinking and a deeper understanding of cultural diversity, citizenship, and how to contribute to positive social change in our community. Provides "real-world" experiences that exercise academic skills and knowledge applicable to each student's program of study and career goals. See http://servicelearning.asu.edu for more details.	N	PRA	Y	OPT	Teacher Education & Leadership	Dean, College of Teacher Education and Leadership	3.		
USL	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
USL	402	Service Learning:Tutoring Community Children	Tutoring and mentoring K-8 children attending under-resourced schools in an after-school or summer program. Design and implement fun learning activities focused on reading, writing, math, and other academic subjects. Process and learn from experience through reflective writing assignments. Fulfills community service hours required by some programs and scholarships. Honors credit available via contract. No exams. No experience with children required--training is provided.Any ASU students of any major and any level (freshman-senior and grad students) may enroll. Hours listed include 30-minutes travel time to/from internship site. Transportation from the Tempe campus is available. See http://servicelearning.asu.edu/internships for more details. Fee.	N	PRA	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	3.	C	
USL	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Teacher Education & Leadership	Teacher Preparation, Division W	1-12		
USL	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Teacher Education & Leadership	Teacher Preparation, Division W	1-4		
VTN	101	Elementary Vietnamese I	Basic skills in modern conversational Vietnamese and development of basic reading and writing skills, with special emphasis on tones.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		
VTN	102	Elementary Vietnamese II	Basic skills in modern conversational Vietnamese and development of basic reading and writing skills, with special emphasis on tones.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.		Pre-requisites:VTN 101 with C or better
VTN	201	Intermediate Vietnamese I	Improves speaking, listening, reading, and writing competence through dialogues, reading passages, pattern drill, and grammar and communicative exercises.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:VTN 102 with a grade of C or better or currently enrolled
VTN	202	Intermediate Vietnamese II	Improves speaking, listening, reading, and writing competence through dialogues, reading passages, pattern drill, and grammar and communicative exercises.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	5.	G	Pre-requisites:VTN 201 with a grade of C or better or currently enrolled
VTN	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	321	Advanced Vietnamese and Literature I	Readings from modern, contemporary, and folk literatures as well as current periodicals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:VTN 202 with a grade of D or better, or currently enrolled
VTN	322	Advanced Vietnamese and Literature II	Continuation of VTN 321. Readings from modern, contemporary, and folk literatures as well as current periodicals.	N	LEC	N	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	3.		Pre-requisites:VTN 321 with D or better
VTN	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of International Letters and Cultures	1-4		
VTN	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of International Letters and Cultures	1-3		
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WAC	107	Introduction to Academic Writing for International Students	For students from non-English-speaking countries. Combines classroom and supplemental instruction with intensive reading, writing, and discussion.	N	LEC	N	OPT	Liberal Arts and Sciences	Department of English	3.		Pre-requisites: TOEFL score of 0-559, ACT score of 0-18, SAT score of 0-460 or Accuplacer score of 0-4 (if test taken prior to May 12, 2009, then score 0-7)
WAC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	Department of English	1-4		
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WAC	101	Introduction to Academic Writing	Combines classroom and supplemental instruction to teach academic genres of writing, including definition, summary, and analysis.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.		Pre-requisites: ACT English score of 0-18; SAT Verbal score of 0- 460 or Accuplacer score of 0-4 (unless test taken prior to May 12, 2009, then score of 0-7)
WPC	101	Student Success in Business	Introduces students to resources that help them to succeed in the W. P. Carey School of Business.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		
WPC	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WPC	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WPC	301	Business Forum	Provides professional program business students with information on careers, interviewing, job hunting, and resumé skills. Must be taken in the first semester of the professional program for business students.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		Pre-requisites: Must be a W.P. Carey degree program business student
WPC	302	Honors Professional Development	Provides a foundation for developing key professional knowledge and skills required for future business and personal success. Strategic thinking and design, scenario development, verbal and written persuasion, direct marketing techniques, systems thinking, relationship development, research design, and decision-making models.	N	LEC	N	OPT	W.P. Carey School of Business	Prebusiness Office	1.		
WPC	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		Pre-requisites: Must have a minimum GPA of 2.00; Must have a minimum total earned hours of 56
WPC	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-12		
WPC	492	Honors Directed Study		N	LEC	N	Z1	W.P. Carey School of Business	Prebusiness Office	1-6		
WPC	493	Honors Thesis		N	LEC	N	Z1	W.P. Carey School of Business	Prebusiness Office	1-6	L	Pre-requisites: Must be an Honors student
WPC	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		Pre-requisites: Must be W. P. Carey BS or BA degree program student; junior or senior standing.
WPC	497	Honors Colloquium		Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-6		
WPC	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	Z1	W.P. Carey School of Business	Prebusiness Office	1-3		
WPC	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-12		
WPC	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	W.P. Carey School of Business	Prebusiness Office	1-4		
WSH	370	Sex and the City: Women, Sexuality, and Popular Culture	Examines the changing construction of young, sexually autonomous women in the city by popular media in post-WWII America.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: WST 100 or WST 300 with D or better
WSH	385	American Indian Women	Investigate the economic, political and ideological factors contributing to American Indian women's intellectual and creative activities.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites:WST 100 or WST 300 with a grade of D or currently enrolled
WSH	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WSH	413	Lesbian, Gay, and Gender Studies	Explores lesbian, gay, bisexual, transgender, and queer experiences in the U.S. and globally, from sociological, psychological, historical, and literary perspectives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	420	Women of Color in Film	Analyzes the history and representations of women of color in film and film industry through the intersections of gender, race, sexuality, class, and nationalism.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	
WSH	421	Girlhood and Adolescence	Examines the changing construction of girlhood and female adolescence through history, memoir, fiction, myth, music, and media.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU	
WSH	464	Voices and Visions	Explores the contributions of visionary women in the humanities; topics vary from semester to semester. May be repeated for credit when topics vary.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	470	Women and Popular Culture	Interdisciplinary examination of how gender is constructed in popular cultural forms.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	HU & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WSH	470	Women and Popular Culture	Interdisciplinary examination of how gender is constructed in popular cultural forms.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	HU & C	
WST	100	Women, Gender, and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300

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WST	191	First-Year Seminar	Small course emphasizing student-faculty discussion/interaction. Strongly recommended for first-year students.	Y	SEM	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-3		Pre-requisites: Must be a freshman with 25 or less total earned hours
WST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	300	Women and Gender in Contemporary Society	Interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	313	Women and Sexuality	Explores feminist theories about women's sexuality and the relationship of these theories and related research to women's experience.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	360	Women as Healers	Examines the role of women as caregivers, healers, physicians, midwives, and nurses in different cultures and historical periods.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & G	Pre-requisites: WST 100 or WST 300 with C or better
WST	372	Women in Judaism	Studies the legal, social, and cultural status of Jewish women in various historical and contemporary societies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: WST 100 or WST 300 with C or better
WST	373	Latina/Chicana Issues	Examines the roles Mexican American, Chicana, and/or Latina immigrant women play historically, socially, and politically in the United States.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	375	Women and Social Change	Combines research and theory on a contemporary social problem with a community action experience focusing on women's social change initiatives.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: WST 100 or WST 300 with C or better
WST	377	History of American Feminist Thought	Explores the development of American feminist theory from its roots to 1975.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	H & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	378	Global Feminist Theory	Global feminist theories and exploration of the intersections of gender, race, ethnicity, class, and nation through critical analysis.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	L & C & G	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	380	Race, Gender, and Class	Explores the intersections of race, class, and gender in culture and society.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & C	Pre-requisites: WST 100 or WST 300 with C or better
WST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	410	Poverty, Social Justice, and Global Health	From perspectives of anthropology and allied fields, explores critical, social justice, and ethical issues in health care, research, and disparities. Focuses on vulnerable and special populations.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	
WST	431	Women, Film, and Culture	Comparative international course explores ways feminist films have broken the mold in films focusing on women and gender.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	C	Pre-requisites: WST 100 or WST 300 with C or better
WST	440	Politics of Women's Health	Interdisciplinary exploration of how women's social, cultural, and economic position affect their health and health care.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		Pre-requisites: WST 100 or WST 300 with C or better
WST	447	Gender, Culture, and Development	Economic, cultural, and sociopolitical contexts for understanding women's roles related to health, family, work, education, and politics in developing countries.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	(L or SB) & G	Pre-requisites: May not sign up for WST 447 if received credit for SGS 454
WST	460	Women and the Body	Interdisciplinary look at how representations of women's bodies permeate culture and affect a woman's sense of self.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	477	Women and Violence	Global examination of forms of violence against women at the individual, institutional, and cultural levels, and efforts to control it.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.	SB & C	Pre-requisites: Must have completed either WST 100 or WST 300 with a grade of C or greater or be currently enrolled
WST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	492	Honors Directed Study		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6		
WST	493	Honors Thesis		N	LEC	N	Z1	Liberal Arts and Sciences	School of Social Transformation	1-6	L	Pre-requisites: Must be an Honors student
WST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		
WST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-7	L	Pre-requisites: WST 100 or 300 with a C or better or currently enrolled
WST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	Liberal Arts and Sciences	School of Social Transformation	1-3		
WST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-4		

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WST	601	Critical Concepts of Gender	Key concepts, theoretical frameworks, disciplinary and interdisciplinary approaches, and the critical debates that have shaped the field of gender studies.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	602	Mapping the Intersections of Gender	Theoretical concepts, metaphors, and frameworks employed by feminist scholars to understand the way gender articulates with other categories of difference.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	603	Engendering Methodology	Focuses on the methodologies, epistemologies, and ethical dilemmas of researching gender.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	640	Visual and Narrative Culture	Feminist analysis of gender representations in visual and narrative culture, including film, dramatic literature, fiction, and autobiography.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	684	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	690	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	IND	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	691	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	692	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a thesis or dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	701	Research Design and Proposal Development in Gender Studies	Prepares students for careers in gender studies by developing skills in research design, proposal writing, and identifying funding outlets.	N	LEC	N	OPT	Liberal Arts and Sciences	School of Social Transformation	3.		
WST	780	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	PRA	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	784	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	PRA	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	790	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	IND	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	791	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	Liberal Arts and Sciences	School of Social Transformation	1-12		
WST	792	Research	Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.	Y	RSC	Y	Z1	Liberal Arts and Sciences	School of Social Transformation	1-15		
WST	795	Continuing Registration	Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference, research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending theses or dissertations, or fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded, and no grade is assigned.	Y	IND	Y	Z3	Liberal Arts and Sciences	School of Social Transformation	1.		
WST	799	Dissertation	Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.	Y	RSC	Y	Z2	Liberal Arts and Sciences	School of Social Transformation	1-15		
WST	100	Women, Gender, and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	194	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	220	Gender, Media and Culture	Introduction to gender and the media including magazines, films, advertising, new media, and other popular culture forms.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	
WST	276	Feminist Foundations: Going to the Sources	Historical survey of sources influential in the development of the feminist movement in the United States.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H	
WST	294	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	300	Women and Gender in Contemporary Society	Interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
WST	333	Critical Perspectives on Sexuality	Examines critical theories of sexuality, including history, commerce, pleasure, LGBT issues, identity, medicalization of sexuality, disorders, sex crime, and pornography.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Pre-requisites: WST 100 or WST 300 with C or better
WST	370	Chronicling Women's Lives	Explores the lives of a selected group of American women as a point of departure for the chronicling of contemporary women's lives.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	Pre-requisites: WST 100 or WST 300 with C or better

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	376	Feminist Theory	Explores feminist theories and the intersection of gender, race, ethnicity, and class through critical analyses.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	H & C	Pre-requisites: WST 100 or WST 300 with C or better
WST	380	Race, Gender, and Class	Explores the intersections of race, class, and gender in culture and society.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	(L or SB) & C	Pre-requisites: WST 100 or WST 300 with C or better
WST	385	Psychology of Gender	Examines, from a psychological perspective, the similarities and differences in beliefs, attitudes, and behaviors of women and men.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: WST 100 or WST 300 with C or better
WST	390	Women and Religions	Role of women in religious traditions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisites: WST 100 or WST 300 with C or better
WST	394	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	430	Gender on the Borderlands	Examines women's status in the U.S.-Mexico borderlands through key issues such as migration, labor, violence, education, and culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	Pre-requisites: WST 100 or WST 300 with C or better
WST	431	Women, Film, and Culture	Comparative international course explores ways feminist films have broken the mold in films focusing on women and gender.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	C	Pre-requisites: WST 100 or WST 300 with C or better
WST	444	Gender, Health, and Bodies	Explores gender and health from a feminist perspective, including critical analyses of medicine, science, and popular culture.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB	Pre-requisites: WST 100 or WST 300 with C or better
WST	457	Women, Cultures, and Societies	Examines issues such as poverty, dependency, interdependency, race, class, and gender in different societies of the world.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & G	Pre-requisites: WST 100 or WST 300 with C or better
WST	467	Ethnic Women Writers	Concentrates on selected women writers of the U.S. who are Native American, African American, Latina, and Asian-American.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & C	Pre-requisites: WST 100 or WST 300 with C or better
WST	472	Women, Aging, and the Life Course	Critical evaluation of issues affecting women as they age, including media messages, cultural differences, economic issues, and relationships.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.		Pre-requisites: Minimum 60 hours (including 6 hours of PSY and/or SOC).
WST	473	Latina/Chicana Representation	Examines from an interdisciplinary perspective contemporary issues experienced by Chicana/Latina women in the U.S.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Pre-requisites: WST 100 or WST 300 with C or better
WST	475	Women of the Diaspora across Cultures	Examines the socioeconomic condition, political formation, and identities of contemporary indigenous, ethnic minority, immigrant, and migrant women globally.	N	LEC	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU	
WST	480	Gender Issues in Education	Examines the relationship between gender and educational access and outcomes as a result of public policy in a variety of communities and settings.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Pre-requisites: WST 100 or WST 300 with C or better
WST	483	Women Writers Across Cultures	Comparative approach to contemporary writings by women from around the world.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	HU & G	Pre-requisites: WST 100 or WST 300 with C or better
WST	484	Internship	Structured practical experience following a contract or plan, supervised by faculty and practitioners.	Y	LEC	Y	GNA	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	485	Women, Gender, and Leadership	Explores the gendered nature of leadership and studies strategies that enable women to lead successfully in areas such as business, education, and public service.	N	SEM	N	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	3.	SB & C	Pre-requisites: WST 100 or WST 300 with C or better
WST	492	Honors Directed Study		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6		
WST	493	Honors Thesis		N	LEC	N	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-6	L	Pre-requisites: Must be an Honors student
WST	494	Special Topics	Covers topics of immediate or special interest to a faculty member and students.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	498	Pro-Seminar	Small-group study and research for advanced students within their majors. Major status in the department or instructor approval is required.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-7	L	Pre-requisites: WST 100 or 300 with a C or better or currently enrolled; ENG 101 or 105 with a C or better or currently enrolled
WST	499	Individualized Instruction	Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application well in advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course.	Y	LEC	Y	GNA	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-3		
WST	580	Practicum	Structured practical experience in a professional program, supervised by a practitioner and/or faculty member with whom the student works closely.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	590	Reading and Conference	Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include such assignments as intensive reading in a specialized area, writing a synthesis of literature on a specified topic, or writing a literature review of a topic.	Y	LEC	Y	Z1	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		
WST	591	Seminar	A small class emphasizing discussion, presentations by students, and written research papers.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-12		

Subject	Catalog Nbr	Course Title	Course Description	Allow Mult Enroll	Component Primary	Crse Repeatable	Grading Basis	College	Department	Units	General Studies	Requirements
WST	598	Special Topics	Topical courses not offered in regular course rotation--e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.	Y	LEC	Y	OPT	New Interdis Arts & Sciences	Division of Humanities, Arts, and Cultural Studies	1-4		
WST	100	Women, Gender, and Society	Interdisciplinary introduction examining critical issues in women's studies.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not sign up for WST 100, who have received a D or better in WST 300
WST	300	Women and Gender in Contemporary Society	Interdisciplinary examination of such topics as gender roles, work, education, sexuality, politics, health, and law.	N	LEC	N	OPT	School of Letters & Sciences	School of Letters and Sciences	3.	SB & C	Students may not enroll in WST 300, if they have received a D or better in WST 100
XBA	101	Campus Match: Business	This prefix is used only to schedule clusters of classes for various university programs.	N	LEC	N	OPT	W.P. Carey School of Business	Dean, W.P. Carey School of Business	0.		
XEE	101	Campus Match:Extended Ed	This prefix is used only to schedule clusters of classes for various university programs.	N	LEC	N	OPT	EE - CONV	Arizona State University	0.		
YDL	201	Introduction to Youth Studies	Introduces a perspective on the everyday lives of youth in regard to experience, sex, age, relational context, and identity.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	210	Urban Youth and Youth Studies	Explores the lives of young people from 12 to 22 years old in urban neighborhoods, communities, and cities.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	301	Adolescent and Youth Development Leadership	Applies theory and research about youth, including how findings can be used and how theories facilitate behavior understanding.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		
YDL	450	Youth Policy	Examines various federal and state policies designed for youth, how and why policies for youth are constructed.	N	LEC	N	OPT	College of Public Programs	School of Community Resources and Development	3.		